UNIVERSITY OF MEDICINE AND PHARMACY

"IULIU HAŢIEGANU" Cluj - Napoca

Faculty of Dental Medicine

ENGLISH STUDY PROGRAM
ECTS GUIDE

ACADEMIC YEAR
2022-2023

Authors
Dean
Assoc. Prof. Dr. Cristian Mihail Dinu

Vice-Deans
Prof. Dr. Ondine Lucaciu
Prof. Dr. Aranka Ilea
Assoc. Prof. Dr. Marius Manole

Editorial Board
Assoc. Prof. Dr. Andrea Chisnoiu
Lecturer Dr. Alexandru Mester

Secretary
Alexandra Tolnai – chief secretary of faculty

Alexandra Siladi – secretary

Delia Moiș – secretary

Raluca David – secretary

Silvana Rusan – secretary

Oana Ghineț – secretary

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FACULTY OF DENTAL MEDICINE

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1. DEAN'S MESSAGE

The medical profession has always been an important choice for the most valuable young people due to its primordial nobility and solid social recognition. Dentistry, probably the most liberal of all the medical specialties, offers the specific responsibility of the medical profession, but also gives a high degree of independence, offering to the one who practices it, the chance to be a dental practitioner and an entrepreneur at the same time.

In 2021, dental medicine is in full technological advance, the digital age being a certainty; the mobility of the labor force existing in the European and extra-European space, represents a good opportunity for the young graduates. In this context, the Faculty of Dental Medicine of the University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca offers the possibility to obtain one of the most appreciated medical degrees in the world; doctor of dental medicine.

Established in 1919, by Professor Gheorghe Bilaşcu, at the initiative of Professor Iuliu Haţieganu, the medical education in dentistry at the university was the first compulsory dental education in Romania. The Faculty of Dental Medicine of the University of Medicine and Pharmacy "Iuliu Haţieganu" in Cluj-Napoca, more than one hundred years after its establishment, is in the leading position in the national landscape of the faculties of profile and is a landmark in the European space through the tradition of training foreign students as professionals with recognized value in their countries of origin.

The human resource, represented by the teaching staff, is the main factor that ensures the accomplishment of the mission of the Faculty and which, along with tradition, constitutes its most important values. The outstanding quality of the academic staff, associated with a generous infrastructure and a modern material base, creates the premises for optimal training for over 1200 students for the specialty of dental medicine with a duration of six years and for the specialization of dental technician with a duration of three years.

The academic formation in dental medicine benefits of three lines of study in Romanian, French and English languages. Also, within the Faculty one can access postgraduate studies of masters, PhD and specialization.

Cluj-Napoca, the capital and heart of Transylvania, is a city with an ancient history, certified since the Roman Empire, a cradle of culture and civilization throughout time. Nowadays, Cluj-Napoca is a modern and dynamic city from an economical point of view, a European city with six universities, a cosmopolitan, multicultural city that offers its students an intense and stimulating social and cultural experience.

Young people who want to study in a recognized and appreciated academic environment, to live and to study in an eminent university city, with a rich social and cultural life, will find the dream place in the medical university of Cluj-Napoca. The Faculty of Dental Medicine is waiting for you to come, to join the dental community of Cluj-Napoca and together, to increase the value and prestige of the Cluj-Napoca School of Dentistry!

Vivat Academia!

Dean, Assoc. Prof. Dr. Cristian Mihail Dinu

2. BRIEF HISTORY OF THE FACULTY OF DENTAL MEDICINE FROM CLUJ

The medical teaching program in Cluj started in 1581, being organized and having, like all around the world, a religious feature.

Cluj School of Medicine and Surgery was created in 1775, as a college where teaching was performed also in Romanian language.

In 1897, the University called "Franz Josef" was created in Cluj and it also included the Faculty of Medicine in which Dentistry was amongst the subject being taught.

In 1919, the Faculty of Medicine from Cluj is founded as a part of "Dacia Superioară" University, having Romanian as the teaching language.

The Dental School exists, at the beginning, as a part of this Faculty of Medicine, starting then to evolve and develop as a distinct faculty.

The founder and organizer of Cluj Dental School was Prof. Dr. Gheorghe Bilaşcu, leader of Dentistry teaching between 1919-1926. The dental medicine knowledge became compulsory all over Romania, as part of the basic curricula of the medical students. This Department of Stomatology was the first one created as part of medical teaching in Romania.

A new step of the Dental School occurred in 1932, when Assoc. Prof. Dr. Ion Aleman (1891-1948) – an alumni of Prof. Dr. Gheorghe Bilaşcu, was appointed as chief of the Dentistry Department of the Faculty of Medicine. Prof. Dr. Ion Aleman developed the dental teaching and published a book for students training.

Undergraduate formation in dentistry was organized as a separate faculty only in 1949, having Prof. Dr. Vasile Vasilescu as the first dean (1949-1950) of the Faculty of Dentistry. At the beginning, there were only three departments: Orthopedic Dentistry, Dental Therapy and Maxillofacial Surgery. Afterwards, between 1961-1963, Orthopedic Dentistry was divided into Pediatric Dentistry (Pedodontics-Orthodontics) and Dental Propaedeutics.

In 1972, the Dental Radiology Department was created, led by Prof. Dr. Hugo Ratiu (1927-2004) and the divisions of: Microbiology, Biochemistry, Anatomy, Pharmacology, Histology, Physiology, Physiopathology, General Surgery, Obstetrics – gynecology (1977-1978) General Hygiene and Social Medicine were included.

Throughout its history, Cluj Medical School formed and consolidated its prestige due to worldwide recognized academics. Among the most important professors recorded in the history of the Dental Faculty were: Prof. Dr. Vasile Vasilescu (1899-1992) in Orthopedic Dentistry, Assoc. Prof. Dr. Mauriţiu Schapira (1907-1990) Pediatric Dentistry, Prof. Dr. Iosif Baba (1909-1991) at Oro-dental Therapy, Prof. Dr. Cornel Oprişiu (1908) at Maxillofacial Surgery. The academic staff of our university and faculty have created the unmistakable pattern of Cluj medical school, which focuses on the medical staff professionalism accompanied by the care and respect due to a suffering human being.

In 1990 the name became the University of Medicine and Pharmacy, which included the following faculties: Medicine, Stomatology and Pharmacy, whereas in 1993, the university is called University of Medicine and Pharmacy "Iuliu

Haţieganu", receiving the name of the first Romanian professor in Medical Clinics, who was also the first Dean of the Faculty of Medicine.

Since the university year 1997-1998, the credits system ECTS was established and our faculty rallied to it. In 2008, following Romania joining the European Union, the official title of Stomatology became Dental Medicine. The old name followed the tradition of Greek and Latin origin titles, but it did not match the EU requirements.

The Faculty offer grew into a more diverse one, besides the Romanian section, the French section (since 2001) and the English section (since 2007) were created.

Nowadays, the Faculty of Dental Medicine, having European accreditation, prepares, based on an European curricula, experts able to provide specialized medical care. Through the research activity, our experts contribute to the development of theoretical and practical knowledge in dentistry.

3. ACADEMIC MANAGEMENT

3.1. Academic management of the University

3.1.1. The Senate

The Senate is the superior management forum of the entire academic community in all fields of activity. The Senate consists of teaching staff and students. All members of the Senate are chosen according to the election regulations drafted and approved by the Senate. All chosen members of the Senate (teaching staff and students) share equal rights and obligations.

The Senate, Senate Bureau and the Rector take decisions concerning the main issues of the educational process, based on the university's autonomy, respecting the academic freedom and the regulations of the Ministry of Education and Research. The Senate consists of academic staff and of students (25%). The University Senate includes four academic staff of the Faculty of Dental Medicine.

3.1.2. The Board of the University of Medicine and Pharmacy "Iuliu Haţieganu"

Rector	**Prof. Dr. Anca Dana Buzoianu**
President of the Senate	**Prof. Dr. Daniel Mureşan**
Vice-Rector for Postgraduate studies and Residency	**Assoc. Prof. Dr. George Călin Dindelegan**
Vice-Rector for Didactic Activities	**Prof. Dr. Carmen Mihaela Mihu**

Vice-Rector for Academic development and University Administration	**Prof. Dr. Sorin Claudiu Man**
Vice-Rector for Research	**Prof. Dr. Mihaela Felicia Băciuț**
Vice-Rector for Quality Management and International Relations	**Prof. Dr. Radu Nicolae Oprean**
Doctoral Studies Responsible	**Prof. Dr. Dana Pop**

3.2. Academic Management of the Faculty of Dental Medicine

3.2.1. The Council of the Faculty of Dental Medicine

The Council is the highest governing body of the Faculty of Dental Medicine. It draws the development strategy, approves the teaching planning, it drafts the number of students for each specialization and each teaching program, it approves the subjects for the graduate, master and PhD exams, it validates the departments chiefs, it decides the amount of scholarships within the available funding. It consists of 15 academic members and 5 students, chosen based on the Electoral Regulations. The representatives of international students, the head of faculty administration, teaching staff and resident physicians can be occasionally or permanently invited to participate in the Board meetings, if they are involved in the daily agenda. The Dean of the Faculty chairs the Council.

Dean	**Assoc. Prof. Dr. Cristian Mihail Dinu**
Vice-Dean	Prof. Dr.Aranka Ilea
Vice-Dean	Assoc. Prof. Dr.Marius Manole
Vice-Dean	Prof. Dr. Ondine Lucaciu (member)
Member	Prof. Dr. Diana Dudea
Member	Prof. Dr. Alexandra Roman
Member	Prof. Dr. Mîndra Badea
Member	Prof. Dr. Mihaela Băciuț
Member	Prof. Dr. Simion Bran
Member	Assoc. Prof. Dr. Dana Feștilă
Member	Assoc. Prof. Dr.Ada Delean

Member	Prof. Dr. Mihaela Hedeșiu
Member	Prof. Dr.Horațiu Rotar
Member	Prof. Dr.Smaranda Buduru
Member	Lecturer Dr. Sanda Cîmpean
Member	Lecturer Dr. Laurențiu Pascu
Member	Lecturer Dr. Cristian Olteanu
Member	Asist. Prof. Dr. Marius Bud

3.2.2. The Council Board

The Faculty Board is in charge for the implementation of Council's decisions. As a rule, the Council meetings are held weekly. The Faculty Board consists of Dean, Vice-Deans, Head of Faculty Administration and dental students representatives. The Dean is responsible for the entire activity in the Faculty, and represents the Faculty at University level and outside it; he coordinates its activity and supervises the implementation of the Faculty Council's decisions.

The activity of the academic management team of the Faculty is supported by an administrative team of technicians chaired by the Faculty Head Secretary.

The academic management of the University of Medicine and Pharmacy "Iuliu Haţieganu"and of the Faculty of Dental Medicine was elected in February 2020 for a four years mandate and it consists of the following members:

Dean	**Assoc. Prof. Dr. Cristian Mihail Dinu**
Vice-Dean for Scientific Affairs	**Prof. Dr. Aranka Ilea**
Vice-Dean for Educational Problems	**Prof. Dr. Ondine Lucaciu**
Vice-Dean for Management and Academic Development	**Assoc. Prof. Dr. Marius Manole**

Address
Faculty of Dental Medicine, Dean`s Office
University of Medicine and Pharmacy "Iuliu Haţieganu"
4 Louis Pasteur Street, Second Floor
Cluj-Napoca, 400349, Romania
Phone: +40 264406844; Fax: +40 264597257

3.3. Educational Offer

A. Undergraduate Degree Programs

Currently, the educational offer of our faculty consists in:

- Romanian Section, French Section, English Section – Dental Medicine study program

Study domain: HEALTHCARE

- **Study program DENTAL MEDICINE (360 ECTS)**
  Graduate diploma in dental medicine, university studies for 6 years
- **Study program DENTAL TECHNOLOGY (180 ECTS)**
  Graduate diploma in dental technology, university studies for 3 years

B. Postgraduate Programs

- **Master Degree**
  The Master program is postgraduate education that provides studies among the undergraduate subjects or a closely related field, aiming to develop scientific research abilities and building-up a base for a PhD study program.
  Master Program: "Judicial Dental Medicine" (2 years, 120 ETCS)
- **PhD Degree**

  University studies for PhD are a program offered to graduates that aim to obtain extended skills in scientific research or to pursue a teaching career.

C. Postgraduate residency programs in Dental Field - 3 to 5 years of residency training

- Dento-Alveolar Surgery, Stomatological and Maxillo-Facial Surgery;
- Orthodontics and Dentofacial Orthopedics, Pedodontics;
- Endodontics, Prosthodontics, Periodontology, General Dentistry.

D. Postgraduate Continuous Medical Education

- A large amount of postgraduate training courses are available, which include all dental medicine specialties.

3.4. Departments of the Faculty of Dental Medicine

Department I – Maxillo-Facial Surgery and Radiology

- **Head of Department - Prof. Dr. Mihaela Hedeșiu**
  1. Oral and Cranio-Maxillofacial Surgery
  2. Facial and Neck Surgery and Oto-Rhino-Laryngology
  3. Maxillo-Facial Surgery and Implantology
  4. Dental Radiology
  5. Medical Specialities

Department II - Conservative Dentistry

- **Head of Department - Assoc. Prof. Dr. Ada Delean**
  1. Pedodontics
  2. Orthodontics
  3. Odontology, Endodontics, Cariology, Oral Pathology

Department III – Oral Rehabilitation

- **Head of Department - Prof. Dr. Alexandra Roman**
  1. Periodontology
  2. Prevention in Dental Medicine
  3. Oral Rehabilitation
  4. Oral Health

Department IV - Prosthetic Dentistry and Dental Materials

- **Head of Department - Prof. Dr. Diana Dudea**
  1. Prosthetic Dentistry
  2. Dental Materials
  3. Dental Propaedeutics and Esthetics

3.5. Divisions of the Faculty of Dental Medicine

1. Oral and Cranio-Maxillo-Facial Surgery
2. Maxillo-Facial Surgery and Implantology
3. Facial and Neck Surgery and Oto-Rhino-Laryngology
4. Dental Materials, Ergonomics
5. Odontology, Endodontics, Cariology, Oral Pathology
6. Orthodontics
7. Periodontology
8. Prevention in Dental Medicine
9. Pedodontics
10. Dental Propaedeutics and Esthetics
11. Prosthetic Dentistry
12. Dental Radiology
13. Oral Rehabilitation
14. Oral Health
15. Medical Specialities

4. STRUCTURE OF THE ACADEMIC YEAR 2022-2023

The academic year consists of two semesters with 14-weeks terms, each followed by a 4-week exam session.

The study programs are harmonized with the European Regulations regarding mutual recognition of diplomas in the European Union, while the syllabuses are permanently updated and modernized.

Dental higher education is provided in a linear system over 6 years (12 semesters). The courses are grouped into the following categories: compulsory optional and facultative.

Mandatory courses provide students with the fundamental concepts required by their future profession, while elective and optional courses facilitate the deeper understanding of specific knowledge in the field and personalized professional development, according to the student's skills and needs.

Studies and activities are quantified and validated on the basis of The European Credit Transfer and Accumulation System (ECTS). In the case of the program studies taught in French and English, beginning with the fourth year of study, the theoretical classes are in English and French, as for the first years, whereas, practical activities are in Romanian.

4.1. Structure of linear undergraduate studies Ist – VIth year

4.1.1. Undergraduate studies of Ist – Vth year

Dental Medicine (1ST to 5TH Year)

First Semester

03 October 2022 – 16 December 2022	Classes (11 weeks)
19 December 2022 - 02 January 2023	Christmas Holiday (2 weeks)
03 January 2023 – 20 January 2023	Classes (3 weeks)
23 January 2023 – 17 February 2023	Examination Session (4 weeks)
20 February 2023 – 24 February 2023	Winter Holiday (1 week)

Second Semester

27 February 2023 – 09 June 2023	Classes (14 weeks) Easter holiday (1 week, 17-21 April 2023)
12 June 2023 – 07 July 2023	Examination session (4 weeks)
11 July 2023 – 14 July 2023	Reexamination Session 1
18 July 2023 – 21 July 2023	Reexamination Session 2
24 July 2023 – 29 September 2023	Medical practice and summer holiday

At our faculty, during the Summer Vacation, students must perform a number of 160 hours of dental practice.

4.1.2. Undergraduate studies of VIth year

First Semester

03 October 2022 – 16 December 2022	Classes (11 weeks)
19 December 2022 - 02 January 2023	Christmas Holiday (2 weeks)
03 January 2023 – 20 January 2023	Classes (3 weeks)
23 January 2023 – 17 February 2023	Examination Session (4 weeks)
20 February 2023 – 24 February 2023	Winter Holiday (1 week)

Second Semester

27 February 2023 – 09 June 2023	Classes (14 weeks) Easter holiday (1 week, 17-21 April 2023)
12 June 2023 – 30 June 2023	Examination session (3 weeks)
11 July 2023 – 14 July 2023	Reexamination Session 1
18 July 2023 – 21 July 2023	Reexamination Session 2
July 2023	Final license exam Dental Medicine English and French sections

5. STUDENTS REGISTRATION TO THE FACULTY OF DENTAL MEDICINE

5.1. Registration in the First Year of study

- The enrollment for studies of the candidates admitted and confirmed following the admission methodology of international students, is made on the basis of the enrollment decision issued by the Rector.
- The enrollment in studies is made after the completion, by the student, of a file of enrollment in the faculty and is conditioned by the signing of the study contract.
  - Upon enrollment, each student will be given a unique enrollment number, valid for the entire period of schooling in the faculty in which he was admitted. These numbers are awarded successively for each series of students by field / curriculum / language of instruction. The student re-enrolled by the decision of the Rector, will receive the same registration number under which he was initially enrolled.
  - Students coming through permanent mobility (transfer) or admitted / enrolled in the senior year will receive a unique registration number, according to the procedure for assigning the registration number.
- Registration of students paying tuition is conditioned by signing the study contract and paying the tuition fee.

- For foreign students, scholarship holders of the Romanian state and on their own non-currency account, registration is made on the basis of the nominal order issued by the Ministry of Education (ME), based on the approval issued by the university management and signing of the study contract.
- For international students on their own currency account, registration is made on the basis of the provisional registration document issued by the International Students Department, and an acceptance letter, where applicable. The final registration is made:
    - After recognition and equivalence of high school studies by the Ministry of Education;
    - After verification and approval of the student's personal file by the Ministry of Education;
    - On the basis of the ME order for final registration;
    - On the basis of Rector's decision; before the 1st of December of the current academic year
- The complete file of foreign students, prepared at the International Students Department, is handed over to the Dean's office after its verification and approval by the relevant ministry, according to the admission schedule for the current academic year.
- Applicants accepted in the 1st year of study and not registered in the timeframe decided by the University Board, loose their right to get registered.

International students are welcome, both in the academic community and in the civic community of our city. In addition to medical education in the Romanian language, in the faculty, there have been teaching lines in English and French languages for over ten years, with increasing attractiveness for many students from over 25 countries.

International students are admitted to studies following the evaluation of documents certifying school performance and personal achievements. The admission methodology is validated by the University Senate and completed with a series of criteria specific to the Faculty of Dentistry and approved by the Faculty Council.

Candidates must have their high school studies completed with the baccalaureate exam or its equivalent and confirmed by the ME. All documents presented must be legalized.

Candidates admitted in the first year and not enrolled within the period set by the university management, lose the right to be registered.

Each student is registered in the matriculation register under a unique number, valid for the entire period of schooling, at the study program to which he/she was admitted.

The student's file, for the entire schooling period, includes documents according to Art. 30, of the Regulation of didactic activity for the license cycle for the academic year 2022-2023 included in the annexes of the Regulation:

- Romanian citizen student - Annex 1
- Student citizen of the European Union - Annex 2
- Student citizen from third countries of the European Union - Annex 2

For foreign students, the personal file will include:

- Baccalaureate diploma in the original and its translation into a language of international circulation, legalized, and targeted by the Embassy of the issuing country in Romania.
- High school diploma or echivalent, in original document issued in Romanian, English or French, an authenticated copy of the original document.
- High school Examination Transcript of Records.
- Transcript of records for grades 9-12/13 (only for Non-european)
- The language test (Romanian, French or English), depending on the language of teaching section to which the student requests to be registered.
- Passport copy.
- Birth certificate in legalized copy.
- Ordinal ME including scholarship, on their own account – lei, non-currency, currency.
- The registration form.
- Medical analyses established by the university's management.
- Acceptance, under signature, of knowledge and compliance with the teaching regulations and examination of students, as well as of the study contract.
- Four passport photos,
- Study contract.

The complete file of foreign students, drafted in the Department for International Students, is handed to the Dean’s Office, after being verified and approved by the ME, according to the admission calendar for the current academic year.

Candidates admitted as first year students who fail to register during the period established by the decision of the University Management Board lose the right to be matriculated.

Students who were admitted based on the academic achievements included in their application file can register within a maximum if 30 days from the beginning of the academic year.

Also provided in the Regulation of didactic activity, the necessary documents: to the transferred student Annex 3, to the re-enrolled student Annex 4, to the student in mobility Annex 5, as well as other necessary documents Annex 6.

The student has the obligation to complete the personal file, throughout the study program, with documents regarding the modification / updating of the existing information. The modifications will be brought to the notice of the secretariat within 30 days from their occurence.

At the beginning of the academic year, the Dean's Office will issue a "Student Grade Book" to each student. All grades obtained in exams or other forms of knowledge evaluation, including grades from failed exams, are written in the Student's Grade Book. The marks will be written and signed by the examining teacher. In cases of transfer, interruption or expulsion from studies, the Dean's Office will withdraw the student grade book and, where appropriate, the transport card.

5.2. Registration in the IInd –VIth year of study

Enrollment of the student in the Second Year and in the following years of study is based on the completion of the registration form and signing the "Tax" Annex to the study contract. The sheet shall be completed within the first 15 days of the beginning of the academic year. Enrollment is based on the professional results and marks obtained in the previous academic year, with the obligation to acquire the minimum number of credits needed to promote a university year (minimum 50 credits). (Art. 40. of the Regulation states that for the promotion in a year of higher education it is necessary that the amount of remaining credits from the lower years does not exceed 10 credit units.)

For years I-II, a student who has subjects not promoted in the years of schooling totaling 10 or less than 10 remaining credits, will be enrolled in the year of study superior to the one from which he / she comes; for years I-II, the student who totals more than 10 remaining credits for the subjects not promoted, will be enrolled in a complementary year;

For the IIIrd year, enrollment in the higher study year is done only after the accumulation of the 180 credits related to the first 3 years of undergraduate studies. Otherwise, the student is enrolled in a complementary year.

For years IV-VI, a student is enrolled in the senior year if he / she passes all 60 ECTS credits related to the current year (he / she is an integralist).

The students declared in the complementary year will be enrolled in the year of studies that they repeat, and will pay their financial obligations at the terms and amounts established annually by the university management.

6. EUROPEAN TRANSFERABLE CREDIT SYSTEM

The European Credit Transfer and Accumulation System (ECTS) was created with the aim of facilitating the mobility of students from one university to another. The European Union encourages study periods at partner universities, and the Bologna and Berlin Declaration affirms the need to overcome obstacles to academic mobility.

The student mobility of the Socrates - Erasmus programs offers the possibility for students to study for a semester or year at another European university, and then, return to the home university, where they will finish their studies and from where, they will receive their diploma. In this way, the student benefits from continuity of studies in conditions where he has access to other educational programs and to a new cultural, social and linguistic academic environment. The enrollment of international students coming through Erasmus +, SEE programs, within other programs or mobility agreements is presented in Chapter 7 of the Teaching Activity Regulation. The main objective of creating this system was to support the mobility of students in order to be able to complete their training by adding the experience of other European universities and to obtain total academic recognition for the period they spent away from the institution of origin.

Total academic recognition translates into the replacement of a period of study at the university of origin with the period spent at the university abroad, without the studies in the country of origin being extended by that period.

ECTS credits

ECTS credits are the amount allocated to courses and practical activities in order to evaluate the efforts required for students to accumulate the notions. They reflect the efforts made to complete a course, compared to the total effort made to graduate a university year in this institution, a process that involves: courses, seminars, practical activities, individual work in the laboratory, library and home, exams and other types of evaluation.

In the ECTS system, 60 credits represent one year of study (work done that year); usually, 30 credits are allocated for each semester.

ECTS credits are also allocated to practical activities and the preparation of the bachelor's thesis, when they are part of the normal program of studies at both, the institution of origin and the host institution.

Each course is allocated a number of credits, given by the volume of activity necessary to study and promote the discipline, which will be obtained only by students who fully promote the activities following the exams or other types of assessment.

The student can follow, during a university year, several optional courses, the credits obtained in addition constitute additional credits, they cannot replace the credits related to the compulsory subjects.

ECTS Scoring Scale

In general, the results of the examination and evaluation are expressed in grades. There are various scoring systems in Europe, which is why an ECTS Scoring Scale has been created to match the grades that students obtain at the host university. This procedure provides other information about the work done by the student, but does not replace the grade that the student will receive at the university of origin.

How to apply the scale

The main ECTS tools to facilitate academic recognition are:

- Information package
- Study contract (Learning Agreement)
- Transcript of Records
- The information package is provided by all institutions wishing to use the ECTS system; it details the courses available at that university. Also, general information about the institution, its location, student accommodation, administrative procedures necessary for registration and academic calendar are provided. This package shall be updated annually.
- The Learning Agreement describes the study program abroad and is completed by the student, in collaboration with the two academic institutions, before it reaches the university – host of study abroad. It contains, in addition to the ECTS credits granted, the grade received by the student under the local system, as well as, the ECTS scoring grid. The combination of ECTS credits and grades obtained according to the local system describes quantitatively and qualitatively the activity done by the student within the university – host.

These tools are then used by department and institutional coordinators on ECTS administrative and academic issues, appointed by each institution. Using ECTS, ensures the transparency of the curricula and academic performance of students, thus, creating the correct framework for academic recognition at European level.

How to achieve mobility in the ECTS system

Contact the department coordinator of the institution to which it belongs and go through the information package of other institutions to choose the optimal destination and prepare their program of studies abroad.

Academic recognition

The ECTS study program must be approved by both, the university of origin and the one receiving the student, before the student moves to that country. If the academic program described in the study contract is satisfactorily fulfilled by the student, it will be fully recognized by the university of provenance. This means that the volume of study accumulated at the university-host transposed into ECTS credits will be the equivalent of the same volume of study that the student should have accumulated at the home university.

Transfer of ECTS credits

Academic institutions prepare and transmit to each other transcripts for each student who benefits from ECTS mobility. A copy of the transcript remains with the student and is verified by the university of provenance and the host, before and after the deployment of mobility.

Continued studies abroad in the ECTS system

A student who has obtained from ECTS mobility can stay at the host university to complete their studies there or to collaborate with a third institution for his/her training. This is possible, with the condition that both institutions are in agreement and that the student accepts the conditions for obtaining a diploma or transfer.

The Transcript of Records provides a history of the student's academic journey; it is the document on the basis of which institutions make decisions on the continuation of studies in ECTS mobility and the European openness to academic mobility in general.

Student assessment criteria and ECTS Scoring Scale

Courses and modules of study are evaluated by written and oral examinations, practical work, demonstrations and other applicable methods. Students receive information about the evaluation criteria at the beginning of the study module.

ECTS	Marks in Romania	Definitions
A	10	Excellent – special presentation, with minor mistakes
B	9	Very good - above average presentation with minor mistakes
C	7 – 8	Good presentation with a few considerable mistakes
D	6	Satisfactory - medium, with significant lags
E	5	Enough - the minimum knowledge required
Fx	4	Failed - requires more work to receive credits
F	3	Failed - a lot of extra work is required

For further information on the ECTS credit system and its application in the UMF "Iuliu Haţieganu"Cluj-Napoca, please visit the regulation of the European Credit Transfer and Accumulation System credits (ECTS) on the following link:

- http//www.umfcluj.ro/university/regulation ects.pdf

ECTS Coordinators

ECTS Coordinators on University: Vice-Rector Prof. Dr. Carmen Mihu
Faculty of Medicine: Vice-Dean Prof. Dr. Simona Clichici
Faculty of Dental Medicine: Vice-Dean Prof. Dr. Ondine Lucaciu
Faculty of Pharmacy: Vice-Dean Prof. Dr. Bela Kiss

Teaching language

The teaching language at UMF "Iuliu Haţieganu" as well as at the Faculty of Dental Medicine is Romanian. The Faculty of Dental Medicine also offers lines of study in English and French.

Language opportunities

All students of our university have the opportunity to study a European language. Through these courses, students are able to acquire practical skills – reading, writing, understanding the language. All facilities of the Department of Modern Languages are available to both students and teachers from the University.

Scholarships

UMFIH may offer scholarships to foreign citizens from the extra-budgetary income. The performance scholarship is awarded during a one-semester academic year, based on the academic performance of the previous semester.

The professional performance scholarship is awarded starting with the second semester of the first year of study and is up to 50% of the student's tuition fee for that semester. The scholarship fund is allocated by the decision of the UMFIH Senate, is allocated to faculties, years of study and study programs, proportional to the number of foreign students who study on their own currency, registered for the day classes.

The ones who can benefit from these scholarships are only foreign citizens who study on their own currency and have carried out all the teaching activities in the educational plan, with no remaining credits from previous years and are integralists at the time of the scholarship.

Accommodation and meals

The University owns its own campus; a total of 9 dorms have a capacity of 2700 seats. Most Romanian students from outside Cluj live in the university

dormitories. Foreign students often prefer to live in rented apartments. The University Restaurant, located near the campus, offers diverse menus and has a capacity of 150 seats. There are also a multitude of restaurants and fast food restaurants with reasonable prices in the city center and near the medical institutions where the courses take place.

Healthcare

The student clinic is located in the center of the city, near the administrative building of the University. Here, students can benefit from a wide range of free medical services. The Student Pharmacy offers free drugs based on prescriptions issued by the Student Medical Service.

Sports

The Student Sports Club, founded in 1966, has a court and a gym where students can practice basketball, volleyball, football, aerobics, tennis, etc.

7. THE STRUCTURE OF THE LEARNING PLAN

7.1. The Courses Structure

The structure of all the study programs issued by the UMF is based on the academic year system divided into two semesters. The course education is linear, with 2 sessions, one at the end of each semester (winter and summer).

The studies include theoretical courses, clinical internships, seminars, practical work, optional courses, facultative courses and the bachelor's exam. The courses of the dental medicine program aim to familiarize students with the main applications of this professional field and their theoretical basis. After graduation, the student must be able to work independently as a dental expert or researcher.

Language studies are absolutely necessary for Romanian students, because obtaining a good level of competence in a foreign language is essential in completing training and maintaining professional knowledge, as well as, for medical practice, in relation to the increasing mobility of citizens of the European Union and other countries. The Faculty supports foreign students with the study of the Romanian language because from the fourth year, the clinical internships are carried out in the Romanian language.

Optional Courses

Each academic year is allocated a number of two optional courses. Students thus complete an optional course every semester. The optional course is mandatory for study. According to the university curriculum, each optional course is assigned 14 hours/semester and 2 ECTS credits.

Facultative Courses

In each academic year to the mandatory courses, there are added a number of facultative courses. They are intended to deepen the knowledge gained during the mandatory courses. The choice of these courses, their attendance and related examinations are not mandatory. Facultative courses are not credited.

7.2. License Examination

The final exam at the UMF "Iuliu Haţieganu"is the license exam. For university studies, the bachelor's exam consists of 2 exams:

1. Dental Specialty Examination

- Written Examination: national component of the bachelor's exam, supported by all universities of profile on the same day and on the same bibliography.
- Practical Examination: specific to each Faculty of Dental Medicine.

2. Oral presentation of the BachelorThesis

- The minimum average for passing the license exam is 6 (six).
- The bachelor's exam is held in July 2023, and students who have not fulfilled the necessary credits for entry the license exam by the end of the year, may have the possibility of another session in February next year.

The Faculty of Dental Medicine published a practical guide addressed to students for preparing their graduation thesis (http://www.meddent.umfcluj.ro/en/educatie-stoma-uk/studenti-md-uk/licenta-md-uk).

8. ORGANIZATION OF DIDACTIC ACTIVITIES, EXAMINATIONS, PROMOTION OF THE UNIVERSITY YEAR

In order to fully achieve the number of credits related to a study discipline, students are required to participate in at least 70% of the courses of that discipline. Absences in an amount greater than 30% of the total class hours result in the student not being admitted to the exam in that session. Recovery of absences from class is done within the same week (no fees are charged for absences from classes). The practical activity program must be completed in full by each student. Attendance at practical activities (internships, practical works, seminars) is mandatory, unrecovered absences are not allowed for practical works / internships. The recovery percentage is a maximum of 20%. The Regulation of teaching activity provides the conditions and documents necessary to motivate absences.

The assessment of students 'knowledge is done through exams (they are scheduled between 8.00-20.00, it is not allowed to exceed 20.00), and the assessment of students' knowledge is done with grades from 1 to 10. The minimum promotion grade is grade 5. Final forms examination are represented by: the theoretical examination and the practical examination. The disciplines to which, specifically, a practical exam cannot be associated, will carry out, instead, a final evaluation colloquium. Passing the final exam is conditioned by obtaining the passing grade (minimum 5) for both forms of examination (both written and practical). If the student is present at one test of the exam but is absent at the second, for the absent test the point is awarded ex officio and the student is declared unpromoted. At the re-examination the student only participates in the examination that was not passed.

Students will be admitted to the exam only with the student card (or with a temporary certification issued by the Dean's Office) and with his/her ID card or passport. When entering the examination room, the students are identified by the examiners based on these documents.

Before the beginning of the academic year, each discipline will have to post: (1) the syllabus, the lectures and practical activities aims, the examination topics, the bliographic references, how the evaluation will be performed and the grading criteria. (2) During the first lecture, the teaching staff will inform the students about the examination protocol and the specific requirements. (3) The examination can be performed as a written test, oral exam, practical skills evaluation or any other type of knowledge assessment.

The promotion of the first year of studies requires obtaining at least 50 credits from the total of the 60 credits allocated to one year of study. For promotion in a year of higher education it is necessary that the amount of transferable credits from the lower years does not exceed 10 ECTS. The calculation of credit units obtained in an academic year does not include credit units in that year from remaining credits. For transferred credits, a fee is paid according to the Annex "School fees" of the Regulations for teaching and professional activity of students. (art. 40 - Didactic activity regulations). The remaining credits will be promoted within 2 years of their non-promotion, otherwise, the student will be placed in the complementary year.

Presentation of a student at the examination, for a given subject, is admitted only 3 times, during a university year. The curriculum comprises of 4 exam sessions (for linear education: winter session, summer session and two reexamination sessions). For the third presentation on the exam, the student will pay a fee according to "School Fees".

Exams are held only during sessions for linear education. Students are obliged to comply with the exam dates set by the department in agreement with the

representatives of each series. Failure to take the exam on the set dates results in the loss of an opportunity to take the examination.

In the disciplines in which the knowledge verification will be done in the form of a complex examination completed by a single grade, in the written exam each discipline will assign a number of questions proportional to the weight of its activity hours; the practical exam will be unique and will be held at the end of the activity, and the final grade will be calculated by the proportionality ratio between the different disciplines, according to an algorithm accepted and announced in advance.

In order to support the written examinations, the dates of exams will be agreed with the students' representatives, each department being obliged to submit at least two days for a series. If the theoretical examination is taken on the same day for the whole series, the practical examination shall not exceed the duration of 3 successive days.

The re-examination for the change of the current mark shall be carried out with the approval of the Faculty Council, as follows: maximum 6 re-examinations during the schooling year and no more than 2 re-examination per year. The mark obtained at the re-examination shall be final mark. The re-examination is supported by a committee of three teachers. The score obtained is included in the calculation of the average for obtaining the social rights of students. The fee for these exams is set out in the Annex "School Fees". In order to request a re-examination to increase the mark, a student must be an integralist.

The student who tries to pass the exams by fraud will be sanctioned. The sanctions that may be proposed by the faculty management can be found in Chapter XV – Rewards and Sanctions of the Regulation on the organization and conduct of the teaching activity in the licence program.

Grades are not displayed at the disciplines headquarters.

9. REGULATION FOR STUDY EQUIVALATION

Performed in other medical education institutions by students applying for registration in a university year other than Year 1 or Year 6 of studies. The provisions of this Regulation apply both, to foreign students applying for registration and to Romanian students applying for transfer or equivalence and who have completed part of their studies in another Romanian institution. Studies are not equivalent to the year in which the student is enrolled. Studies more than 6 years from the date of their promotion shall not be equivalent.

For the study equivalence, the following conditions are mandatory to fulfill:

- The content of the subjects studied (attested by **the analytical syllabus)** and the duration (attested by the **Curriculum)** corresponds to the program of the equivalent curriculum of UMF Cluj-Napoca in the percentage of at least 70%;
- The amount of credits transferable by the lack of study of some subjects from the Analytical Program of the Faculty of The U.M.F. Cluj-Napoca (difference exams) ***cannot exceed 10 credits*** (without Physical Education and Romanian Language).
- For students who have graduated from EU accredited universities, subjects relating to the year in which they will be registered may also be equivalent with the condition that the difference between the remaining credits and the additionally recognized credits does not exceed 10 credits.
- Students will present an official certificate showing the scoring system applied in the institution where they studied, as well as, its equivalence with the ECTS system.
- Only subjects inwhich the applicant has passed the examinations in the educational institution where he has completed his studies will be taken into account.
- Clinical modules performed, but not followed, and the promotion of the related examination will not be recognized.

For the study equivalence, the applicant shall present the following documents in the original:

- Proof of schooling with the results of the examinations;
- The curriculum;
- The analytical syllabus of each subject for which equivalence is requested;
- The official explanatory note on the scoring system applied in the educational establishment where he studied, as well as the correspondence of this system with the ECTS system;
- Envelope folder;
- A written request stating the subjects for which equivalence is requested;
- Request for equivalence of studies from the Didactic Protectorate.

All documents requesting the equivalence of studies shall be submitted **only once.** Further additional files are not accepted. Only studies completed in medical higher education institutions with the purpose of which is to obtain a dental degree, may be equivalent. The equivalence of studies carried out within the faculties of biology, veterinary medicine, nurses, medical colleges or master's studies, etc. is not accepted.

This Regulation is an Annex to the study contract

Applications for equivalence of studies will be submitted to the Dean's Office by 15th October at the latest, for the current academic year, or, with the

approval of the Senate Office, by the deadline for the enrolment of foreign students in our university, date set by the Senate Office in accordance with the Ministry of Education and Research.

The evaluation of the dossiers for the equivalence of studies shall be carried out by a designated member of the Faculty management and shall be approved by minutes by the Faculty management with the signature of all the members of the Council.

The evaluation of the dossier shall be carried out within a maximum of 15 days from the date of its receipt at the Dean's Office.

The Faculty management has the right to request and take into account the opinion of the Disciplines holders of those subjects for which the duration of the studies or/and the content of the analytical programs does not coincide with those of the faculties to which registration is requested.

Any objections to the decision of the Faculty management shall be lodged within a maximum of 48 hours of the notification of the decision to the applicant. Disputes shall be discussed by the assessor appointed by the Council and the applicant. The decision taken by the Faculty management following the discussion of the appeal shall be final and unassailable.

10. SPECIFIC ACTIVITIES OF THE FACULTY OF DENTAL MEDICINE

10.1. Project: Promotion of oral health by increasing the accessibility of the disadvantaged population to the dental treatment

Project acronym "SANODENTAPRIM"

In this project are enrolled all the teachers and residents from the Faculty of Dental Medicine. It is addressed to the institutionalized persons (old people's homes, children's homes, etc.), geriatric, unemployed people (up to 26 years of age) who do not earn a substantial income. Beneficiaries will be defined in detail and all eligible persons will be nominated by the funder.

The estimated number of beneficiaries of the project is 1200.

10.2. Organization of Dental Students

Acronym "OSS" is a student, non-governmental and apolitical organization of the University of Medicine "Iuliu Hatieganu", Cluj-Napoca. The main goal is to represent students from the Faculty of Dental Medicine and their professional, social and cultural development through the projects and activities they carry out. Among the existing projects of the organization, the following should be mentioned:

- DENTIS
- Dental Care Prophylaxis

- Student Circle of Dentistry
- InterDentis
- Support for First Year
- InfoDent
- Open Day

10.3. Exercise of the profession as a dentist

The Diploma of Dentist, awarded by University of Medicine "Iuliu Hatieganu", Cluj-Napoca, Faculty of Dental Medicine, allows the exercise the profession of dentist as a liberal profession, immediately after graduation accompanied by the membership of the College Dentists of Romania (according to the regulation of Law No. 95/ 2006).

11. DENTAL MEDICINE CURRICULUM

According to Art. 88 of the Regulation of teaching activity for the license program for the academic year 2022-2023:

(1) At the beginning of the academic year, each discipline must display the discipline sheet which must contain the analytical syllabus, the educational objectives of the course and of the practical works, the examination topic, the reference bibliography and the evaluation and grading modalities.
(2) Each teacher is obliged to explicitly mention the evaluation methods, the conduct of the exam, the requirements that students must meet in order to take the evaluation, either during or final in the Discipline Sheet.
(3) The discipline sheet is brought to the knowledge of the student by the head teacher of the discipline within the first course of the semester / module.
(4) The discipline sheet does not change during the year.

(5) The discipline file is submitted by the head teacher to the faculty secretariat in physical format, assumed by signature, annually, in the first 2 weeks from the beginning of the academic year.

Nr. crt.	1st year 2022-2023 COURSE	Hours course	Hours LP	Credits	Semester	Evaluation
1	Anatomy and general embriology	28	28	4	1	E
2	Physiology	28	28	4	1	E
3	Biochemistry	14	21	3	1	E
4	Oral cavity biochemistry	14	21	3	1	E
5	Hystology (including Cytology)	14	28	3	1	E
6	Medical informatics and biostatistics	14	28	3	1	E
7	Medical communication	14	14	2	1	V
8	Hystory of dental medicine	14	-	2	1	V
9	Medical first aid	14	14	2	1	E
10	Optional course – Risks associated with drug consumption	14		2	1	V
11	Behavioral science	14	14	2	1	V
12	Dental morphology	28	56	6	2	E
13	Anatomy and embriology	28	42	4	2	E
14	Physiology	28	28	4	2	E
15	Hystology (including cytology)	28	28	4	2	E
16	Biophysics	14	28	3	2	E
17	Cellular and molecular biology	28	28	3	2	E
18	Romanian language	-	56	2	2	C
19	Summer medical practice	-	160	2	2	C
20	Optional course – Medical bioethics	14	-	2	2	V
21	Physical education*	-	28	2*	2	C

Nr. crt	2nd year 2022-2023 COURSE	Hours course	Hours LP	Credits	Semester	Evaluation
1	Dental materials	28	28	6	1	E
2	Pathology	28	42	5	1	E
3	Physiopathology. Immunology	28	28	5	1	E
4	Microbiology (bacteriology. Virusology. Parasitology)	14	28	3	1	E
5	Morphology of teeth and dental arches	14	28	3	1	E
6	Ethics and integrity in academia	14	-	2	1	V
7	Genetics	14	14	2	1	E

8	Medical psychology	14	14	2	1	V
9	Optional course - Oro-dental health of children and adolescents in the context of general health	14		2	1	E
10	Dental technology	28	56	6	2	E
11	Dental materials	28	42	5	2	E
12	Ergonomics	28	28	4	2	E
13	Periodontology	14	28	3	2	E
14	Allergology and clinical immunology	14	14	2	2	E
15	Romanian language	-	56	2	2	C
16	Medical research methodology	14	28	2	2	E
17	Microbiology (bacteriology. Virusology. Parasitology)	14	14	2	2	E
18	Medical practice	-	160	2	2	C
19	Optional course- Applied physiopathology	14	-	2	2	V
20	Physical education*	-	28	2*	2	C

Nr. crt	**3rd year 2022-2023 COURSE**	**Hours course**	**Hours LP**	**Credits**	**Semester**	**Evaluation**
1	Restorative odontotherapy	28	56	6	1	E
2	Dental technology	28	56	6	1	E
3	Internal medicine	14	28	4	1	E
4	Oro-dental prevention (preventive dentistry)	28	42	4	1	E
5	Anesthesia and sedation in dental medicine	28	28	4	1	E
6	General surgery. Anesthesia and intensive care	14	14	2	1	E
7	Hygiene	14	14	2	1	E
8	Optional course - Challenges of young doctors' adaptation to professional practice	14		2	1	V
9	Prosthetic dentistry	28	56	6	2	E
10	Pharmacology	28	28	4	2	E
11	Endodontics	28	56	5	2	E
12	Oro-dental prevention (preventive dentistry)	28	42	5	2	E
13	Internal medicine	14	28	3	2	E
14	Radiology – medical imaging	14	28	3	2	E
15	Medical practice	-	160	2	2	C
16	Optional course - Minimally invasive techniques in pediatric dentistry.	14	-	2	2	V
17	Romanian language – speciality notions		56*	2*	2	C

Nr. crt	**4th year 2022-2023 COURSE**	**Hours course**	**Hours LP**	**Credits**	**Semester**	**Evaluation**

1	Restorative odontotherapy	28	42	6	1	E
2	Occlusion	28	42	5	1	E
3	Pedodontics	28	42	5	1	E
4	Prosthetic dentistry	14	42	4	1	E
5	Infectious disease. Epidemiology	14	28	3	1	E
6	Radiology – dental imaging	28	28	3	1	E
7	Optional course - Innovative methods for tissue regeneration in dentistry	14		2	1	V
8	CAD/CAM systems	14	14	2	1	E
9	Endododntics	28	56	6	2	E
10	Oral and maxillo-facial surgery	28	42	5	2	E
11	Prosthetic dentistry	14	42	4	2	E
12	Oto-rhino-laringology	28	28	3	2	E
13	Endocrinology	14	14	2	2	E
14	Neurology. Psychiatry	14	14	2	2	E
15	Ophtalmology	14	14	2	2	E
16	Pediatrics	14	28	2	2	E
17	Medical practice	-	160	2	2	C
18	Optional course - Pre-prosthetic paraclinical investigations	14	-	2	2	V

Nr. crt	**5th year 2022-2023 COURSE**	**Hours course**	**Hours LP**	**Credits**	**Semester**	**Evaluation**
1	Oral and maxillo-facial surgery	42	42	6	1	E
2	Periodontology	28	42	5	1	E
3	Oral rehabilitation	28	49	5	1	E
4	Dental office management	21	28	3	1	E
5	Dental implantology	14	28	3	1	E
6	Esthetics in dental medicine	14	14	2	1	E
7	Forensic medicine	14	14	2	1	E
8	Health promotion	14	14	2	1	E
9	Optional course - Laser applications in dentistry	14		2	1	V
10	Medico-surgical emergencies in dental medicine	28	56	5	2	E
11	Orthodontics and dento-facial orthopaedics	28	49	5	2	E
12	Periodontology	28	49	5	2	E
13	Prosthetic dentistry	28	56	5	2	E
14	Restorative odontotherapy	14	42	4	2	E

15	Dermatovenerology	14	14	2	2	E
16	Medical practice	-	160	2	2	C
17	Optional course - Oral appliances for the treatment of sleep apnea and snoring	14	-	2	2	V
18	Licence thesis elaboration *	-	56	2*	2	E

Nr. crt.	**6th year 2022-2023 COURSE**	**Hours course**	**Hours LP**	**Credits**	**Semester**	**Evaluation**
1	Oral and maxillo-facial surgery Medical deontology. Bioethics	28	42	4	1	E
2	Dental implantology	28	42	4	1	E
3	Prosthetic dentistry	42	14	4	1	E
4	Orthodontics and dento-facial orthodontics	28	14	4	1	E
5	Oral rehabilitation	28	14	3	1	E
6	Oral pathology	28	14	3	1	E
7	Community and oral health	28	14	3	1	E
8	Pedodontics	28	14	3	1	E
9	Optional course - Tips and Tricks- Technical Management of the Dental Office	14		2	1	V
10	Oral and maxillo-facal surgery	14	42	4	2	E
11	Professional organization and legislation	28	28	4	2	E
12	Pedodontics - SP		42	3	2	E
13	Public health in dentistry – SP		42	3	2	E
14	Physiotherapy in dentistry	14	28	3	2	E
15	Oral rehabilitation – SP		35	3	2	E
16	Orthodontics and dento-facial orthodontics - SP		35	3	2	E
17	Prosthetic dentistry – SP		56	3	2	E
18	Medical deontology. Bioethics	14	14	2	2	E
19	Optional course How to choose the dental materials for different prosthodontic cases?	14	-	2	2	V
20	Licence thesis elaboration *	-	56	2*	2	E

12. COMPULSORY COURSES

1st year

1. Anatomy and general embriology
2. Physiology
3. Biochemistry
4. Oral cavity biochemistry
5. Hystology (including cytology)
6. Medical informatics and biostatistics
7. Medical communication
8. History of dentistry
9. First aid
10. Behavioral sciences
11. Dental morphology
12. Anatomy and embriology
13. Physiology
14. Hystology (including cytology)
15. Biophysics
16. Cellular and molecular biology
17. Romanian language
18. Summer medical practice
19. Physical education

2nd year

1. Dental materials
2. Pathology
3. Physiopathology. Immunology
4. Microbiology (bacteriology. Virusology. Parasitology)
5. Morphology of teeth and dental arches
6. Ethics and integrity in academia
7. Genetics
8. Medical psychology
9. Dental technology
10. Dental materials
11. Ergonomics
12. Periodontology
13. Allergology and clinical immunology
14. Romanian language
15. Medical research methodology
16. Microbiology (bacteriology. Virusology. Parasitology)
17. Medical practice
18. Physical education

3rd year

1. Restorative odontotherapy
2. Dental technology
3. Internal medicine

4. Oro-dental prevention (preventive dentistry)
5. Anesthesia and sedation in dental medicine
6. General surgery. Anesthesia and intensive care
7. Hygiene
8. Prosthetic dentistry
9. Pharmacology
10. Endodontics
11. Oro-dental prevention (preventive dentistry)
12. Internal medicine
13. Radiology – medical imaging
14. Medical practice
15. Romanian language – speciality notions

4th year

1. Restorative odontotherapy
2. Occlusion
3. Pedodontics
4. Prosthetic dentistry
5. Infectious disease. Epidemiology
6. Radiology – dental imaging
7. Cad/cam systems
8. Endododntics
9. Oral and maxillo-facial surgery
10. Prosthetic dentistry
11. Oto-rhino-laringology
12. Endocrinology
13. Neurology. Psychiatry
14. Ophtalmology
15. Pediatrics
16. Medical practice

5th year

1. Oral and maxillo-facial surgery
2. Periodontology
3. Oral rehabilitation
4. Dental office management
5. Dental implantology
6. Esthetics in dental medicine
7. Forensic medicine
8. Health promotion
9. Medico-surgical emergencies in dental medicine
10. Orthodontics and dento-facial orthopaedics
11. Periodontology
12. Prosthetic dentistry
13. Restorative odontotherapy
14. Dermatovenerology

15. Medical practice

6th year

1. Oral and maxillo-facial surgery
2. Dental implantology
3. Prosthetic dentistry
4. Orthodontics and dento-facial orthodontics
5. Oral rehabilitation
6. Oral pathology
7. Community and oral health
8. Pedodontics
9. Oral and maxillo-facal surgery
10. Professional organization and legislation
11. Physiotherapy in dentistry
12. Medical deontology. Bioethics
13. Pedodontics - SP
14. Public health in dentistry – SP
15. Oral rehabilitation – SP
16. Orthodontics and dento-facial orthodontics - SP
17. Prosthetic dentistry – SP

13. OPTIONAL COURSES

The curriculum includes compulsory and optional subjects. Each academic year is assigned a number of optional courses. Students can choose such a course, which will then become mandatory for study. According to the university program, each optional course is allocated 14 hours / semester and 2 ECTS credits.

Credits for optional subjects can be allocated to any of these subjects, by choosing, attending and promoting it. Once chosen, the optional subject becomes mandatory. The registration for the optional courses and the organization of their activity is done according to the own methodology approved by the council of each faculty.

The student can take, during a university year, several optional courses. The credits obtained in addition constitute additional credits. The additional credits may not replace the credits relating to the compulsory subjects.

13.1. Optional courses for students of the Faculty of Dentistry

Academic year 2022 – 2023

SEM	COURSE	DISCIPLINE

Ist Ist sem	Risks associated with drug consumption	Toxicology (Pharmacology)
Ist IInd sem	Medical bioethics	Oral Health
IInd Ist sem	Oro-dental health of children and adolescents in the context of general health	Pedodontics
IInd IInd sem	Applied Pathophysiology	Fiziopathology
IIIrd Ist sem	Challenges of young doctors' adaptation to professional practice	Odontology, Endodontics and Oral Pathology
IIIrd IInd sem	Minimally invasive techniques in pediatric dentistry.	Pedodontics
IVth Ist sem	Innovative methods for tissue regeneration in dentistry	Oral Rehabilitation
IVth IInd sem	Pre-prosthetic paraclinical investigations	Prosthetic dentistry
Vth Ist sem	Laser applications in dentistry	Maxilo-facial surgery and implantology
Vth IIndsem	Oral appliances for the treatment of sleep apnea and snoring	Oral rehabilitation
VIth Ist sem	Tips and Tricks- Technical Management of the Dental Office	Dental propedeutics
VIth IIndsem	How to choose the dental materials for different prosthodontic cases?	Dental materials, ergonomy

COURSE DESCRIPTION

1ST YEAR

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 Anatomy and Embriology
Discipline	Anatomy and Embriology
Cours title	**ANATOMY AND GENERAL EMBRIOLOGY**
Responsible for lecture	**Lecturer. Dr. Badea Alexandru**
Responsible for practical activity	Teaching Assistant Dr. Budusan Maria Teaching Assistant Dr. Herdean Andrei
The formative category of the	DF

discipline									
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• The course is organized for a whole series of students. • Students will attend classes at the place and on the days set according to the schedule. • The student's behavior must be civilized, adapted to academic life. • Attendance at the course is mandatory, being accepted a maximum of 20% absences from the total course hours. • The practical workshops are organized in groups of students. • The students will present themselves at the workshops in the place and on the days established according to the schedule. • The student's behavior must be civilized, adapted to academic life. • Lack of respect for the teaching material will not be tolerated, whether it is anatomical pieces or a corpse. • Students are required to participate in the ongoing checks, postponement without good reason is not accepted.

Professional competences	• Mastering anatomical terminology. • Acquisition by the student of an adequate medical language. • The acquisition by the student of the theoretical and practical notions of the individual anatomical elements and of the compound structures (systems of organs and apparatuses). • Correct mastery of exploration maneuvers and dissection techniques of normal anatomical structures. • Descriptive and topographic recognition of the anatomical elements of the human body. • Correlation of knowledge of descriptive anatomy with live morphological exploration of the notions of radio-anatomy. • Correlation of the elements of topographic anatomy with some notions of medical semiology.

Transversal competences	• Concern for professional development by training critical thinking skills demonstrated through active participation in the course and laboratory / seminar / project. • Involvement in scientific research activities by participating in the elaboration of papers, studies, specialized articles. • Efficient use of information sources and resources of communication and assisted professional training (Internet portals, specialized software applications, databases, online courses, etc.) both in Romanian and in a language of international circulation. • Recognition of the normal anatomical element and evaluation of its participation in achieving a pathological condition, anatomical support of any non-invasive exploratory act (CT, MRI) or invasive (surgical act).
General objectives	• Knowledge of the elements of descriptive and topographic anatomy of all components of the human body. • Knowledge of regions and spaces of the human body on axial segments (head, neck, trunk) or appendicular (limbs) in the topographic anatomy. • Knowledge of the complex morphology of organ and apparatus systems. • Morphological exploration on the prepared piece (corpse) and of the macroscopic and digital anatomical sections. • Acquiring international anatomical terminology (anatomical nomenclature).
Specific objectives	• Knowledge and understanding of anatomical elements. • Recognition of all anatomical elements. • Knowledge of the relationships between different anatomical elements. • Study of topographic regions and sectional anatomy. • It is proposed that at the end of the course students be able to through. • practical study on the corpse and on various anatomical preparations. • study of imaging anatomy. • understanding and deepening the notions of clinical anatomy. • correlation of theoretical data with those of applied anatomy. • to achieve a solid anatomical training, necessary during the university period, which is indispensable for the future dentist.

LECTURES	
Teaching methods	• **Master class. Interactive presentation of the material according to the analytical program using multimedia means, powerpoint presentations, didactic films, specific software.**

Content	1. The object of anatomy: man. Introduction to the study of anatomy; definition, means and methods of study; terms of orientation; anatomical nomenclature. Peculiarities of bipedalism; proportions of the human body. Age stages and their characteristics; human morphotypes; races.
	2. General information about the musculoskeletal system: bones, joints, muscles.
	3. Topographic regions of the upper limb.
	4. Topographic regions of the lower limb.
	5. Anatomy of the respiratory system.
	6. Anatomy of the cardiovascular system.
	7. Topographic anatomy of the thorax.
	8. Anatomy of the digestive system.
	9. Anatomy of the excretory system.
	10. Topographic anatomy of the abdomen.
	11. Anatomy of the genital system.
	12. Topographic anatomy of the pelvis and perineum.
	13. General embryology - development weeks I-IV.
	14. Sectional anatomy.
PRACTICAL ACTIVITIES	
Teaching methods	• Checking the students' theoretical knowledge about the current work, proving by the student the knowledge of the dissection method, evaluating the way each student works.
Practical activity carried out by students	• Identification of macroscopic anatomical elements on cadaveric parts, macroscopic anatomical preparations, sections, anatomical and imaging plates.
Content	1. Axes, planes, anatomical terms. The vertebral column and it's joints. The thorax and it's joints. Clavicle and scapula. Joints of the scapular belt. Bones of the upper limb and it's joints.
	2. The bony pelvis. The joints of the pelvic girdle. Bones of the lower limb and its joints.
	3. Upper limb topographic regions demonstration. The Brachial plexus
	4. Lower limb topographic regions demonstration. The Lumbar plexus and The Sacral plexus .
	5. Seminar: Osteology, limbs.
	6. The thoracic wall. The intercostal muscles and intercostal neuro - vascular bundle. The internal thoracic vessels. The thymus. The pleurae and the lungs. The pulmonary pedicle. The structure, nerves and blood supply of the lungs.
	7. The pericardium and the heart. External aspect and relations of the heart. The vagus nerves. The large arteries and veins at the base of the heart. The aortic arch. The cardiac plexus. The heart sampling. Preparation of heart vessels. Internal aspect of the heart.
	8. The topography of the mediastinum. The trachea; The esophagus; the thoracic lymph duct. The azygos veins system. The thoracic aorta. The

	thoracic sympathetic system.		
	9. Seminary: The thorax.		
	10. The abdominal organs normal position. The peritoneal cavity topography. The Omental Bursa (the Lesser sac). The liver. The bile ducts. The jejunum. The ileum. The caecum and the appendix. The colon.		
	11. The stomach. The spleen. The duodenum and the pancreas. The kidneys. The ureters. The inferior vena cava. The Aorta.		
	12. Seminary: The abdomen.		
	13. The female pelvis. The pelvian peritoneum. The urinary bladder and the rectum. The uterus. The uterine tubes and the ovaries. The broad ligament. The perineum in females.		
	14. The male pelvis. The ductus deferens. The seminal vesicles. The prostate. The urinary bladder. The rectum. The posterior perineum. The scrotum. The testicles. The epididymis. The spermatic cord. The anterior perineum.		
Bibliography	1. Moore Keith L, Agur Anne M.R.,Arthur F. Dalley, Clinically oriented anatomy, Sixth Edition, ISBN 978-1-60547-652-0, Wolters Kluwer Health, 2010 2. Gray's Anatomy for Students, Fourth Edition, Richard L. Drake ; A. Wayne Vogl; Adam W. M. Mitchell, ISBN 9780323393041, Elsvier , 2019 3. Moore Keith L., Agur Anne M.R., Essential Clinical Anatomy, Williams & Wilkins, 1995, ISBN 0-683-06128-3 4. Mc Minn R.M.H. - Last's Anatomy Regional and Applied, 8-th Edition, 1990; Churchill Livingstone. 5. Sadler T.W., Langman's Medical Embryology, 6-th Edition; Williams & Wilkins, 1992 6. Schumacher G-H, Topographic Anatomy, Veb Georg Thieme Leipzig, 1985 7. Smith Wendel C.P., Williams P.L., Treadgold Sylvia, Basic Human Embriology, Third Edition, The English Language book society and Pitman, 1984, ISBN 0-272-79766-9 8. • Williams P., Warwick R.& Co, Gray's Anatomy 38th Edition, Churchill Livingstone, 1995, ISBN 0-443-04560-7		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters

Qualification	Doctor of Dental Medicine
Department	2 Functional sciences
Discipline	Physiology
Cours title	**PHYSIOLOGY**
Responsible for lecture	**Associate Professor Dr. Teodora Mocan**
Responsible for practical activity	Associate Professor Dr. Teodora Mocan Assist. Dr Moga Adrian
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• In amphitheatre, with video projection . • The students are not allowed to enter the amphitheatre with turned on mobile phones. The discussions among the students that can disturb the educational process are not allowed. The students are not allowed to leave the room to talk at the phone. • Eating, drinking of any king of food and fluids are forbidden. • The students' delays are not tolerated because they disturb the educational process. • In laboratory rooms with, the specific material • The students have to wear white coats. • An individual portfolio must be completed by each student . • The laboratory tests' results must be noted in the students notebook, that will be signed by the teacher of the students group.

Professional competences	• Ability in adequate utilization of the medical terminology • Acquire of the practical experience necessary for utilization of the laboratory instruments, to investigate some fundamental physiological mechanisms, and to test the studied clinical parameters. • Ability to interpret the laboratory tests. • Ability to correctly interpret the results of scientific studies. • Ability to efficiently use the medical sources.

Transversal competences	• Ability to use the studied notions in new conditions. • Ability to make correlations among the studied notions at different disciplines. • Ability to efficiently communicate in a team. • Concern for professional mastery through training of the critical thinking abilities. • Ability to use digital resources for medical data. • Acquire the interest for the own professional development.
General objectives	• Clarification and understanding of the difficult and complex biological mechanisms. • Exploring the various systems (excitable tissue, blood, cardiovascular system, respiration, excretion and digestion). • Developing the spirit of observation and of the critical thinking, skills which are essential for the future doctors.
Specific objectives	• Learning of the medical terminology, acquisition of the needed knowledge for the integration of functions at the molecular, cellular, tissue and systemic level, in order to understand the functioning of the different organs, systems and the interactions between them. • Use of the equipment and of the laboratory instruments in order to learn the physiological mechanisms. • Interpret of the bibliographical documentation.

LECTURES	
Teaching methods	• **Lecture, Systematic Speech, Conversation, Problem solving.**
Content	1. Water and fluid compartments of the body. Ion distribution in the body fluids. Homeostasis. Transport across the plasma membrane: passive, active, vesicular.
	2. The physiology of excitable tissues. The axoplasmic transport. The physiology of the neuron: resting membrane potential, action potential, conductivity. Synapse. Structure. Functioning. Postsynaptic potentials. The characteristics of synaptic transmission.
	3. The neuromuscular junction. The physiology of skeletal muscle: the functional structure of the striated muscular fiber; the excitation-contraction coupling; muscle relaxation. Muscle fatigue.
	4. Smooth muscle physiology: structure (multiunit, single-unit) the excitation-contraction coupling; the contraction and relaxation mechanism. The reflex activity. The vegetative reflex arc. The autonomic nervous system.
	5. Blood: composition; hematocrit; blood volume; mechanisms of blood volume regulation; acido- base balance of the blood. Blood properties. Plasma: composition; plasma proteins.

	6. Erythrocytes: structure, number, variations. Hemoglobin: structure, role, combinations. Iron metabolism. Erythropoiesis.
	7. The properties of erythrocytes. Red blood cell antigens. Blood typing ABO and Rh. Transfusions.
	8. Leukocytes: structure, number, variations; leukocyte formula. The properties of granulocytes. The formation of leukocytes. Immunity. The innate and adaptive immunity. Immunoglobulins.
	9. Platelets: structure, number, variations. Hemostasis. Blood clotting. Factors that inhibit clotting. Dissolution of clots.
	10. The properties of the cardiac muscle. The electrical activity of the heart. The cardiac output. Nervous and humoral regulation of cardiac activity. The baroreceptor reflex.
	11. Blood pressure. The physiology of the microcirculation. Capillary fluid exchange. The regulation of microcirculation.
	12. The physiology of the respiratory system: Lung ventilation; Gas exchange in the lungs; Oxygen and carbon dioxide transport; the regulation of respiration. The physiology of excretion: structure and function of the kidneys; Glomerular filtration. Tubular reabsorption and secretion. Micturition.
	13. The physiology of excretion: structure and function of the kidneys; Glomerular filtration. Tubular reabsorption and secretion. Micturition.
	14. Introduction into the physiology of the digestive tract. Gastric secretion, pancreatic secretion, biliary secretion and intestinal secretion. The regulation of gastric secretion. Motility of the gastrointestinal tract. Intestinal absorption.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive Systematic Speech, Problem Solving, Demo, Individual Practical Activity.
Practical activity carried out by students	• Performing of Laboratory Tests, Data Interpretation, Problem Solving.
Content	1. Hematocrit or packed cell volume. Osmosis. The influence of the osmotic pressure on the erythrocyte volume. RBC osmotic resistance.
	2. Hemoglobin's combinations. Identification of hemoglobin. Total hemoglobin content in the blood. The dosage of the bicarbonate.
	3. Red blood cells count. Reticulocytes count. Erythrocytes parameters.
	4. Erythrocyte sedimentation rate. Blood and plasma density. Electrophoresis of plasma proteins.
	5. Blood typing: ABO, Rh. Transfusions.
	6. White blood cell count. White blood cell differential count.
	7. Platelet count. Bleeding time. Rumple-Leeds compression test.
	8. Coagulation time. Quick time. Howell time.
	9. Neuron physiology (simulations): excitability, conductibility, threshold, summation.
	10. Muscle physiology (simulations): role of the motor end plaque in the muscle fatigue. Muscle contractions.

	11. The electrocardiogrm.
	12. Blood pressure monitoring.
	13. Urine analysis.
	14. Spirometry: lung volumes and capacities.
Bibliography	1. Marieb EN, Hoehn K, Anatomy and physiology, Pearson, 2013. Despopoulos A, Silbernagl S. Color atlas of physiology, Thieme, 2003. 2. Widmaier EP, Raff H, Strang KT, Vander's Human physiology The mechanisms of body function, McGraw-Hill, 2014. 3. Fox I, Human physiology, McGraw-Hill, 2011. 4. Tortora G, Derrikson B, Principles of anatomy and physiology, John Wiley&Sons Inc, 2009. 5. Dee Unglaub Silverthorn, Human physiology: An integrated approach, Pearson, 2013. Guyton AC, Hall JE, Textbook of medical physiology, Elsevier, 2006. 6. Escot-Stump S, Mahan LK, Krause's Food nutrition and therapy, Elsevier, 2007. 7. Mitrea D.R. Human Physiology -Laboratory tests. Sibiu, Techno Media, 2006. ISBN (10) 973-7865-24-3. ISBN (13) 978-973-7865-24-3.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**80%**	**10%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Molecular sciences
Discipline	Medical Biochemistry
Cours title	**BIOCHEMISTRY**
Responsible for lecture	**Lecturer Dr. Nistor Tiberiu**
Responsible for practical activity	Vacancy 25 Assistant
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	1,5	14	21	40	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-

Requisites for lectures and practical activities	Amphiteatre Laboratory

Professional competences	• Basic knowledge necessary for the understanding of the biochemical principles important in dental medicine: aminoacids, proteins, enzymes, water and fat soluble vitamins and their coenzymes, nucleic acids.
Transversal competences	• Correlation of the theoretical knowledge with the practical activity. • Interdisciplinary correlations.
General objectives	• The accumulation of basic knowledge necessary for the understanding of the structure of the macromolecular compounds and biochemical processes in the living organisms.
Specific objectives	• The structure and function of amino acids and proteins important in the human body. • Enzymes as catalysts of metabolic processes in living organisms and their medical implications. • Vitamins and coenzymes: structure, role and deficiency. • Nucleic acids: composition, types, role. • Transmission and expression of genetic information.

LECTURES	
Teaching methods	• **Oral presentation, Interactive conversation, Power-Point presentation**
Content	1. Amino acids: structure, importance.
	2. Structure of proteins: primary, secondary, tertiary and quaternary structure.
	3. Types of proteins: myoglobin, hemoglobin.
	4. Types of proteins: immunoglobulins, collagen.
	5. Enzymes: classification, structure, specificity.
	6. Enzymes: enzyme kinetics, types of enzyme inhibition.
	7. Enzymes: regulation of enzyme activity, isoenzymes.
	8. Vitamins and coenzymes - water soluble vitamins: B1, B2, Niacin, Biotin.
	9. Vitamins and coenzymes - water soluble vitamins: Folic acid, Pantothenic acid, B6, B12, Vitamin C.
	10. Vitamins and coenzymes - fat soluble vitamins: A, D, K, E.
	11. Nucleic acids: composition, structure of DNA and RNA.
	12. DNA Replication.
	13. DNA Transcription.
	14. RNA Translation .
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching, Power-Point presentation.

Practical activity carried out by students	• Determinatin of the concentration of solutions. • Calculation of pH for acids, bases, buffer solutions. • Titration curves. • Determination of serum and urinary parameters and interpretation of the results.		
Content	1. Technical norms of work safety in the biochemistry laboratory.		
	2. Solutions: definition and different ways of expressing the concentration of a solution.		
	3. Acids, bases, buffer solutions: definition, examples, pH calculation, medical importance.		
	4. Acid-base titration: Titration of $CH_3 – COOH$. Titration of the aminoacids and determination of pHi: Titration of glycine.		
	5. Principle of colorimetry. Determination of total serum proteins (Gornall method). Medical importance.		
	6. Principle of enzyme assays. Analysis of serum cholinesterase activity. Medical importance.		
	7. Gamma-glutamyl transferase (γ-GT) determination. Medical importance.		
	8. Glucose determination in blood. Glucose tolerance test. Medical importance.		
	9. Plasma lipids and lipoproteins. Determination of total lipids. Medical importance.		
	10. Determination of cholesterol and triglycerides. Medical importance.		
	11. Determination of bilirubin. Medical importance.		
	12. Normal components in urine. Medical importance.		
	13. Pathological components in urine. Medical importance.		
	14. Revision labs.		
Bibliography	1. Kaplan LA, Pesce AJ. Clinical chemistry: theory, analysis and correlation. St. Louis: The C. V. Mosby Company; 1984. 2. Bishop ML, Duben-Engelkirk JL, Fody EP. Clinical chemistry: principles, procedures, correlations. 2nd ed. Philadelphia: J.B. Lippincott Company; 1992. 3. Pamela C. Champe, Richard A. Harvey, Denise R. Ferrier – Biochemistry, 3rd edition, Lippincott's Illustrated Reviews, 2005. 4. Thomas M. Devlin – Textbook of Biochemistry with Clinical Correlations, sixth edition, 2006. 5. Nistor Tiberiu – Basics in Biochemistry For Dentistry Students. Ed. Casa Cartii de Stiinta, Cluj-Napoca, 2010. 6. Nistor Tiberiu. Biochemistry. Practical Labs in Dental Medicine. Cluj-Napoca: Editura Casa Cartii de Stiinta; 2010.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Molecular sciences
Discipline	Medical Biochemistry
Cours title	**ORAL CAVITY BIOCHEMISTRY**
Responsible for lecture	**Lecturer Dr. Nistor Tiberiu**
Responsible for practical activity	Vacancy 25 Assistant
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	1,5	14	21	40	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	Amphitheater Laboratory

Professional competences	• Basic knowledge necessary for the understanding of the biochemical mechanisms and diseases important for dental medicine: major metabolic pathways of carbohydrates, lipids and amino acids, biochemistry of the saliva, teeth, periodontium, dental plaque, dental caries, periodontal disease. • Interpretation of the most sensitive biochemical parameters present in saliva and gingival fluid, which may be correlated with diseases of the oral cavity and with systemic diseases.
Transversal competences	• Correlation of the theoretical knowledge with the practical activity. Interdisciplinary correlations.
General objectives	• The accumulation of basic knowledge of biochemical modifications in the oral cavity as a component of the whole organism.
Specific objectives	• Important metabolic pathways and deficiency of carbohydrates metabolism. • Important metabolic pathways and deficiency of lipids metabolism. • Important metabolic pathways and deficiency of amino acids metabolism.

	• Saliva: composition, properties and roles. • Biochemistry of the teeth. • Bacteria and dental plaque. • Biochemical aspects of dental caries. • Biochemistry of the periodontal disease.

LECTURES	
Teaching methods	• **Oral presentation, Interactive conversation, Power-Point presentation.**
Content	1. Carbohydrates metabolism and the oral cavity: Structure and importance of carbohydrates, Glycolysis, Gluconeogenesis, Tricarboxylic acid cycle.
	2. Carbohydrates metabolism and the oral cavity: Pentose phosphate pathway, Glucuronic acid pathway, Glycogen metabolism.
	3. Lipids metabolism and the oral cavity: Structure and importance of lipids, Metabolism of fatty acids, Synthesis of triglycerides.
	4. Lipids metabolism and the oral cavity: Metabolism of ketone bodies, Meatabolism of cholesterol, Bile acids, Steroid hormones.
	5. Amino acids metabolism and the oral cavity: General transformations of the amino acids, Urea cycle.
	6. Amino acids metabolism and the oral cavity: Metabolism of phenylalanine and tyrosine, Metabolism of creatine and creatinine, Metabolism of heme.
	7. Oral cavity – a complex ecosystem.
	8. Biochemistry of the saliva: composition, properties and role.
	9. Biochemistry of the teeth: general aspects and chemical composition.
	10. Biochemistry of the periodontium: major chemical constituents and biochemical processes at the periodontium level.
	11. Biochemistry of the dental plaque: dental pellicle, definition and types of dental plaque, structure and composition of dental plaque, metabolism of dental plaque.
	12. Biochemistry of the dental caries: description of the caries processes, etiopathogenesis of dental caries, resistance to caries.
	13. Biochemistry of the periodontal disease: types, etiology and evolution of the periodontal disease.
	14. Oral manifestations of systemic diseases.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching, Power-Point presentation.
Practical activity carried out by students	• Determination of specific salivary parameters and interpretation of the results.
Content	1. Technical norms of work safety in the biochemistry laboratory.
	2. Biochemistry of saliva.
	3. The role of saliva in maintaining a constant pH.

	4. Determination of salivary calcium. Medical importance.		
	5. Determination of salivary inorganic phosphate. Medical importance.		
	6. Salivary urea determination. Medical importance.		
	7. Salivary uric acid determination. Medical importance.		
	8. Salivary amylase determination. Medical importance.		
	9. Determination of salivary phosphatases activity determination. Medical importance.		
	10. Salivary transaminases activity (GOT and GPT) determination. Medical importance.		
	11. Determination of salivary glucose. Correlations between diabetes mellitus and periodontal disease.		
	12. Salivary proteins determination. Medical importance.		
	13. Salivary pathological compounds in systemic diseases.		
	14. Revision labs.		
Bibliography	1. Kaplan LA, Pesce AJ. Clinical chemistry: theory, analysis and correlation. St. Louis: The C. V. Mosby Company; 1984. 2. Bishop ML, Duben-Engelkirk JL, Fody EP. Clinical chemistry: principles, procedures, correlations. 2nd ed. Philadelphia: J.B. Lippincott Company; 1992. 3. Pamela C. Champe, Richard A. Harvey, Denise R. Ferrier – Biochemistry, 3rd edition, Lippincott's Illustrated Reviews, 2005. 4. Thomas M. Devlin – Textbook of Biochemistry with Clinical Correlations, sixth edition, 2006. 5. Nistor Tiberiu – Basics in Biochemistry For Dentistry Students. Ed. Casa Cartii de Stiinta, Cluj-Napoca, 2010. 6. Nistor Tiberiu. Biochemistry. Practical Labs in Dental Medicine. Cluj-Napoca: Editura Casa Cartii de Stiinta; 2010.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 Morphologic sciences
Discipline	Histology
Cours title	**HYSTOLOGY (including CYTOLOGY)**
Responsible for lecture	**Associate Professor Boşca Adina Bianca DMD, PhD**
Responsible for practical activity	Associate Professor Boşca Adina Bianca DMD, PhD Lecturer Constantin Anne Marie MD, PhD

				Assistant Coneac Andrei MD, PhD					
The formative category of the discipline				DF					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	Attendance to lectures is mandatory 70%, equivalent to 10 attendances during the semester. Students are required to turn off their mobile phones and other electronic devices during the lectures, the practical works/labs and the exams. The access with food or beverages in the classroom is forbidden. Damaging the furniture, the microscopes or breaking the histological slides bring the penalty consisting in the payment of damages. Smoking inside the building is forbidden. Attendance to practical works/laboratories is compulsory 100%. Absences due to medical reasons will be excused based upon the certificate signed by the Dean no later than 7 days. Unexcused absences must be paid at the UMF cashier based upon the payment order issued by the Histology Department no later than 7 days. Both excused and unexcused absences must be recovered. Students must negotiate with the professors the make-up of the missed labs. Recovery of absences can be done during the semester (in labs when revision is planned) or in extra labs (organized for this purpose at the end of the semester). Students who have unrecovered absences will not be allowed to sit the final exams. The maximum number of absences (both excused and unexcused but paid, and recovered), is no more than 3 per semester. Absences above 3 (20% of 14 - the total practical works/labs during the semester) cannot be recovered. Therefore, students who have more than 3 absences will not be allowed to sit the final exam. Students will wear medical white laboratory coats, will examine the histological slides under the light microscope

	and will complete their portfolios.

Professional competences	• Ability to properly use the special histology terminology. • Ability to correctly use the light microscope. • Ability to encompass, to render accurate histological diagnosis based on tissue examination. • A fundamental knowledge of the histological structure of the tissues and organs in the human body. • Ability to analyze and interpret the microscopic structure of the human tissues and organs. • Ability to systematically identify and range the criteria for the histological diagnoses. • Ability to render histological differential diagnoses for the tissues and organs.
Transversal competences	• To demonstrate the interest for the professional performance by the acquirement of a critical reasoning. • To prove the ability to use the digital devices for medical research • To achieve communicating abilities.
General objectives	• Students will be able to use their theoretical knowledge in Histology in a clinical context, in order to acquire a proper integrated medical reasoning.
Specific objectives	Students will be able to: • Use a light microscope. • Analyze and interpret a histological section under the light microscope. • Identify and differentiate the histological staining procedures. • Render accurate histological diagnoses for the human tissues and organs. • Render accurate differential diagnoses for the human tissues and organs based on histological diagnoses. • Integrate the histological information into the fundamental and clinical subjects.

LECTURES	
Teaching methods	**Conferences, systematic and interactive presentations, Power Point presentations, demonstrations of virtual histology, problem-based learning.**
Content	1. EPITHELIAL TISSUES. Introduction. Overview. Classification. Histogenesis.
	2. EPITHELIAL TISSUES. Covering epithelia: simple and stratified epithelia. Structure in LM and EM.
	3. EPITHELIAL TISSUES - Glandular epithelia: exocrine and endocrine glands: Structure in LM and EM.
	4. CONNECTIVE TISSUES Part one: General considerations. Cells: fixed and transient cells. Structure in LM and EM. Clinical

	correlations.
	5. CONNECTIVE TISSUES Part two. Ground Substance. Fibers. Interstitial fluid. Structure in LM and EM. Clinical correlations.
	6. CONNECTIVE TISSUES Part three. Classification. Embryonic connective tissues. Proper connective tissues: loose, dense irregular, dense regular, elastic. Structure in LM and EM. Clinical correlations.
	7. CONNECTIVE TISSUES Part four. Specialized connective tissues: reticular tissue, adipose tissues: white and brown. Structure in LM and EM. Clinical correlations.
	8. CONNECTIVE TISSUES Part five. Specialized connective tissues: cartilage: cells, cartilage matrix, types of cartilage: hyaline, elastic, fibrocartilage. Temporo-mandibular joint. Structure in LM and EM. Clinical correlations.
	9. CONNECTIVE TISSUES Part six. Specialized connective tissues: bone tissue: general characteristics, cells, bone matrix. Structure in LM and EM. Clinical correlations.
	10. CONNECTIVE TISSUES Part seven. Types of adult bone: spongy bone, compact bone, ossification. Structure in LM and EM. Clinical correlations.
	11. MUSCLE TISSUES. Part one. Overview. Classification. Skeletal muscle. Structure in LM and EM. Clinical correlations.
	12. MUSCLE TISSUES. Part two. Smooth muscle. Structure in LM and EM. Clinical correlations.
	13. NERVOUS TISSUE. Part one. Neurons and glial cells. Structure in LM and EM. Clinical correlations.
	14. NERVOUS TISSUE. Part two. Nerve fibers. Nerve as an organ. Structure in LM and EM. Clinical correlations.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic and interactive presentations, demonstrations, exercises, case reports, demonstrations of virtual histology.
Practical activity carried out by students	• Examination of the histological preparations, interpretation of histological images, establishing the histological diagnosis, discussing the aspects of differential diagnosis, acquiring the knowledge and the practical histological skills.
Content	**1. Histological section**.
	2. **Epithelial tissues I**. Covering epithelial tissues. Simple epithelia: simple squamous (mesothelium, endothelium), cuboidal and columnar. H&E stain and special staining.
	3. **Epithelial tissues II**. Covering epithelial tissues. Stratified epithelia: keratinized/non-keratinized stratified squamous, pseudostratified ciliated columnar, transitional epithelium. H&E stain and special staining.
	4. **Epithelial tissues III.** Glandular epithelia Exocrine glands: simple alveolar gland, compound tubulo-alveolar gland: serous acinus, mucous acinus, mixed acinus. Endocrine glands: cord type gland – the adrenal gland; follicle type gland – the thyroid gland. H&E stain and special

	staining.
	5. **Connective tissues I**: mucous connective tissue, loose connective tissue dense irregular, dense regular collagenous - tendon. H&E stain and special staining.
	6. **Connective tissues II**: Aponeurosis, fibrolamellar tissue. H&E stain and special staining. Revision.
	7. **Connective tissues III**: Dense regular elastic CT – media of the aorta, nuchal ligament. Special staining.
	8. **Connective tissues IV**: Specialized connective tissues: reticular CT – medulla of the lymph node, adipose: white and brown adipose tissue adipose. H&E stain and special staining.
	9. **Connective tissues V**: Specialized connective tissues: cartilage: hyaline, elastic, fibrocartilage. H&E stain and special staining.
	10. **Connective tissues VI**: Specialized connective tissues: compact bone, spongy bone, endochondral ossification. H&E stain and special staining.
	11. **Muscle tissues I**: Skeletal striated muscle tissue, muscle as an organ. H&E stain and special staining.
	12. **Muscle tissues II**: Smooth muscle: muscularis externa of the small intestine, pili arrector muscle, media of blood vessels. H&E stain and special staining.
	13. **Nervous tissue**: neurofibrils, Nissl bodies, myelinated nerve fibers. Nerve as an organ. H&E stain and special staining.
	14. **Practical exam.**
Bibliography	Mandatory: 1. **General Histology**: **Tissues**. Maria Crisan, Carmen Mihaela Mihu, Carmen Melincovici, Bianca Bosca, Anne Marie Constantin, Andrei Coneac, Ioana Moldovan. Editura Medicala Universitara "Iuliu Hatieganu", Cluj-Napoca, 2013 ISBN 978-973-693-554-1. 2. General Histology. Evaluation exercises. Editors: Constantin Anne-Marie, Boşca Adina Bianca. Authors: Constantin Anne-Marie, Boşca Adina Bianca, Mihu Carmen, Crişan Maria, Şuşman Sergiu, Şovrea Alina, Mărginean Mariana, Melincovici Carmen, Jianu Mihaela, Moldovan Ioana, Coneac Andrei. Contributors: Lavinia Mocan Rada Sufleţel Editura Medicală Universitaă "Iuliu Haţieganu" Cluj-Napoca 2018. Optional 3. Mescher A.L. Junqueira's Basic Histology. Text and Atlas, 12th edition. Lange Medical Books;Mc. Graw-Hill Medical Publishing Division; 2010. 4. Pawlina W. Histology a Text and Atlas, 7th edition, Lipincott Williams & Wilkins. 2016. 5. Kumar G.S. Orban's Oral Histology and Embryology, 13th Edition, 2011. 6. Hand A.R., Frank M.E. Fundamentals of Oral Histology and

	Physiology, Wiley Blackwell, 2014. 7. Berkovitz BKB, HollandGR, Moxham BJ. Oral Anatomy, Histology and Embryology 5th Edition Elsevier, 2017. 8. Nanci A (editor).Ten Cate's Oral Histology Development, Structure, and Function.9th Edition. Elsevier, 2017.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**30%**	**10%**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				12 Medical education					
Discipline				Medical informatics and biostatistics					
Cours title				**MEDICAL INFORMATICS AND BIOSTATISTICS**					
Responsible for lecture				**Assoc. Prof. Dr. Cosmina Ioana Bondor**					
Responsible for practical activity				Assoc. Prof. Dr. Cosmina Ioana Bondor Lecturer. Dr. Tudor Călinici					
The formative category of the discipline				DC					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Using PC: internet browsing and editing text-based documents.
Requisites for lectures and practical activities	• Presence: the provisions of the regulations for the teaching activity of the Faculty will be strictly observed. • Students will not attend classes / practical work with mobile phones open. Also, telephone calls will not be tolerated. during the course or practical activities, nor students leaving the classroom to retrieve personal phone calls. • It is prohibited consumption of foods and beverages during the course / practical activities. • No delay for the classroom will be tolerated during the course and practical activities as it proves disruptive to the educational process.

	• Regarding attendance at internships, the provisions of the Faculty's teaching activity regulations will be strictly observed. • Each student must complete their individual portfolio in accordance with the list of compulsory practical work.

Professional competences	• To know the most common applications of medical informatics and highlight their current impact on health care and medical research. • To record medical data using computer. • To perform descriptive statistics on medical data using computers. • To perform inference statistics on medical data using computers.
Transversal competences	• To use computers for communication with patients, colleagues and administrative staff. • To use computers for making specific medical presentations: presentation of clinical cases, presenting research results, etc. • To use computers for research and continuing medical education.
General objectives	• The aim of the course is to help students to gain basic information about information technologies with applications in dentistry and medicine (birotics, databases, working in networks, storing data, searching information) as well as basic methods of statistics. In addition, students will learn about current technologies and methods in computer science and biostatistics and their impacts on health care practice and research.
Specific objectives	At the end of the course, students will be able to: • Search medical information in databases such as PubMed, Cohrane etc. • Do paper sheets specific medical field by using the Microsoft Word. • To identify the correct type of variables involved in the process of collecting health data. • Collecting medical data using Microsoft Excel application. • Identify appropriate descriptive measures to present medical data based on the variables type, and present data using Microsoft Excel and Epi Info. • Identify in a clinical scenario events and establish their correct theoretical probability. • To accurately estimate population parameters different from a sample. • Correctly identify the inferential statistical methods and apply them using Microsoft Excel and Epi Info. • To correctly interpret the results of statistical analyzes and apply them in clinical decisions.

	• To present results using Microsoft Office.

LECTURES	
Teaching methods	• **Academic and interactive conferences.** • **Exemplifications in the medical field of statistical methods.** • **Demonstrations with statistical software / computer programs.**
Content	1. Introduction to Medical Informatics. Objectives, Applications, Requirements, Regulations. Applications of Medical Informatics.
	2. Introduction to statistics. Statistical population, Sample, Variable Data representation methods (tables and graphs).
	3. Descriptive statistics (measures). The calculation and interpretation of descriptive statistics in the case of a qualitative variable.
	4. Descriptive statistics (measures). The calculation and interpretation of descriptive statistics in the case of a quantitative variable.
	5. Probability and medical applications of probability theory. Random experiment, Fundamental space of events, Definitions of probabilities, Conditional probabilities, Independence of two events, Association indicators (relative risk and odds ratio). Diagnostic performance indicators.
	6. Variables aléatoires. Les plus importantes distributions des probabilités.
	7. Sampling methods; Sample distribution. Point estimate and confidence interval.
	8. Tests of statistical hypotheses. The steps of a statistical test. Hypothesis tests on population means, and analysis of variance: Student's t tests, Fisher test, ANOVA.
	9. Frequency comparison tests: Chi-square test, Fisher's exact test, McNemar test.
	10. Correlations and regressions. Scatter plot. The sum of the products deviation. Covariance. Correlation coefficients (Pearson, Spearman). The coefficient of determination. Statistical tests for the significance of the coefficients of the Pearson and Spearman correlations. Linear regression analysis.
	11. Knowledge management & Bibliographic databases (Internet - What do we read? Where? Medical scientific journals, Pubmed).
	12. How to communicate medical knowledge? (Make scientific presentations). Security of medical data.
	13. Databases (Google drive, Microsoft Access, Computer applications in dentistry).
	14. Synthesis.
PRACTICAL ACTIVITIES	
Teaching methods	• Computer aided solving, • Problem solving, • Explanations in the practical workroom, dialogue, together with individual assistance.

Practical activity carried out by students	• Problem solving using software. • Each student fills in a portfolio of practical work solved on the computer.		
Content	1. Introduction. Protection during the practical activity in the laborator. Rules. Good practices for using the computer network.		
	2. Collection of medical data. Using predefined functions in Excel and formulas to define new variables.		
	3. Charts in Excel. Presentation of medical data using graphics.		
	4. Description of quantitative and qualitative ordinal data by descriptive measures (calculation of descriptive statistics in Excel).		
	5. Realization of frequency tables / contingency tables using advanced analysis tools.		
	6. Medical applications of probability theory. Analysis of the contingency table: calculation of medical association indicators, calculation of diagnostic performance indicators.		
	7. Statistical inference using the confidence interval.		
	8. Carrying out hypothesis tests on population means, hypothesis tests on population variances using advanced Excel analysis tools.		
	9. Carrying out tests related to qualitative variables: the chi-square test. Correlation and linear regression analysis using advanced Excel analysis tools.		
	10. Using the Medline via the Pubmed interface to search for medical information.		
	11. Creation of a medical database in Microsoft Access Creation of online forms with GOOGLE FORMS.		
	12. Individual project (with a theme concerning databases or small statistical analysis based on the testing of certain medical objectives).		
	13. Summary of knowledge acquired during the semester. Revision for the practical exam.		
	14. Practical exam.		
Bibliography	1. Winter A, Haux R, Ammenwerth E, Brigl B, Hellrung N, Jahn F. Health Information System, Architectures and Strategies. 2nd ed. London: Springer; 2011. 2. Kim JS, Dailey R. Biostatistics for oral healthcare. Ames, Iowa: Blackwell Munksgaard; 2008. Course presentations / practicals: 1.Course presentations for students of the dental medicine faculty (RO / EN / FR) [online] 2002-2021. Available from URL: 2. Practical work in Medical Informatics and Biostatistics - for students of the Faculty of Dental Medicine (RO / EN / FR) [online] 2002-2020.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**30%**	**is quantified in the calculation of the mark for the written and practical exam**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	12 Medical education
Discipline	Medical skills – Human sciences
Cours title	**MEDICAL COMMUNICATION**
Responsible for lecture	**Associate Professor Dr. Codruța Alina Popescu CF13**
Responsible for practical activity	Asist 7 Assisting Professor Dr. Simona Călinici Vacant Asist Asist 8 Assisting Professor Drd. Tegzeșiu Ana Maria
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	1	14	14	22	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Abilities to speak and write in English.
Requisites for lectures and practical activities	• Room with video projection system. • Course: power-point presentation, offered to students. • Attendance: the provisions of the didactic activity regulations of the Faculty will be observed exactly; Unjustified delay will not be tolerated for students in the course as it proves to be disruptive to the educational process. • Respecting the epidemiological safety measures. • Students will not attend classes with their mobile phones open. Also, telephone conversations during the course will not be tolerated, nor will students leave the classroom in order to take personal phone calls. • Consumption of food and beverages during the course / practical work is not allowed. • Regarding the attendance at the course and at the internships, the provisions of the didactic activity regulation of the Faculty will be observed exactly. • Respecting the epidemiological safety measures.

	• Students will complete in the practical skills booklet edited by the faculty the required information. • Each student must complete his portfolio and the book of practical activities individually in accordance with the list of mandatory clinical cases. • Students' attire must be decent and respect the environment of activities (classrooms and practical work). • Course: power-point presentation, offered to students; dialogue - known / new notions, basis of understanding; notions / pathologies connections. • Attendance: the provisions of the didactic activity regulations of the Faculty will be observed exactly; Unjustified delay will not be tolerated for students in the course as it proves to be disruptive to the educational process. • Students will not attend classes with their mobile phones open. Also, telephone conversations during the course will not be tolerated, nor will students leave the classroom in order to take personal phone calls. • Consumption of food and beverages during the course / practical work is not allowed.

Professional competences	• To know and reproduce the basic theoretical notions presented in the course. • To know the communication tools used to identify the patient's symptoms. • To be able to establish a relationship with the patient. • To gather information from the patient that includes his perspective on the disease. • Be able to start the consultation, summarize and conclude the consultation. • To understand that communication strategies must be adapted to the patient's age (child, adult, elderly person) or to the impairments that the patient presents (hearing, visual, intellectual disability). • To be able to discuss sensitive or stigmatizing topics for the patient (alcohol, drugs, sexual behavior). • To be able to carry out consultations in emotionally charged situations (angry patient, bad news communication). • To identify specific signs of anxiety related to dental procedures. • To choose the appropriate way of communication during dental procedures.
Transversal competences	• To apply critical thinking skills in new and complex situations. • To know and reproduce the basic notions presented in the course; known / new notions, basis of understanding; notions /

	pathologies connections. • Work in a team. • To show interest for professional training, consulting bibliographic sources. • To demonstrate concern for professional development, by training critical thinking skills. • To demonstrate the ability to use digital media for medical information and communication. • Show interest in engaging in research activities, such as the development of scientific articles. • To have the ability to communicate effectively with the patient and medical staff. • To prove ability and concern for collegial professional communication; to show concern for teamwork, in order to fulfill a common project.
General objectives	• At the end of the course, students will acquire the necessary skills for effective communication with patients and their relatives and will be able to put into practice the theoretical and applied notions from the materials presented in the course.
Specific objectives	• At the end of the course the student is able to: • Describe the elements of communication. • Describes how non-verbal communication is used in medical and dental practice. • Define and demonstrate empathy. • Identify anxiety related to dental procedures. • Use open and closed questions correctly in your medical or dental consultation. • Gather relevant information during the medical or dental consultation. • Provides information at the patient's level of understanding. • Understands unproductive models of communication in medical practice (use of medical jargon, infantilization in communication with the elderly). • Recognize the emotional impact of wearing a prosthesis. • Describe and practice the skills needed to handle difficult conversations.

LECTURES	
Teaching methods	• **Systematic lecture / Oral presentations with PowerPoint support exemplification by short presentations of clinical cases, questioning, problem solving**
Content	1. The communication process.
	2. Nonverbal communication.
	3. Verbal communication.
	4. Clinical interview (medical consultation).

	5. Dental interview (dental consultation).
	6. Communication during dental procedures.
	7. Management of dentally anxious patient.
	8. General principles for complaint management and problem resolutions, angry patient.
	9. Bad news.
	10. Communication with children.
	11. Communication with elderly patients.
	12. Communication with people with disabilities.
	13. Stigma management.
	14. Public communication / Advertising and promotion / Online reputation.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic presentation, conversation, problem solving, demonstration, case presentation, exercises, role-playing games.
Practical activity carried out by students	• Theoretical individual study for the preparation of clinical cases, making oral presentations, Role-playing games during practical work, Analysis of video materials.
Content	1. Presentation of students.
	2. Use of simple words.
	3. Communicating the bad news - role play.
	4. Communicating the bad news video part 1.
	5. Communicating the bad news video part 2.
	6. Angry patients -role play.
	7. Patient chart.
	8. Clinical interview: Role play cases medicine.
	9. Clinical interview: Role play cases medicine.
	10. Clinical interview: Role play cases dentistry.
	11. Anxiety related to dental procedures.
	12. Public communication.
	13. Public communication.
	14. Receiving and providing feedback.
Bibliography	1. Popescu C A, Armean SM, Curs de comunicare medicală pentru studenţii de la medicină generală , Cluj-Napoca : Editura Medicală Universitară "Iuliu Haţieganu", 2019. 2. Young, Lance Brendan; O'Toole, Cynthia Rozek; Wolf, Bianca. Communication Skills for Dental Health Care Providers. Quintessence Publishing Co, Inc. Kindle Edition, 2015. 3. Lloyd, M, Bor, R, Noble, L. Clinical communication skills in medicine, Elsevier, 2019. 4. Fields James Pre-Clinical Dental Skills at glance Willey Blackwell, 2016. 5. Travis M. Nelson , Jessica R. Webb Dental Care for Children with Special Needs A Clinical Guide, Springer, 2019. 6. G.G.Kent , A.S. Blinkhorn , The Psychology of Dental Care,

	Butterworth-Heinemann, 1991. 7. Cashman, S; Greene, J, Hearfield, H. (2011-11-20). History Taking: Key Role Play for OSCEs, Doctors Academy Publications. Kindle Edition. 8. L.G. Öst, E. Skaret Cognitive behavioural therapy for dental phobia and anxiety, Wiley Blackwell Publications, John Wiley & Sons, 2013.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	**25%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	12 Medical education
Discipline	Medical skills – Human sciences
Cours title	**HISTORY OF DENTISTRY**
Responsible for lecture	**Prof. Dr. Cristian Bârsu**
Responsible for practical activity	-
The formative category of the discipline	DR
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic knowledge of general history. • Correct understanding and proper oral and written expression in English.
Requisites for lectures and practical activities	• Students should not have cell phones open during the courses. Also, telephone calls will not be tolerated during the course, no leaving the classroom by students to retrieve personal phone calls. • The consumption of food and beverages during the lectures is not permitted. • Students coming late to the course will not have the possibility to attend the course, because it disturbs the educational process.

Professional competences	• At the end of the courses, students will have the ability to use properly and in context the specialized terminology. • At the end of the courses, students will have the ability to explain and interpret the evolution of dentistry in an interdisciplinary approach with the other fundamental biomedical and specialized domains: anatomy, physiology, histology, pharmacology, surgery etc. • At the end of the courses, students will be able to identify some adverse consequences derived from the application of erroneous or superficial solutions in the practice of medicine.
Transversal competences	• To use the medico-historical concepts in new contexts. • To capitalize their potential to the optimum and creative scientific activities. • To form the ability to identify some present problems from different fields of dentistry. • To demonstrate concerns to identify solutions and arguments in favor of the proposed opinions. • To justify the most adequate decisions in some particular situations. • To demonstrate ability to use digital means and historical documents for their information.
General objectives	• To know the most important achievements in the history of dental medicine and the personalities that marked its evolution. • To know the basic terminology of the History of Medicine, especially of dental medicine. • To obtain the correct understanding of the correlations between dental medicine and different sciences and arts.
Specific objectives	• To create the notional basis needed to understand the different aspects of the current stage of dentistry, based on its evolution of the past centuries. • To get the possibility for having the overall assessment of the evolution of dentistry in the following decades.

LECTURES	
Teaching methods	• **Course, systematic presentation, conversation.** • **Oral presentation, associated with PowerPoint presentation.**
Content	1. The educational objectives of the history of medicine. Links of dentistry with sciences and arts.
	2. Romanian medicine – European medicine. Particularities of documentation in the history of dental medicine.
	3. Folk medicine.
	4. Medicine in primitive commune. First empirical attempts to treat dental diseases.
	5. Selected medical and dental practices: Ancient Egypt and Mesopotamia.
	6. Medicine and dentistry in ancient Greece. Greek-Roman medicine. Celsus's buco-maxillo-facial surgical techniques.

	7. Byzantine medicine. Medicine in Western Europe and in Arab countries during Middle Ages. Medieval dental instruments.		
	8. Medicine during the Renaissance. The guilds of barber surgeons. Dentistry in medieval surgery. Ambroise Paré and his progress in conservative and surgical dentistry.		
	9. Dentistry in the 18th century. Pierre Fauchard and the training of modern dentistry. Dental schools in France, Germany and England in the 18th century.		
	10. The foundation of dental prostheses and of dental anesthesia in the 19th century.		
	11. The progress of dentistry in the first half of the 20th century.		
	12. The beginnings of Romanian medical literature. The first Romanian dentists.		
	13. The first important Romanian dentists. The Romanian dental school. Gheorghe Bilaşcu and his role in the creation of the first department of dentistry in Romania.		
	14. The basic landmarks of the Cluj Medical School.		
Bibliography	1. Cristian Barsu. History of Medicine between tradition and modernity, Clujul Medical, 2017, vol. 90(2): 243-245. 2. Barnett R, Kneebone R. L. Crucial Interventions : An Illustrated Treatise on the Principles & Practice of Nineteenth-Century Surgery. Thames & Huston Ltd. [Publ.], London, 2015. 3. Becker J. Marshall, Turfa J. MacIntosh. The Etruscans and the History of Dentistry The Golden Smile through the Ages, Routledge Publ, 2020. 4. Brkić Z, Pavlić V. Periodontology – the historical outline from ancient times until the 20th century, https://pdfs.semanticscholar.org/b033/e1024bb35814e1ed0c085a0e96353d876b38.pdf. 5. Morris T. The Mystery of the Exploding Teeth and Other Curiosities from the History of Medicine, Bantam Press, London, 2019. 6. Taylor J. A. History of Dentistry: A Practical Treatise for the Use of Students and Practitioners, Nabu Press, Charleston, 2013.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**80%**	**-**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters

Qualification	Doctor of Dental Medicine
Department	7 Surgery
Discipline	Anesthesia and Intensive Care Unit
Cours title	**FIRST AID**
Responsible for lecture	**Lecturer Dr. Claudiu Zdrehuş**
Responsible for practical activity	Lecturer Dr. Claudiu Zdrehuş Assistant Dr. Alexandru Alexa
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Biology, Anatomy and physiology • Knowledges of human biology, anatomy and physiology
Requisites	-

Professional competences	• First Aid and medical assistance in emergency medicine.
Transversal competences	• Knowledge's and practical skills which are necessary for the management of emergencies.
General objectives	• Introducing the concept of emergency medicine and medical assistance of emergencies.
Specific objectives	• Introducing theoretical knowledge's and practical skills which are necessary for the management of emergencies.

LECTURES	
Teaching methods	• **Oral presentation power point, video presentation.**
Content	1. Protection measures in case of emergencies. Call for help and inform about the possible danger.
	2. First aid for a patient who is unconscious but is breathing spontaneously. Comatose patient.
	3. Cardio-pulmonary resuscitation (BLS) and defibrilation.
	4. Cardio-pulmonary resuscitation (CPR) in children.
	5. Paediatric foreign body airway obstruction.
	6. First aid in special situations. Bleeding, Shock, Heat stroke, Seizures (convulsions), Open wounds.
	7. First aid in the case of burned patient.
	8. First aid in the case of hypothermia.
	9. First aid in case of aspiration and drowning.

	10. Hanging Injuries and Strangulation.
	11. First aid in the case of animal bites. First aid in case of insect bites and stings.
	12. First aid in case of trauma patient.
	13. First aid in a road traffic accident.
	14. First aid in the case of overdose and poisoning.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical lessons, virtual simulations, case discussions, practice on manikines.
Practical activity carried out by students	• Extension of the head, Esmach maneuver, Saffar maneuver, use of naso and oropharyngean airway on manikin, Heimlich maneuver. • Mouth to mouth, mouth to nose, AMBU bag and mask ventilation on manikin. • External cardiac massage on manikin. • Rautek maneuver, use of a collar for imobilisation of the cervical spine • Positioning the comatose patient, safety position. • Peripheral venous access, IM, SC injections and establishing an infusion set. • Recapitulation of practical techniques and skills, team work scenario.
Content	1. Clearing and maintaining the airway. **Airway Management:** clearing of the upper airways, head extension, anterior subluxation of the mandible, triple Safar manouver, Oro and nasopharyngean tubes, Heimlich manouver.
	2. Clearing and maintaining the airway. **Airway Management:** clearing of the upper airways, head extension, anterior subluxation of the mandible, triple Safar manouver, Oro and nasopharyngean tubes, Heimlich manouver.
	3. **Ventilation (Mouth to mouth, mouth to nose, AMBU bag and mask ventilation),** indications, technique, complications
	4. **Ventilation (Mouth to mouth, mouth to nose, AMBU bag and mask ventilation),** indications, technique, complications.
	5. External cardiac massage parameters, technique, complications.
	6. External cardiac massage parameters, technique, complications.
	7. **Rautek manouver (first aid for road traffic accident) immobilisation of the cervical spine:** indications, cautions, technique, material.
	8. **Rautek manouver (first aid for road traffic accident) immobilisation of the cervical spine:** indications, cautions, technique, material.
	9. **Positioning the comatose patient :** waiting and transport position, indications and technique
	10. **Positioning the comatose patient :** waiting and transport position,

	indications and technique.
	11. **Peripheral venous access and establishing an infusion set:** indications, material, technique, complications. **Intramuscular and subcutaneous injections.**
	12.**Peripheral venous access and establishing an infusion set:** indications, material, technique, complications. **Intramuscular and subcutaneous injections.**
	13. **Recapitulation. Team work for CPR scenario.**
	14. **Recapitulation. Team work for CPR scenario.**
Bibliography	1. Nolan J. European Resuscitation Council Guidelines for Resuscitation 2021. 2. Irwin RS. Rippe J M Manual of intensive care medicine, 5th Edition, Lippincott Williams & Wilkins, 2020. 3. www.emedicine.com/emerg/index.shtml. 4. E-support of lectures.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**50%**	**-**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	MaxilloFacial Surgery and Implantology
Cours title	**BEHAVIORAL SCIENCES**
Responsible for lecture	**Lecturer Dr. Armencea Gabriel**
Responsible for practical activity	**Vacancy position Assist. Prof. pos. 39**
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	1	14	14	22	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Lectures will be held in a projection system – equipped amphitheater.

	• If required: the educational platform of the university.

Professional competences	• The ability to utilize specialized terminology appropriately and in context. • Gaining cognitive abilities in the field of behavioral sciences. • Further understanding of health psychology. • Gaining knowledge about the principles of medical ethics and deontology as well as medical responsibility, • Obtaining knowledge that will serve as basis for comprehensive doctor-patient relationships, and for social and professional integration as a future doctor.
Transversal competences	• Utilizing the assimilated notions in new contexts. • Applying theoretical notions in practical activities. • Establishing interdisciplinary correlations within the studied fields. • Obtaining the ability to efficiently communicate with the patient. • Expanding their pursuit of professional improvement by training their analytical and sythetical thinking. • Demonstrating their involvement in research activities, for instance scientific research.
General objectives	• The course offers Ist year Dental Medicine students the chance to assimilate knowledge necessary for social and professional integration as future doctors; acquiring cognitive abilities in the field of behavioral sciences and further understanding of health psychology, studying ethical and deontological principles as well as medical responsibility and obtaining knowledge that will serve as basis for comprehensive doctor-patient relationships. • The seminars have the purpose of acquiring and evaluating the necessary knowledge for social and professional integration as a future doctor; obtaining cognitive abilities in the field of behavioral sciences; further understanding of the concepts of health psychology, studying ethical and deontological principles as well as issues of medical responsibility and obtaining knowledge which will serve as basis for comprehensive future doctor-patient relationships.
Specific objectives	• Obtaining the necessary knowledge for social and professional integration as a future doctor. • Acquiring cognitive abilities in the field of behavioral sciences. • Further understanding of the concepts of health psychology. • Studying ethical and deontological principles as well as medical responsibility and obtaining knowledge that will serve as basis for comprehensive doctor-patient relationships. • Exercising one's synthesising and bibliographic documentation ability.

LECTURES

Teaching methods	• **Lecture, systematic, interactive presentation. Oral presentations, Power-Point presentations.**
Content	1. Introduction to behavioral sciences – the importance and purpose of behavioral sciences in the formation of the doctor and their social and professional integration.
	2. Health psychology. The social perception of the medical profession.
	3. Ethics, morals and medical deontology. Medical duty.
	4. Diagnostic and therapeutic risks. The principles of the therapeutic relationship.
	5. Medical responsibility. Interpersonal communication in medicine.
	6. Psychological types of healthcare practitioners. Psychological profiles of patients. Psychosomatic medicine.
	7. Ethical principles in human research. Ethical principles in the application of genetic discoveries. Assisted human reproduction.
	8. Stress in the spirit of behavioral sciences.
	9. Social behavior. Alimentation behavior. Sexual behavior.
	10. The doctor and the quality of life.
	11. Team work: doctor – assistant – psychologist – psychiatrist – priest – social worker – patient. Organ transplant ethics.
	12. Assistance in chronic and terminal illnesses. Medicine and religion
	13. Medical bioethics and Christian morality. The ethics of preventive medicine and health promotion.
	14. Preventive medicine and health promotion programs. Continual medical learning.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-Point presentations, interactive teaching.
Practical activity carried out by students	• Scheduled interactive learning.
Content	1. Introduction to behavioral sciences. Importance and purpose in the formation of the doctor and their socio-professional insertion.
	2. Health psychology. The social perception of the medical profession.
	3. Ethics, morality and medical deontology. The medical duty.
	4. Diagnostic and therapeutic risks. The principles of the therapeutic relationship.
	5. Medical responsibility. Interpersonal communication in medicine.
	6. Psychological types of healthcare practitioners. Psychological profiles of patients. Psychosomatic medicine.
	7. Ethical principles in human research. Ethical principles in the application of genetic discoveries. Assisted human reproduction.
	8. Stress in the spirit of behavioral sciences.
	9. Social behavior. Alimentation behavior. Sexual behavior.
	10. The doctor and the quality of life.
	11. Team work: doctor – assistant – psychologist – psychiatrist – priest – social worker – patient. Organ transplant ethics.

	12. Assistance in chronic and terminal illnesses. Medicine and religion.
	13. Medical bioethics and Christian morality. The ethics of preventive medicine and health promotion.
	14. Preventive medicine and health promotion programs. Continual medical education.
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Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	-	-	**100%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Dental Propaedeutics and Esthetics
Cours title	**DENTAL MORPHOLOGY**
Responsible for lecture	**Prof.Dr.Diana Dudea**
Responsible for practical	Sef Lucr.dr.Botos Alexandra

activity				Sef lucr.dr. Alexandru Grecu Asist dr. Clichici Andra Asist dr. Laura Zaharia					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	2	4	28	56	66	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Head and Neck Anatomy and Phisiology.
Requisites for lectures and practical activities	• Attendance 70%. • Amphitheater with projection system. • Compulsory attendance of 100%. • Protective medical outfit. • Required items at the beginning of the semester. • Completion by the student of the drawing portfolio and practical modeling activities, according to the curricula.

Professional competences	• Knowledge of morphology notions of permanent human teeth and structure of odonto-periodontal unit. • Knowledge of the morphology of the temporary and permanent dental arcades, appreciated according to the developmental periods. • Getting the notions of normal dental occlusion, both at the temporary and permanent arches. • Acquiring general information about mandibular-maxillary reference positions: centric relationship, rest position, maximum intercuspation. • Development of interdisciplinary synthesis capacity of the notions of anatomy, physiology, histology in order to know and understand the main functions of the dento-maxillary system: mastication, swallowing, phonation, physiognomic function. • Improving the correlation, through modeling, of the theoretical knowledge of morphology of teeth and dental arches. • Acquiring the necessary practical experience for the use of specialized instruments for the execution of dental morphology modeling steps using different materials as a substrate.
Transversal competences	• The ability to use the terminology appropriately and in the context. • Applying the theoretical notions in the practical activity. • Establishing interdisciplinary correlations within the studied domains.

General objectives	• Providing information on the morphology and normal functionality of teeth, dental arches, oral cavity and dento-maxillary system.
Specific objectives	• Acquiring the notions of morphology of the permanent human teeth and the structure of the odonto-periodontal unit. • Introduction of the morphology notions of temporary and permanent dental arches, according to developmental periods. • Acquiring of the notion of normal dental occlusion, both at the temporary and permanent arches, as well as mandibular-maxillary reference positions: centric relation, rest position, maximum intercuspation. • Theoretical study of the main functions of the dento-maxillary apparatus: mastication, phonation, physiomic function. • Detailed study of morphology of temporary and permanent human teeth by: assimilation of theoretical notions, drawing of the surfaces of permanent human teeth, modeling of representative teeth within each dental group, direct observation on extracted teeth, study of real and virtual models. • Model studies to analyze the characteristics of temporary and permanent dental arches. • Improving the ability to reproduce, through modeling, the theoretical knowledge of morphology of teeth and dental arches. • Exercise of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, interactive powerpoint presentations.**
Content	1. Dento-maxillary system - definition, components. Dental arches - generalities, tooth notation systems.
	2. Dental unit - general notions of tooth morphology. The crown and the root from the clinical and anatomical point of view. Dental surfaces, dental surface division. Common morphological features of permanent teeth.
	3. Similarities and differences in the anatomy of the teeth from the frontal group. The incisors.
	4. Similarities and differences in the anatomy of the teeth from the frontal group. The canines.
	5. Similarities and differences in the anatomy of the premolars.
	6. Common and differential morphological features of teeth in the posterior group. Molars.
	7. The odonton – histological components – Odontium (enamel, dentin, dental pulp). Overview with clinical applications. Periodontium (gingival fibromucosa, periodontal space, alveolar bone, cementum). Overview with clinical applications.
	8. Morphology of the endodontic space. Pulp cavity and pulp channels.

	Overview with clinical applications.
	9. Primary dental arches. Stages of evolution, Functions of temporary dentition. Morphological particularities of primary teeth compared to permanent teeth.
	10. Mixed Dentition. Permanent Dentition. Permanent dental arches features: shape, contact areas, teeth inclination, occlusion curves.
	11. Normal static occlusion relationship. Supporting cusps.
	12. Mandibulo-maxillary reference positions: postural position, centric relation, maximum intercuspation.
	13. Mandibular movements. Classification of mandibular movements. Analysis of the mandibular movements. Functions of the dento-maxillary system.
	14. Classification of the functions. Mastication. Stages of mastication. Masticatory cycle. Masticatory stereotype. Masticatory efficiency. The phonetic function. The Physionomic function.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-Point presentations, interactive presentations, practical demonstrations: professional movies and live demonstrations, transmitted through EduMed interactive software.
Practical activity carried out by students	• Exercises to recognize and describe teeth on real and virtual support (software dedicated to the learning of dental morphology). Exercises on dental drawing and carving, in different materials, methods and dimension-scales.
Content	1. Introduction, generalities. Types of dentitions, dental arches and teeth. Dental surfaces, description plane of a tooth. Carving plane of a tooth.
	2. Maxillary incisors. Description, design. Carving of the upper central incisor, scale 2X1.
	3. Maxillary incisors. Carving of the upper central incisor- part II.
	4. Mandibular incisors- model in wax, in natural size.
	5. Canines –carving of the maxillary canine.
	6. Revision of the frontal teeth group.
	7. Maxillary premolars-carving in wax, 2X1 in size.
	8. Mandibular premolars.
	9. Revision of premolars.
	10. Maxillary molars.
	11. Mandibular molars.
	12. Revision- molars.
	13. Occlusion.
	14. Primary teeth.
Bibliography	1. Dudea D. Dental Morphology- Lecture syllabus – Electronic formate- 2022-23. 2. Scheid R.C, Weiss G, Woelfel`s Dental anatomy, Enhanced 9th Edition, Jones and Bartlett Publishers, 2020. 3. Scheid R.C, Weiss G,- Woelfel`s Dental anatomy, 9th Edition, Williams & Wilkins, 2017.

	4. Brandt R.W., Isselhard D.E.- Anatomy of Orofacial Structures – Enhanced Seventh edition. Mosby, St.Loius, 2018. 5. Okeson J.P.- Management of Temporomandibular Disorders and Occlusion. 8th edition. Mosby, St. Louis, 2019. 6. Nelson SJ, Ash M.M. Wheeler's dental anatomy, Physiology and occlusion, 11th Edition, Philadelphia, W.B.Sanders, Elsevier 2019.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	**25%**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				1 Anatomy and Embriology					
Discipline				Anatomy and Embriology					
Cours title				**ANATOMY AND EMBRIOLOGY**					
Responsible for lecture				**Lecturer Dr. Alexandru Badea**					
Responsible for practical activity				Teaching Assistant Dr. Budusan Maria Teaching Assistant Dr. Creteanu Razvan					
The formative category of the discipline				DF					
Compulsory discipline				Compulsory/ optional/facultative					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	2	3	28	42	30	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• The course is organized for a whole series of students. • Students will attend classes at the place and on the days set according to the schedule. • The student's behavior must be civilized, adapted to academic life. • Attendance at the course is mandatory, being accepted a maximum of 20% absences from the total course hours. • The practical workshops are organized in groups

	of students. • The students will present themselves at the workshops in the place and on the days established according to the schedule. • The student's behavior must be civilized, adapted to academic life. • Lack of respect for the teaching material will not be tolerated, whether it is anatomical pieces or a corpse. • Students are required to participate in the ongoing checks, postponement without good reason is not accepted.

Professional competences	• Mastering anatomical terminology. • Acquisition by the student of an adequate medical language. • The acquisition by the student of the theoretical and practical notions of the individual anatomical elements and of the compound structures (systems of organs and apparatuses). • Correct mastery of exploration maneuvers and dissection techniques of normal anatomical structures. • Descriptive and topographic recognition of the anatomical elements of the human body. • Correlation of knowledge of descriptive anatomy with live morphological exploration of the notions of radio-anatomy. • Correlation of the elements of topographic anatomy with some notions of medical semiology.
Transversal competences	• Concern for professional development by training critical thinking skills demonstrated through active participation in the course and laboratory / seminar / project. • Involvement in scientific research activities by participating in the elaboration of papers, studies, specialized articles. • Efficient use of information sources and resources of communication and assisted professional training (Internet portals, specialized software applications, databases, online courses, etc.) both in Romanian and in a language of international circulation. • Recognition of the normal anatomical element and evaluation of its participation in achieving a pathological condition, anatomical support of any non-invasive exploratory act (CT, MRI) or invasive (surgical act).
General objectives	• Knowledge of the elements of descriptive and topographic anatomy of all components of the human body. • Knowledge of regions and spaces of the human body on axial segments (head, neck, trunk) or appendicular (limbs) in the topographic anatomy.

	• Knowledge of the complex morphology of organ and apparatus systems. • Morphological exploration on the prepared piece (corpse) and of the macroscopic and digital anatomical sections. • Acquiring international anatomical terminology (anatomical nomenclature).
Specific objectives	• Knowledge and understanding of anatomical elements. • Recognition of all anatomical elements. • Knowledge of the relationships between different anatomical elements. • Study of topographic regions and sectional anatomy. It is proposed that at the end of the course students be able to through: • Practical study on the corpse and on various anatomical preparations. • study of imaging anatomy. • Understanding and deepening the notions of clinical anatomy. • Correlation of theoretical data with those of applied anatomy to achieve a solid anatomical training, necessary during the university period, which is indispensable for the future dentist.

LECTURES	
Teaching methods	• **Master class. Interactive presentation of the material according to the analytical program using multimedia means, powerpoint presentations, didactic films, specific software.**
Content	1. Topographic regions chap.
	2. Viscerocranium. Maxilla and mandible. Anthropometric points. Bone pits: nasal, infratemporal and pterygopalatine. Orbit. Paranasal sinuses.
	3. Oral cavity, salivary glands. Temporo-mandibular joint. Chewing muscles.
	4. Neck topographic regions. Cervical plexus, cervical sympathy
	5. Pharynx, larynx. Thyroid, parathyroid glands. Head-neck vascularization.
	6. Cranial nerves 1.
	7. Cranial nerves 2. Anatomical landmarks in oral anesthesia.
	8. Development of the head and neck. Anomalies 1.
	9. Development of the head and neck. Anomalies 2.
	10. General nervous system. Spinal cord.
	11. The brainstem. Cerebellum.
	12. The diencephalon. Cerebral hemispheres. Blood supply of the central nervous system.

	13. Development of the central nervous system. Anomalies.
	14. Sectional anatomy.
PRACTICAL ACTIVITIES	
Teaching methods	• Checking the students' theoretical knowledge about the current work, proving by the student the knowledge of the dissection method, evaluating the way each student works.
Practical activity carried out by students	• Identification of macroscopic anatomical elements on cadaveric parts, macroscopic anatomical preparations, sections, anatomical and imaging plates.
Content	1. Skull bone demonstration: occipital frontal, parietal, ethmoid, sphenoid, temporal, palatine, zygomatic, hyoid. The maxilla and the mandible.
	2. The neurocranium. The viscerocranium. The Paranasal sinuses.The orbit. The nasal cavity. The infratemporal. The temporal and the pterygopalatin fossa.
	3. Dissection of the platysma muscle and superficial cervical fascia. The superficial vessels and nerves. The sternocleidomastoid muscle. The Ansa cervicalis. The middle cervical fascia. The infrahyoid muscles. The neurovascular bundle of the neck.
	4. The thyroid and parathyroid glands. The thyroid vessels. The suprahyoid region. The submandibular gland. The supraclavicular region. The subclavian vessels. The suprascapular vessels. The cervical . The scalene muscles.
	5. The facial muscles. The facial vessels. The facial nerve. Dissection of the facial nerve and facial artery. The inferior and superior facial regions. The temporal fossa. The masseter and temporal muscles. The parotid region and parotid gland. Dissection of the salivary glands. The prevertebral muscles and the deep cervical fascia.
	6. The exopharynx. The mandibulo – vertebro - pharyngeal space. The styloid diaphragm. The prestyloid space. The pterygoid muscles. The trigeminal nerve. The mandibular nerve. The otic ganglion. Dissection of the trigeminal nerve and it's branches. The maxillary artery. The retrostyloid space. The endopharynx. The structure of the pharynx.
	7. The oral vestibulum. The walls of the oral cavity. The teeth and the gingiva. The mandibular nerve. The soft palate. The pharyngeal vestibule. The palatine tonsils. The Inferior alveolar neurovascular bundle.
	8. The tongue. The lingual nerve, the lingual artery. Dissection of the lingual artery. The sublingual gland, the sublingual space, the glossopharyngeal nerve.The larynx.
	9. The external nose. The nasal fossa. The paranasal sinuses. Dissection of the maxillary sinus. The maxillary nerve. The temporo – mandibular joint. The ophthalmic nerve.

	10. The spinal meninges. External aspect and relations of the spinal cord. Spinal ganglia and nerve. Structure and blood vessels of the spinal cord. 11. The membranes and blood supply of the brain. The subarachnoid space. The subarachnoid cisterns. The sinuses of the dura mater. The vessels and the cranial nerves at the base of the skull. The hypophysis. Section through the cerebral peduncles.		
	12. External aspect of the brain stem. The apparent origin of the cranial nerves. The structure of the brain stem. Cerebellum: external aspect, relations, structure. The fourth ventricle. The prosencephalon. External aspect of the cerebral hemisphere. The Corpus callosum and lateral ventricles. The fornix.		
	13. The third ventricle. The structure of the Diencephalon and Telencephalon. Dissection of the insular lobe. Brissaud and Pitres sections. The corpus striatum, external configuration and structure. The structure of the cerebral hemisphere. Cortical regions. Synthesis of the nervous pathways.		
	14. The eyelids and the lacrimal apparatus. Dissection of the orbit. The occulomotor nerve. The Trochlear nerve. The ophthalmic nerve. The abducens nerve. The eyeball. The optic neve. The ophthalmic artery. The external and middle ear. The internal ear. The vestibulocochlear nerve.		
Bibliography	1. Moore Keith L, Agur Anne M.R.,Arthur F. Dalley, Clinically oriented anatomy, Sixth Edition, ISBN 978-1-60547-652-0, Wolters Kluwer Health, 2010. 2. Gray's Anatomy for Students, Fourth Edition, Richard L. Drake ; A. Wayne Vogl; Adam W. M. Mitchell, ISBN 9780323393041, Elsvier, 2019. 3. Moore Keith L., Agur Anne M.R., Essential Clinical Anatomy, Williams & Wilkins, 1995, ISBN 0-683-06128-3. 4. Mc Minn R.M.H. - Last's Anatomy Regional and Applied, 8-th Edition, 1990; Churchill Livingstone. 5. Sadler T.W., Langman's Medical Embryology, 6-th Edition; Williams & Wilkins, 1992. 6. Schumacher G-H, Topographic Anatomy, Veb Georg Thieme Leipzig, 1985. 7. Smith Wendel C.P., Williams P.L., Treadgold Sylvia, Basic Human Embriology, Third Edition, The English Language book society and Pitman, 1984, ISBN 0-272-79766-9. 8. Williams P., Warwick R.& Co, Gray's Anatomy 38th Edition, Churchill Livingstone, 1995, ISBN 0-443-04560-7.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Functional sciences
Discipline	Physiology
Cours title	**PHYSIOLOGY**
Responsible for lecture	**Associate Professor Dr. Teodora Mocan**
Responsible for practical activity	Associate Professor Dr. Teodora Mocan Assistant Professor Dr. Moga Adrian
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	In amphitheatre, with video projection . The students are not allowed to enter the amphitheatre with turned on mobile phones. The discussions among the students that can disturb the educational process, are not allowed. The students are not allowed to leave the room to talk at the phone. Eating, drinking of any king of food and fluids are forbidden. The students' delays are not tolerated because they disturb the educational process. In laboratory rooms with, the specific material. The students have to wear white coats. An individual portfolio must be completed by each student. The laboratory tests' results must be noted in the students notebook, that will be signed by the teacher of the students group.

Professional competences	• Ability in adequate utilization of the medical terminology. • Acquire of the practical experience necessary for utilization of the laboratory instruments, to investigate some.

	fundamental physiological mechanisms, and to test the studied clinical parameters. • Ability to interpret the laboratory tests. • Ability to correctly interpret the results of scientific studies. • Ability to efficiently use the medical sources.
Transversal competences	• Ability to use the studied notions in new conditions. • Ability to make correlations among the studied notions at different disciplines. • Ability to efficiently communicate in a team. • Concern for professional mastery through training of the critical thinking abilities. • Ability to use digital resources for medical data. • Acquire the interest for the own professional development.
General objectives	• Clearing up and understanding of some biological mechanisms of high complexity and difficulty. • Functional exploration of body's systems. • Development of observation sense and of the critical thinking, that are essential for the future's physician.
Specific objectives	• The course aims the study of the orofacial system physiology and the structures with which this system is connected. It is focused on the physiology of salivary secretion, of chewing, swallowing, phonation and of the temporomandibular joint. Also, the defense mechanisms of the oral cavity will be explained. Furthermore, topics that are related and influence the physiology of the orofacial system such as phosphate and glucose homeostasis, growth physiology, somesthesia and orofacial pain are to be detailed. Finally, during the course the students will explore other related topics: the sense of taste and smell and peripheral segments of other sensory systems at the level of the cephalic end. • Seminars and practical activities have the objective to deepen the concepts presented during the lectures and to study the most important evaluation tests involved in the physiology and pathology of the orofacial system. • Another aim is to use the equipment and the laboratory instruments in order to learn the physiological mechanisms. • To analyze the bibliographic data.

LECTURES	
Teaching methods	• **Lecture, Systematic Speech, Conversation, Problem solving**
Content	1. Oro-facial system: structure and physiology. Physiology of the oral cavity. Saliva: physical and chemical properties,composition. Salivary pH. Salivary buffer systems.

	2. The mechanism of saliva secretion. Principles of enzymes, ions and waters secretion. The regulation of saliva secretion.
	3. The functions of saliva. Hormones secreted by the digestive system: salivary hormones. Defense reactions in the oral cavity. Salivary immunoglobulins.
	4. Teeth physiology. Temporo-mandibular joint physiology.
	5. Phonation.
	6. Mastication. General principles of digestive motility. The physiology of the mastication. The regulation of mastication. Stretch reflex in the masticatory muscles.
	7. Swallowing. The regulation of swallowing.
	8. The roles of the cephalic phase in the regulation of the digestive system. Regulation of food and water intake. Hunger and thirst. Dietary balance.
	9. Vomiting. The reflex of cough and sneezing.
	10. The sense of taste. The sense of smell.
	11. Growth physiology. Growth hormone. The effects of thyroid hormones. The effects of the sexual hormones.
	12. The effects of insulin. The homeostasis of glycaemia. Glucocorticoid hormones.
	13. Calcium and phosphate equilibrium. The roles of the calcium. Calcium absorption. Vitamin D and its metabolism products. Parathormon. Calcitonin.
	14. Pain. Algoreceptors. Visceral pain. Referred pain. Dental pain. Pain inhibition and modulation.
PRACTICAL ACTIVITIES	
Teaching methods	Interactive Systematic Speech, Problem Solving, Demo, Individual Practical Activity.
Practical activity carried out by students	Performing of Laboratory Tests, Data Interpretation, Problem Solving.
Content	1. Salivary pH. Salivary buffer systems.
	2. Microscopic examination of the saliva.
	3.Identification of mucus and salivary electrolytes (phosphates, thiocyanate).
	4. Calcium identification in saliva. The roles of the calcium in the oral cavity.
	5. Ptyalin dosage.
	6. Effect of high temperature on ptyalin. The influence of salivary pH on amylase activity.
	7. Gastric acidity measuring.
	8. Dietary balances. Applications. Basal metabolism evaluation.
	9. Miotatic reflexes. The mastication reflex.
	10. EMG. Study of the skeletal muscle contraction.
	11. Reflex areas. The ocular-cardiac reflex.

	12. The oral glucose tolerance test.
	13. Hypocalcemia tetany.
	14. The exploration of the sensitivity: pain, touch and temperature.
Bibliography	1. Marieb EN, Hoehn K, Anatomy and physiology, Pearson, 2013. 3. Widmaier EP, Raff H, Strang KT, Vander's Human physiology The mechanisms of body function, McGraw-Hill, 2014. 4. Fox I, Human physiology, McGraw-Hill, 2011. 5. Tortora G, Derrikson B, Principles of anatomy and physiology, John Wiley&Sons Inc, 2009. 6. Dee Unglaub Silverthorn, Human physiology: An integrated approach, Pearson 2013. 7. Guyton AC, Hall JE,Textbook of medical physiology, Elsevier, 2006. 8. Escot-Stump S, Mahan LK, Krause's Food nutrition and therapy, Elsevier, 2007. 9. Suciu S. Physiology of the Orofacial System, Clusium, 2017. 10. Mitrea D.R. Human Physiology -Laboratory tests. Sibiu, Techno Media, 2006. ISBN (10) 973-7865-24-3. ISBN (13) 978-973-7865-24-3.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**80%**	**10%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 Morphologic sciences
Discipline	Histology
Cours title	**HYSTOLOGY (including CYTOLOGY)**
Responsible for lecture	**Associate Professor Boşca Adina Bianca DMD, PhD**
Responsible for practical activity	Associate Professor Boşca Adina Bianca DMD, PhD Lecturer Constantin Anne Marie MD, PhD Assistant Coneac Andrei MD, PhD
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Attendance to lectures is mandatory 70%, equivalent to 10 attendances during the semester. • Students are required to turn off their mobile phones and other electronic devices during the lectures, the practical works/labs and the exams. • The access with food or beverages in the classroom is forbidden. • Damaging the furniture, the microscopes or breaking the histological slides bring the penalty consisting in the payment of damages. • Smoking inside the building is forbidden. • Attendance to practical works/laboratories is compulsory 100%. • Absences due to medical reasons will be excused based upon the certificate signed by the Dean no later than 7 days. • Unexcused absences must be paid at the UMF cashier based upon the payment order issued by the Histology Department no later than 7 days. • Both excused and unexcused absences must be recovered. Students must negotiate with the professors the make-up of the missed labs. • Recovery of absences can be done during the semester (in labs when revision is planned) or in extra labs (organized for this purpose at the end of the semester). • Students who have unrecovered absences will not be allowed to sit the final exams. • The maximum number of absences (both excused and unexcused but paid, and recovered), is no more than 3 per semester. • Absences above 3 (20% of 14 - the total practical works/labs during the semester) cannot be recovered. • Therefore, students who have more than 3 absences will not be allowed to sit the final exam. • Students will wear medical white laboratory coats, will examine the histological slides under the light microscope and will complete their portfolios.

Professional competences	• Ability to properly use the special histology terminology. • Ability to correctly use the light microscope. • Ability to encompass, to render accurate histological diagnosis based on tissue examination. • A fundamental knowledge of the histological structure of the

	tissues and organs in the human body. • Ability to analyze and interpret the microscopic structure of the human tissues and organs. • Ability to systematically identify and range the criteria for the histological diagnoses. • Ability to render histological differential diagnoses for the tissues and organs.
Transversal competences	• To demonstrate the interest for the professional performance by the acquirement of a critical reasoning. • To prove the ability to use the digital devices for medical research. • To achieve communicating abilities.
General objectives	• Students will be able to use their theoretical knowledge in Histology in a clinical context, in order to acquire a proper integrated medical reasoning.
Specific objectives	Students will be able to: • Use a light microscope. • Analyze and interpret a histological section under the light microscope. • Identify and differentiate the histological staining procedures. • Render accurate histological diagnoses for the human tissues and organs. • Render accurate differential diagnoses for the human tissues and organs based on histological diagnoses. • Integrate the histological information into the fundamental and clinical subjects.

LECTURES	
Teaching methods	• **Conferences, systematic and interactive presentations, Power Point presentations, demonstrations of virtual histology, problem-based learning**
Content	1. CARDIOVASCULAR SYSTEM Overview. Classification. Arteries. Veins. Capillaries. Lymphatic vessels. Structure in LM and EM.
	2. HEMOIMMUNE SYSTEM part one: General considerations. Definition. Immunocompetent cells, roles. Hematopoietic bone marrow - Structure in LM and EM. Roles. Lymphoid tissue. Classification. B and T lymphocytes. Lymphopoiesis.
	3. HEMOIMMUNE SYSTEM part two: Spleen, Lymph node. Structure in LM and EM. Roles. Histophysiology.
	4. ORAL CAVITY: Overview. Oral mucosa. Lip. Tongue. Taste buds. Structure in LM and EM. Roles. Histophysiology. SKIN Structure in LM and EM. Histophysiology.
	5. ODONTOGENESIS: overview, stages of tooth development: early and late bell stage. Structure in LM and EM. Periodontium

	development; tooth eruption. Histophysiology.
	6. ADULT TOOTH: Overview. Pulp. Dentine. Structure in LM and EM. Roles. Histophysiology.
	7.ADULT TOOTH: Enamel. Structure in LM and EM. Roles. Histophysiology. PERIODONTIUM: Gingiva. Structure in LM and EM. Roles. Histophysiology.
	8. PERIODONTIUM Cementum**.** Periodontal ligament**.** Alveolar bone. Structure in LM and EM. Roles. Histophysiology.
	9. DIGESTIVE SYSTEM: General organization of the gastro-intestinal tract. Esophagus. Stomach. Small intestine. Large intestine. Structure in LM and EM. Roles. Histophysiology.
	10. DIGESTIVE SYSTEM: Salivary glands. Pancreas. Liver. Structure in LM and EM. Roles. Histophysiology.
	11. RESPIRATORY SYSTEM: Trachea. Lung. Structure in LM and EM. Roles. Histophysiology.
	12. URINARY SYSTEM Kidney. Ureter Structure in LM and EM. Roles. Histophysiology.
	13. ENDOCRINE SYSTEM part one: Overview. Pituitary gland. Structure in LM and EM. Roles. Histophysiology.
	14. ENDOCRINE SYSTEM part two: Thyroid gland. Adrenal gland. Structure in LM and EM. Roles. Histophysiology.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic and interactive presentations, demonstrations, exercises, case reports, demonstrations of virtual histology.
Practical activity carried out by students	• Examination of the histological preparations, interpretation of histological images, establishing the histological diagnosis, discussing the aspects of differential diagnosis, acquiring the knowledge and the practical histological skills.
Content	1. **Revision:** epithelia, CTs, muscle and nervous tissue.
	2. **Cardio-vascular system**. Aorta, Artery-vein-nerve complex. H&E stain and special staining.
	3. **Hemoimmune system:** hematopoietic bone marrow, spleen, lymph node. H&E stain and special staining.
	4. **Oral cavity**: lips, tongue, taste bud. **Skin**: thin and thick skin. H&E stain and special staining.
	5. **Adult tooth**: dentine and pulp. H&E stain and special staining.
	6. **Periodontium**: gingiva, periodontal ligaments, alveolar bone H&E stain and special staining.
	7. **Odontogenesis**: early and late bell stage. H&E stain and special staining.
	8. **Digestive system: main** salivary glands: serous and mixed salivary glands. **Revision***:* oral cavity and tooth.
	9. **Digestive system:** liver, pancreas. H&E stain and special staining.
	10. **Digestive system:** Gastro-intestinal tract: esophagus, stomach,

	small intestine: duodenum, jejunum, colon. H&E stain and special staining. **Revision.**
	11. **Respiratory system:** trachea, lung. H&E stain and special staining.
	12. **Urinary system:** kidney, ureter H&E stain and special staining.
	13. **Endocrine system:** pituitary gland, thyroid, adrenal gland**.** H&E stain and special staining. **Revision.**
	14. **Practical exam.**
Bibliography	Mandatory 1. **General Histology**: **Tissues**. Maria Crisan, Carmen Mihaela Mihu, Carmen Melincovici, Bianca Bosca, Anne Marie Constantin, Andrei Coneac, Ioana Moldovan. Editura Medicala Universitara "Iuliu Hatieganu", Cluj-Napoca, 2013 ISBN 978-973-693-554-1. 2. **General histology: Organs**. - Maria Crisan, Carmen Mihaela Mihu, Carmen Melincovici, Bianca Bosca, Anne Marie Constantin, Andrei Coneac, Ioana Moldovan, Hana Decean . Editura Medicala Universitara "Iuliu Hatieganu", Cluj-Napoca, 2015. 3. General Histology. Evaluation exercises. Editors: Constantin Anne-Marie, Boşca Adina Bianca. Authors: Constantin Anne-Marie, Boşca Adina Bianca, Mihu Carmen, Crişan Maria, Şuşman Sergiu, Şovrea Alina, Mărginean Mariana, Melincovici Carmen, Jianu Mihaela, Moldovan Ioana, Coneac Andrei. Contributors: Lavinia Mocan Rada Sufleţel Editura Medicală Universitaă "Iuliu Haţieganu" Cluj-Napoca 2018. 4. Special Histology. Evaluation exercises. Editors: Boşca Adina Bianca, Constantin Anne-Marie. Authors: Boşca Adina Bianca, Constantin Anne-Marie, Mihu Carmen, Crişan Maria, Şuşman Sergiu, Şovrea Alina, Mărginean Mariana, Melincovici Carmen, Jianu Mihaela, Moldovan Ioana, Coneac Andrei. Contributors: Lavinia Mocan Rada Sufleţel "Iuliu Hatieganu" Publishing House, Cluj-Napoca, 2018. Optional 5. Mescher A.L. Junqueira's Basic Histology. Text and Atlas, 12th edition. Lange Medical Books;Mc. Graw-Hill Medical Publishing Division; 2010. 6. Pawlina W. Histology a Text and Atlas, 7th edition, Lipincott Williams & Wilkins. 2016. 7. Kumar G.S. Orban's Oral Histology and Embryology, 13th Edition, 2011. 8. Hand A.R., Frank M.E. Fundamentals of Oral Histology and Physiology, Wiley Blackwell, 2014. 9. Berkovitz BKB, HollandGR, Moxham BJ. Oral Anatomy, Histology and Embryology 5th Edition Elsevier, 2017. 10. Nanci A (editor).Ten Cate's Oral Histology Development, Structure, and Function.9th Edition. Elsevier, 2017. eBook.

Evaluation:	Written exam	Practical exam	Activity during the semester:
Percent of the final grade:	60%	30%	10%

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				1 Pharmaceutical physics					
Discipline				Physics Biophysics					
Cours title				**BIOPHYSICS**					
Responsible for lecture				**Assoc.Prof. Dr. Nicoleta Simona Vedeanu**					
Responsible for practical activity				Assoc. Prof. Dr. Nicoleta Simona Vedeanu Lecturer Dr. Iacovita Cristian					
The formative category of the discipline				DF					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	Notions of physics at high school level for medical application Notions of physics at high school level
Requisites for lectures and practical activities	Amphitheatre + blackboard and projection system Laboratory room with specific instruments and devices

Professional competences	• Ability to use properly and in the context the specialized terminology. • Knowledge of physical models, the general principles of mechanics, thermodynamics, electromagnetism main laws, optics and structure of matter at atomic and subatomic level. • Ability to explain and interpret the theoretical and practical contents of physics in an interdisciplinary approach with other fundamental biomedical as chemistry, mathematics, cellular biology, biochemistry. • Understanding of peculiar aspects of pharmaceutical physicsf research. • Training skills of using specific methodologies and laboratory

	techniques. • Gaining experience and ability in handling laboratory equipment and techniques specific for the study of physics applied in life sciences: determination of properties and specific physical constants of materials: density of liquids and solids, specific heat, melting point, boiling temperature, surface tension coefficient, viscosity coefficient, refractive index, specific rotation angle etc. • Students necessity to acquire skills needed to use laboratory equipment: electrical equipment, spectroscopes, spectrophotometers, radiation detectors, pH meters, conductometers, oscilloscopes, polarimeters. • Students ability for the determination of some simple medical tests: hematocrit, hemoglobin, serum protein electrophoresis, the isoelectric point of proteins. • Students necessity to acquire specific skills for experimental measurements: errors calculation, graphics, linear interpolation.
Transversal competences	• Using the concepts in new contexts. • Using theoretical knowledge in solving problems. • Optimal and creative use of individual potential in and scientific activities. • Individual professional development.
General objectives	• Students must be able to explain based on the laws of physics the physical properties (mechanical, optical, thermal properties) of biological materials and dental materials, physiological and pathological processes occurring in biological systems; the relationships between physical and biological role of organic molecules, the effects of environmental factors on biological systems, the principles that underlie dental radiographic methods, applications of lasers in dentistry.
Specific objectives	• Students should be able to explain: • The physical principles underlying the physical methods and equipment used in dental medicine and research, quantitative, qualitative and structural analysis of different molecules of biological interest. • The physical - chemical and biological role of organic macromolecules based on structural data. • Environmental effects on biological systems, mainly the effects of ionizing radiation.

LECTURES	
Teaching methods	• **Lecture, systematic exposition, conversation, questioning**
Content	**Thermal properties of dental materials** 1. First principle of thermodynamics. Work. Heat. Internal energy. Applications. Calorimetry. Conservation of energy in the biological systems.

	2. Second principle of thermodynamics. Specific heat of solids. Vaporization and boiling. Distillation. Clausius Clapeyron equation.. Melting and freezing. Eutectics. The triple point. The phases rule.
	3. **Heat transport mechanisms** The transport of heat by conduction (Fourier), convection and radiation (radiation laws). Termoregulation at body level.
	4. **Notions of fluids** Static fluid mechanics. Pascal's law Archimede's law. Dynamics of fluids. Rheology. Notions of rheology for dental materials. Bernoulli law. Newton law
	5. Viscosity.. Non-Newtonian fluids. Surface tension. Jurin's law. Surfactant. Biophysics of blood circulation.
	6. **Colligative properties of the solutions** Osmosis. Medical applications.
	7. **Biomechanics.** Mechanical properties of teeth and dental materials: elasticity modulus, fracture resistance, hardness.
	8. **Sounds** Sensory biophysics. Infra- and ultra- sounds. Application in medicine. Weber Fechner law. Doppler effect. Human ear.
	9. **Optical properties of the matter**. Light: nature and properties. The absorption of light. Spectrophotometric determination of solution concentrations. Fluorescence, Fluorescence of teeth and dental materials. Polarized light.
	10. Lenses. Human eye. Microscopes and application in medicine.
	11. **Elements of radiation physics.** General notions of atomic physics. Fotonic optics. Photoelectric effect. Compton effect. Pair formation.
	12. Microwaves. Medical X-ray radiography, computer tomography, tomodensitometry.
	13. **Nuclear physics.** Atomic nucleus. Nuclear forces. Isobars. Isotopes Nuclear models. Natural and artificial radioactivity. Decay law.
	14. Irradiation doses. Biological dose. Protection against radiation. Medical applications (radiotherapy, scintigraphy, PET).
PRACTICAL ACTIVITIES	
Teaching methods	• Lecture, systematic exposition, conversation, questioning, demonstration.
Practical activity carried out by students	• Student work in small working teams of 2-3 people. Collecting data is team work; calculation, interpretation, graph is individual work.
Content	1. Internal rules discussion. Physical measures and units, errors calculation.
	2. Density determination. Liquids and solids density measurements by

	pycnometer.
	3. Viscometers. Hoppler viscometer.
	4. Viscometers. Ostwald viscometer.
	5. Surface tension coefficient determination - Traube method.
	6. Calorimetry. Specific heat determination solids and liquids. The melting latent heat coefficient determination.
	7. Electricity: electrolysis, e.m.f. determination of galvanic element, galvanic cell, pH determination.
	8. Refractometry. Determination of solution concentration.
	9. Polarimetry. Determination of solution concentration.
	10. Spectrophotometric determination of concentration for solutions of biological interest.
	11. Lenses. Optical microscope.
	12. Air humidity determination.
	13. Revision. Exam preparation. Discussion.
	14. Practical exam.
Bibliography	1. Lectures and lab materials in electronic format. 2. Sears and Zemansky University Physics, H. Young, R. Freedman, l. Ford, 12 th Edition, Pearson Addison Wesley Publisher, 2007. 3. F. Gremy, Biophysique, Ed. Flammarion, Paris, 1982. 4. A. Bouyyssy, M. Davier, B. Gantz, Physique pour les sciences de la vie, Ed. Belin, Paris, 1988. 5. C. Codruta Nicola, Materiale dentare. Consideratii clinice si tehnologice. Editura Casa Cartii de Stiinta, Cluj-Napoca, 2009. 6. G Margineanu, M.I.Isac, C.Tarba, Biofizica, Ed. Didactica si Pedagogica, Bucuresti, 1980. 7. Physics in Biology and Medicine, 3rd edition, P. Davidovits, Complementary Science Series Academic Press, 2007. 8. A. Aurengo, T. Petitclerc, Biophysique 3rd edition, Medicine-Sciences Flammarion, 2006. 9. Il mondo Fisico, V. Bacciarelli, P. A. Giustini, Trevisini Editore, Milano, 1. 10. C.M.Lucaciu, Physique et Biophysique experimentales, Editura Medicala Universitara “Iuliu Hatieganu” Cluj-Napoca, 2000.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70 %**	**20 %**	**10 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters

Qualification	Doctor of Dental Medicine
Department	3 Molecular Sciences
Discipline	Cellular and molecular biology
Cours title	**CELLULAR AND MOLECULAR BIOLOGY**
Responsible for lecture	**Gheorghe Zsolt Nicula, MD, PhD, Senior lecturer**
Responsible for practical activity	Adrian Florea, MS, PhD, Professor Romana Vulturar, MD, PhD, Professor Adina Ancuţa Chiş, MS, PhD, Senior lecturer Lucian Frenţescu, MD, PhD, Senior lecturer Gheorghe Zsolt Nicula, MD, PhD, Senior lecturer
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	2	2	28	28	19	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Biology, Chemistry at High School level.
Requisites for lectures and practical activities	• Students will have the phones turned off during the lectures and will not leave the classroom in order to retrieve personal phone calls. • Consumption of foods and beverages during the course is prohibited. • No delay will be tolerated as this affects the education process. • Students are required to attend at least 70% of the lectures (10 out of 14 two-hour lectures). Their presence will be documented by personal signatures on the presence sheet. • Lecture absences can be cancelled only if attending the same lecture in another day of that week with a different series. • Students will have the phones turned off during the practical works and will not leave the classroom in order to retrieve personal phone calls. • Consumption of foods and beverages during the course is prohibited. • No delay will be tolerated as this affects the education process. • Students are required to attend all practical works in white labcoats with writing and drawing instruments (including colored pencils), guides for practical works and notebooks including an abstract of the practical

	work scheduled for that week. • Students could be examined orally or in writing in regard to theoretical and practical knowledge concerning the practical work scheduled for that week or about theoretical aspects of cell and molecular biology lectured in the previous week; • Presence in all practical works of cell and molecular biology (14 two-hour sessions) is compulsory. Absences need to be recovered according to regulations established by the university senate.

Professional competences	• To understand the basic concepts of the cell organization and the organization and functioning of the genetic material. • To understand the medical applications of fundamental theoretical concepts of Cell and Molecular Biology needed for a physician. • To develop laboratory practical skills needed in subsequent years of medical practice (correct use of the light microscope, DNA isolation techniques). • To identify and describe morphological and ultrastructural aspects of cellular components as well as changes occurring during biological processes (mitosis) by optical microscope studies of biological preparations and transmitting/scanning electron microscopy images, respectively. • To use efficiently information resources in the field of cell and molecular biology. • To correctly understand and analyze results in scientific articles.
Transversal competences	• To demonstrate concerns for professional development through training of critical thinking abilities. • To demonstrate involvement in research, e.g. writing of scientific articles. • To demonstrate the ability to use digital techniques to gain information in the field of cell and molecular biology.
General objectives	• Students graduating this course will be able to understand the medical applications of fundamental theoretical concepts regarding cell and molecular biology needed for a physician and will develop some molecular medicine laboratory skills needed in the coming years of medical practice.
Specific objectives	• Students graduating this course will be able to: • Compare the general characteristics of prokaryotes and eukaryotes. • Discuss the structure - function relationship of the most important types of molecules (nucleic acids, proteins, carbohydrates and fats) and know how to spot them in cellular structures. • Argue the unity of the living matter's biochemical organization.

	• Explain the structure, functions and cellular location of the cytoplasmic matrix components and the medical applications resulting from their study. • Define biological membranes, classify the main types of cell membranes and describe their molecular organization; • Define receptors and exemplify key mechanisms they are involved in. • Classify membrane transport, explain the mechanisms by which the most important transport modalities occur and exemplify some pathological implications. • Classify membranes' implications in pathology based on their molecular mechanism. • Characterize morphologically and ultrastructurally the interphase nucleus, enumerate the chromosomes' functions and describe their morphological characters, characterize and present medical applications of the nuclear chromatin resulted from its study. • List and describe the stages of mitosis and meiosis. • Describe the morphology, ultrastructure and chemical composition of cell organelles (endoplasmic reticulum, Golgi apparatus, lysosomes, peroxisomes, mitochondria), detail their functions and describe the medical applications resulting from their study. • Define cellular necrosis and apoptosis and explain their occurrence. • Explain the significance of the central dogma of molecular biology and summarize its schematic representation. • Describe the mechanisms of DNA replication, transcription and translation of genetic information, present medical applications resulting from the study of these processes, explain the significance of the genetic code and detail amendments to the central dogma of molecular biology. • Present the unifying theory of cancers and recognize the oncogenes' characteristics, exemplify carcinogens and detail the cellular mechanisms of cancers. • Describe the light microscope components, explain how images are formed on the human retina, properly use laboratory microscopes. • Describe the basic principles of some special light microscopy techniques, as well as transmission and scanning electron microscopy. • Recognize the main chemical cellular components and pigment inclusions in permanent histochemically stained preparations. • recognize and describe mitosis stages in permanent histochemically stained preparations.

	• Recognize and describe the ultrastructure of cellular components based on the study of transmission/scanning electron microscopy images. • Perform various cell and molecular biology techniques like the subcellular fractioning by differential centrifugation, the separation of lipid fractions by thin layer chromatography, and the DNA isolation from animal liver cells. • Explain the general concepts of some cytogenetics methods like the Barr test and the human karyotyping, as well as some molecular medicine techniques: the separation of DNA fragments by agarose gel electrophoresis and the Polymerase Chain Reaction technique.

LECTURES	
Teaching methods	**Academic lectures, interactive systematic presentation, and discussions**
Content	1.Introduction to Cell and Molecular Biology. General information about the cells.
	2.Molecular basis of chemical organization of the cell.
	3.Cytoplasmic matrix, cytoplasmic differentiations.
	4.Molecular basis of the cell motility.
	5.Molecular biology of the cell membranes.
	6.Nucleus. Eukaryotic chromosomes: cell and molecular biology aspects and medical applications.
	7.Cell reproduction and cell division.
	8.The endoplasmic reticulum.
	9.The Golgi apparatus. Cell secretion.
	10.Lysosomes. Peroxisomes.
	11.Mitochondria.
	12.Extracellular matrix and cell adhesion. Cellular recognition. Cell death.
	13.The central dogma of molecular biology and its medical applications.
	14.Malignant cells and oncogenes.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive syste-matic presentation, discussions and demonstrations, individual exercises. Acquiring concepts related to the practical works through individual study based on the Practical works for cell and molecular biology guide.
Practical activity carried out by students	• Developing abilities to work with the optical microscope, recognition and description of cell components' morphology. • Performing cell and molecular biology tech-niques, learning general concepts related to different cyto-genetics and molecular medi-cine techniques. • Study of transmission and scanning electron microscopy images

	for recognizing the cellular ultra-structure, inclu-ding medical applications of the electron microscopy.		
Content	1. The light microscope. The study of cellular movements.		
	2. Special techniques of light microscopy: immersion microscopy and dark field microscopy.		
	3. Special techniques of light microscopy: phase contrast microscopy and fluorescence microscopy.		
	4. The study of cell components on slides with specific hystochemical stainings. The study of cell inclusions.		
	5. The study of cell division.		
	6. The light microscopy study of the cell organelles.		
	7. The separation of cells and obtaining the isolated cells.		
	8. Cell fractioning by differential centrifugation.		
	9. The study of deoxyribonucleic acid (DNA): extraction, ultraviolet spectrophotometry and concentration measurements.		
	10. DNA separation by agarose gel electrophoresis. General notions about the *Polymerase Chain Reaction* technique.		
	11. Study of mitochondria: determination of oxygen uptake and of oxidative phosphorylation.		
	12. Lipid extraction from cell membranes and separation of lipid fractions by thin layer chromatography.		
	13. Transmission electron microscopy applied in cellular studies.		
	14. Scanning electron microscopy. Electron microscopy images (electron micrographs).		
Bibliography	**Mandatory bibliography:** 1. English course support in electronic format. 2. Benga G., Introducere în Biologie Celularã şi Moleculară, Ed. Medicalã Universitarã, Cluj-Napoca, 2005. 3. English practical support in electronic format. 4. Benga G. (sub redacţia), Îndrumător pentru lucrările practice de biologie celulară şi moleculară, Editura Carpatica, Cluj-Napoca, 1997. **Supplementary bibliography:** 1. Alberts B., Bray D., Hopkin K., Johnson A., Lewis J., Raff M., Roberts K. and Walter P., Essential Cell Biology, second edition, Garland Publishing, Inc., New York, 2014. 2. Lodish H., Berk A., Kaiser C.A., Krieger M., Bretscher A., Ploegh H., Amon A., Martin K., Molecular Cell Biology, 8th edition, Palgrave Macmillan Higher Ed, New York, 2016.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and	University of Medicine and Pharmacy "Iuliu Haţieganu"

postgraduate studies	Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	12 Medical education
Discipline	Modern languages
Cours title	**ROMANIAN LANGUAGE**
Responsible for lecture	-
Responsible for practical activity	Assisting Professor Anda Lăscuş
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1, 2	0	2+2	0	28+28		56	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• To respect the rules and regulations for practical activities

Professional competences	• The ability to properly employ Romanian (listening, reading, speaking, writing) in order to communicate in general contexts, both academic and medical • The ability to use medical terms specific to various fields
Transversal competences	• The ability to employ prior knowledge of Romanian in medical and academic activities in order to communicate adequately in Romanian • The ability to make interdisciplinary connections in the fields of study
General objectives	• Development of competences in general Romanian and in academic medical language
Specific objectives	• At the end of the seminar, the learner will be capable to: - introduce himself/ herself and to speak about himself/ herself. - ask and to offer information in familiar contexts. - describe a person or an object using adjectives. - express preference, agreement and disagreement. - speak about daily activities. - name the parts of the human body. - express pain.

	- speak about his/ her family.

PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching and multimedia support
Practical activity carried out by students	• Specific exercises and activities (individual, in pairs or in groups) aiming to develop the main competences in Romanian (speaking, listening, reading, and writing)
Content	1. I am a student at the University of Medicine and Pharmacy in Cluj-Napoca, Romania! – general presentation. The alphabet. Specific sounds and sound groups.
	2. Nationalities, greetings and introducing oneself. The verbs to be and to have (affirmative and negative).
	3. The time. Expressing the date and the time. Days of the week, months of the year, seasons. The weather forecast. Cardinal numbers.
	4. What are you doing today? Daily activities. Verb groups (I, IV).
	5. What are you doing today? Daily activities. Verb groups (II, III).
	6. What are you doing this week? The weekly schedule.
	7. Means of transport. Frequency adverbs.
	8. Irregular verbs. 2nd conjugation verbs.
	9. What is your career choice? Professions. Activities. Specific goals. The noun (gender, number).
	10. Let's go to the market! Food types (fruit, vegetables, dairy products, etc.).
	11. The definite article.
	12. Let's go to the restaurant! The menu. The indefinite article.
	13. Revision
	14. Oral test (describing images)
	15. Outside orientation. In the taxi.
	16. Where do you live? The house. Objects in the house. Inside orientation – prepositions
	17. What do you like to wear? Clothes. The adjective. Colours.
	18. How was your holiday? The past tense simple. Expressions with the past tense simple.
	19. What are you doing today? How was your day? The daily schedule. Reflexive verbs with pronouns in the Accusative case. Writing a letter.
	20. The human body (external parts).
	21. Giving a physical and moral description of a person.
	22. The adjective – revision.
	23. At the hospital. The medical and auxiliary personnal.
	24. The subjunctive mood (without the third person).
	25. My family. Presentation.
	26. Future projects. Verbs in the future tense.
	27. Revision.
	28. Written and oral tests.

Bibliography	1. Gogâţă C., Tomoiagă A., Băgiag A., Coiug A., Andreica A., *Limba română medicală. Sinteze pentru studenţii Erasmus*, Editura Universitară Medicală, Cluj-Napoca, 2018. 2. Andreica A., Băgiag A., Coiug A., Gogâţă C., Tomoiagă A., *Româna medicală pentru nivel intermediar*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 3. Băgiag A., Andreica A., Tomoiagă A., Coiug A., Gogâţă A., *Limba română în context stomatologic*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 4. Gogâţă C., Tomoiagă A., Coiug A., Andreica A., Băgiag A., Ursa A., *Limba română. Elemente de limbaj medical. Nivel A2*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2018 5. Bejan, D. Gramatica limbii române. Ediția III, Cluj, Ed. Echinox, 2001. 6. Brâncuş, G. Ionescu A., Saramandu M., Limba Română. Manual pentru studenţii străini. Ediția IV, Ed. Universității din București, 1996. 7. Dorobăţ, A., Fotea, M. Limba română de bază. Iași, Ed. Institutul European, 1999. 8. Kohn, D., Puls. Limba română pentru străini. Iaşi, Ed. Polirom, 2009. 9. Platon, E., Sonea, I., Vîlcu, D. Manual de limba română ca limbă străină (RLS). A1-A2. Cluj-Napoca, Casa Cărţii de Ştiinţă, 2012. 10. Pop, L. Româna cu sau fără profesor. Ediția V, Cluj-Napoca, Ed. Echinox, 2003.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**33%**	**33%**	**34%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Dental Propedeutics and esthetics
Cours title	**SUMMER MEDICAL PRACTICE**
Responsible for lecture	**Lecturer Dr. Alexandra Botoş**
Responsible for practical activity	
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	0	40	0	160		160	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Attendance is mandatory in a proportion of 100%. • Adequate dress code – lab coat. • Filling in the summer medical practice notebook, in accordance with the curriculum.

Professional competences	• Medical practice activities in general medicine units. • Medical practice activities in dental medicine units.
Transversal competences	• Ability to work in a team during therapeutic procedures.
General objectives	• Acquiring the knowledge of the working of general medicine units and dental medicine units.
Specific objectives	• Knowledge of the working of general medicine units and dental medicine units, the patients' and dental instruments' circuits. • Learning and exercising the examination of patients, elaboration of the patient chart. • Learning notions regarding preparation of the instruments for disinfection and sterilization and regarding instrument sterilization. • Knowledge of the specific instruments used in the medical unit where the student goes for summer medical practice.

PRACTICAL ACTIVITIES	
Teaching methods	
Practical activity carried out by students	
Content	**Common subjects** 1. Knowledge of the structure and functioning of the medical unit. 2. Knowledge of the medical documentation which is used in the medical facility where the summer practice takes place (patient directory, patient charts, primary and special log registries, admission/discharge sheets, referral tickets, medical prescriptions). 3. Knowledge of, and ability to perform, the charges of the medical staff of the medical facility regarding admission and preparation

	of patients for the medical examination. Way of being around a patient – general discussion about the current sickness and previous ones. 4. Ability to perform the task of medical staff of processing used medical instruments – was up, digressing, disposal of syringes and needles, sterilization, storage and circuit of sterile materials. 5. Knowledge of the charges of medical staff to keep the hygiene in the medical facility. 6. Ability to perform basic disinfection and sterilization procedures – cold chemical sterilization, heat sterilization methods (devices and sterilization regimens). 7. Sample taking, conservation and transport of biological samples for current laboratory exams. 8. Elementary procedures of patient examination – palpation, pulls, respiratory rhythm, arterial tension, etc. 9. Ability to perform first aid, according to the Red Cross manual – bandage use, haemostasis, splinting, medical emergencies. 10. Identification of dental instruments used for patient examination. Knowledge of the dental instruments used for current dental treatments. 11. Knowledge of the structural info of the dental examination unit – structural parts, principle of functioning, correct position for the doctor and for the patient. 12. Knowledge of the correct methods for prevention of contamination of the dental practice (the air, dental unit) and spreading of transmissible diseases. 13. Knowledge of maneuvers and attitudes of patient care. 14. Knowledge and ability to perform the attributions of the dental assistant regarding the preparation for use of dental materials (customized depending on the practice profile).		
Bibliography	-		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:			**100%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	12 Medical education

Discipline				Sport					
Cours title				**PHYSICAL EDUCATION**					
Responsible for lecture				-					
Responsible for practical activity				**Associate Professor PhD Mihai Ludovic Kiss**					
The formative category of the discipline				DC					
Compulsory discipline				Compulsory/ optional/facultative					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1, 2	0	1+!	0	14+14		28	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Minimal motricity skills after graduating the high school
Requisites for lectures and practical activities	• Students will not attend practical courses / activities with open mobile phones. Also, telephone conversations will not be tolerated during the course or practical activities, nor do students leave the gym to take personal phone calls (emergency only). • Food and beverages are not allowed during the practical activities. • It will not be tolerated the students' delay in the practical activities as it proves to be disruptive to the educational process. Students will be equipped according to the specificity of physical education. • Students will display an appropriate attitude towards the teaching process, teaching materials, teachers and colleagues.

Professional competences	• Formation of future doctors, family doctors according to modern concepts regarding the optimization of the lifestyle of the population, based on the systematic practice of physical activities and exercises.
Transversal competences	• Applying certain notions and skills acquired in daily activities. • Forming a healthy lifestyle by exercising regularly. • Self-development and continuous adaptation to new physical activities.
General objectives	• Maintaining an optimal state of health by forming the habit of systematic practice of physical exercises.
Specific objectives	• Outline knowledge of the importance of training and systematic exercise of physical exercises in order to maintain optimal health. • Knowledge and application of physical exercise practice in open air for health maintainence. • Development of the capacity and habit to practice sistematically

	physical exercises as a main component of a healthy lifestyle („Mens sana in corpore sano”). • Knowledge of certain aspects regarding the prevention and correction of deficient attitudes and recovery of certain post-traumatic sequelae and those caused by some diseases. • Knowledge of the terminology specific to the activity of physical education and certain sports. • Development and cultivation of aesthetic sense and the formation of a positive attitude towards artistic activities.

PRACTICAL ACTIVITIES			
Teaching methods	• Lecture, explanation, demonstration.		
Practical activity carried out by students			
Content	1. General physical development.		
	2. Corrective and recovery physical activities (sports activities that require low physical effort).		
	3. General notions about the game of basketball.		
	4. General notions about the game of volleyball.		
	5. General notions about the game of football.		
	6. General notions about ball-room dance.		
	7. General notions about aerobic, Tabata and other specific body trainings.		
	8. General notions about fitness, bodybuilding.		
	9. General notions about table tennis, badminton.		
	10. Competitive games with different objects in small groups.		
	11. Workshops – general physical training.		
	12. General notions about chess, schi-tourism.		
	13. General notions regarding elements of medical gymnastics.		
	14. Final evaluation.		
Bibliography	1. Popovici Cornelia, Kiss Mihai, David Sergiu, Kollos Ciprian, Fotbal – caiet de lucrări practice 2020. 2. Kiss Mihai, Kollos Ciprian, Popovici Cornelia, David Sergiu, Volei – Caiet de lucrari practice, 2019. 3. Kollos C., Kiss M.L., Popovici C., David S., Baschet – Caiet de lucrări practice, 2017. 4. Kiss Mihai Ludovic, Popovici Cornelia - Dans de societate – caiet de lucrări practice, 2017. 5. M. Kiss, Caiet de lucrări practice: Culturism - Fitness, 2013. 6. C. Suciu, Îndreptar de lucrări practico-metodice, 2013. 7. Regulamentele ramurilor de sport practicate.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**

Percent of the final grade:	**-**	**70 %**	**30 %**

2ND YEAR

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Dental materials, Ergonomics
Cours title	**DENTAL MATERIALS**
Responsible for lecture	**Vacant Şef Lucr. 35**
Responsible for practical activity	Lecturer Dr. Adriana Objelean Lecturer Dr. Andrada Voina As 54 Vacant
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	2	2	28	28	94	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• High school elementary knowledge of organic and inorganic chemistry and physics. Elementary knowledge of biochemistry and teeth morphology.
Requisites for lectures and practical activities	• Video projection amphitheater. • Laboratories with specific practical activity equipment.

Professional competences	• Ability to adequately use the specialty terminology. • Interdisciplinary synthesis capacity development of organic and inorganic chemistry, physics, and biochemistry to comprehend and knowledge the general properties of dental materials. • Knowledge regarding general principles of adhesion. • Assimilation of the available information regarding properties and handling of impression materials. • Knowledge regarding: metals and alloys. • Required practical experience acquisition to handle different types of impression materials.

Transversal competences	• Use of assimilated information in new contexts. • Application of theoretical concepts in the practical activity. • Interdisciplinary correlations within the study domains.
General objectives	• Knowledge of fundamental concepts of composition, properties, and indications for the use of restorative dental materials, focusing on practical applications.
Specific objectives	• Acquire basic knowledge about the composition, properties, and indications for the use of dental materials, with an emphasis on practical applications. • Detailed study of the preparation and manipulation of dental materials used directly by the dentist in the dental office. • Acquire basic knowledge in the formulation and use of dental science. • The theoretical and logical algorithm of choice of the most suitable material for a particular clinical situation. • Capacity execution and bibliographic documentation summary.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive courses.** • **Oral presentation, PowerPoint presentation**.
Content	1. Classification of dental materials. Properties of dental materials during storage, mixing, during and after setting reaction.
	2. Classification of dental materials. Properties of dental materials during storage, mixing, during and after setting reaction.
	3. Classification of dental materials. Properties of dental materials during storage, mixing, during and after setting reaction.
	4. Biocompatibility of dental materials.
	5. Principles of adhesion in dentistry.
	6. Impression materials: imposed conditions of a rigid impression material, classification, properties, and indications.
	7. Metals and dental alloys: terminology, presentation forms, classification, structure and thermal behavior.
	8. Noble and non-noble dental alloys. Titanium.
	9. Ceramic-compatible alloys. The bond between metal-aesthetic component– theories, principles, imposed conditions.
	10. Ceramics: composition, properties, classification of ceramic systems.
	11. Ceramics: technology and clinical applications of PFM and full-aesthetic ceramic restorations.
	12. Polymers. Resin-based composites: classification, properties, indications. Heat-based polymerization-graphics, conditions, advantages/disadvantages.
	13. Lab resin-based composites.Classification, composition, properties, indications.
	14. Fiber -reinforced resin-based composites-clinical indications.

PRACTICAL ACTIVITIES			
Teaching methods	• Interactive discussions and practical demonstrations.		
Practical activity carried out by students	• Performing different methods and techniques for handling impression materials and interactive discussions about practical applications of the dental materials' properties in clinical cases.		
Content	1. Classification of dental materials.		
	2. Mechanical properties-stress-strain relation.		
	3. Teeth color choice using the shade guide.		
	4. Chemical properties-solubility.		
	5. General rules of handling the dental materials.		
	6. Rigid impression materials.		
	7. Elastic reversible impression materials.		
	8. Irreversible elastic impression materials-hydrocolloids-alginate and alginate substitute materials.		
	9. Irreversible elastic impression materials – putty-like elastomers.		
	10. Irreversible elastic impression materials – light-body elastomers.		
	11. Dental metallic alloys-phase diagrams.		
	12. Ceramics – ceramic kit.		
	13. Polymers-polymerization reaction.		
	14. Practical examination.		
Bibliography	1. Ronald L. Sakaguchi, John M. Powers. Craig's restorative dental materials - 14th ed.Elsevier Mosby 2018. 2. Chiayi Shen, H. Ralph Rawls, Josephine F. Esquivel-Upshaw. Phillips' Science of Dental Materials, 13th Edition, ed.Elsevier Mosby 2021. 3. Andre V. Ritter. Sturdevant's Art and Science of Operative Dentistry, 7th Edition, 2018. 4. Stephen F. Rosenstiel, Martin F. Land. Contemporary Fixed Prosthodontics, 5th Edition, Ed Elsevier, 2015. 5. Richard Van Noort. Introduction to Dental Materials, 4th Edition. ed Elsevier, 2013. 6. W. Stephen Eakle, Kimberly G. Bastin. Dental Materials, Clinical Applications for Dental Assistants and Dental Hygienists, 4th Edition. Ed. Elsevier 2020. 7. Nicola C şi colab. – Materiale dentare – Consideraţii clinice şi tehnologice. Ed. Casa Cărţii de Ştiinţă, Cluj-Napoca, 2009.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**30%**	**30%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca

Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 Morphologic sciences
Discipline	Pathological anatomy
Cours title	**PATHOLOGY**
Responsible for lecture	**Assoc. Prof. Dr. Dan Gheban** **Assis. Prof. Dr. Carmen Georgiu**
Responsible for practical activity	Assoc. Prof. Dr. Mihaela Mera, MD, PhD Teaching Assistant Dr. Bogdan Pop Teaching Assistant Dr. Alexandra Buruiană-Simić Teaching Assistant Dr. Diana Gonciar Teaching Assistant Dr. Raluca Szilveszter Teaching Assistant Dr. Maria Bungărdean Resident of pathology, Dr. Silvia Spânu, MD, PhD Resident of pathology Dr. Diana Negruțiu, MD, PhD student
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	2	3	28	42	55	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Amphitheater equipped with computer/ laptop and video projector, whiteboard. • Room for practical labs of macroscopy equipped with: computer / laptop and video projector, containers with organs with lesions kept in formalin, stainless steel mobile table for transporting teaching materials, shelves for storing containers, whiteboard. • Autopsy room. • Practical microscopy work room equipped with: tables, optical microscopes, computer / laptop, video projector, monitors, image transmission system, whiteboard.

Professional competences	• To recognize, based on the notions of pathological anatomy, the main categories of pathological processes. • To recognize, based on the notions of pathological anatomy, the

	main lesions encountered in oral pathology. • To formulate an anatomopathological diagnosis, based on the theoretical and practical notions acquired. • To interpret correctly a pathological report. • To analyze and elaborate the therapeutic management of patients with oral diseases, depending on the pathological diagnosis.
Transversal competences	• Integration of notions of pathological anatomy in the context of skills acquired in other disciplines. • Applying the notions of pathological anatomy in the specialized practical activity. • Ability to communicate pathological diagnosis to patients. • Concern for professional development by training critical thinking skills. • Involvement in research activities and in the elaboration of scientific articles. • Ability to use digital media for medical information.
General objectives	• Good knowledge, deepening and correct use of the notions of general and oral pathology.
Specific objectives	• Acquisition of general knowledge on macroscopic and microscopic aspects of different categories of pathological processes (circulation disorders, metabolic disorders, inflammation, tumors, developmental disorders), knowledge necessary for understanding oral pathological processes. • Acquisition of knowledge of oral pathological anatomy, of local or general origin. • Carrying out correlations between pathological anatomy and etiology, pathogenesis, clinical manifestations, evolution and complications of lesions. • Exemplification of pathological processes through lesions more frequently encountered in general and dento-maxillo-oral medical practice. • Use this knowledge later, in order to understand the notions presented in other areas of the dental curriculum (eg, general medicine, general surgery, general anesthesia, oral medicine, oral surgery, periodontics, endodontics).

LECTURES	
Teaching methods	• Lecture, systematic exposure, conversation, clinico-pathological correlations. • Interactive exposure using multimedia means, PowerPoint presentations.
Content	**1. FLUID AND HEMODYNAMIC DISORDERS.** Hyperemia. Hemorrhage. Ischemia. Thrombosis. Embolism. Infarction. Edema.
	2. METABOLIC DISORDERS. Adaptive processes (Hypertrophy. Hyperplasia. Atrophy. Metaplasia). Cell injury and cell death. Cellular

	degeneration. Steatosis. Necrosis. Apoptosis.
	3. METABOLIC DISORDERS. Intracellular and extracellular accumulations. Pigments: Melanin. Hemosiderin. Bilirubin. Calcification. Lithiasis.
	4. INFLAMMATION AND HEALING General features**.** Acute inflammationChronic inflammation: Bacterial inflammations: Tuberculosis, Syphilis, Rhinoscleroma, Actinomycosis. Fungal inflammations: Candidiasis. **HEALING**
	5. TUMORS Carcinogenesis. Tumor biology. General features of benign and malignant tumors. Tumor invasion and metastasis Epithelial tumors: benign and malignant. Benign: Papilloma, Adenoma. Malignant: Squamous carcinoma. Adenocarcinoma.
	6. TUMORS Soft tissue tumors: benign and malignant (Fibrous, muscular, adipose, fibrohistiocytic, vascular tumors). Melanocytic tumors.
	7. DENTAL PATHOLOGY. Disorders of eruption end shedding of teeth. Hypodontia and anodontia. Hyperodontia. Microdontia and macrodontia. Disturbances of the crown and root. Mixed corono-radicular disturbances. Disturbances in the structure of teeth.
	8. DENTAL PATHOLOGY. Amelogenesis imperfecta. Disturbances of the teeth enamel. Internal and external discoloration of teeth. Dentinogenesis imperfecta. Dentinal dysplasia and regional odontodysplasia. Inclusions. Ankylosis, transposition and ectopia. Attrition, abrasion and erosion. Dental caries and plaque. External and internal resorbtion. Pulpitis: etiology and classifications. Reversible pulpitis. Acute irreversible pulpitis. Chronic pulpitis. Periapical granuloma.
	9. DENTAL PATHOLOGY. Periodontal apical cyst. Periapical abscess. Gingivitis. Gingival hyperplasia (drug-induced) and gingival fibromatosis. Adult chronic peridontitis. Early peridontitis. Periodontitis from HIV infection and Papillon-Lefevre syndrome. Lateral periodontal abscess and acute pericoronitis.
	10. ORAL CAVITY PATHOLOGY. Malformations of the mouth and lips. Clefts of the lips, palate, face. Malformations of the tongue. Malformations of the oral mucosa. Benign migratory glossitis.
	11. ORAL CAVITY PATHOLOGY. Catarrhal stomatitis. Serous stomatitis. Aphtous stomatitis. Purulent stomatitis and ulcero-necrotic stomatitis. Tuberculous stomatitis. Oral candidiasis. Celullitis and Ludwig's angina. Hematogenous spread of oro-facial infections. HIV infection. Pyogenic granuloma and peripheral granuloma with giant cells (epulis). Ossifying fibrous epulis and traumatic epulis. Inflammatory papillary hyperplasia and focal fibrous hyperplasia. Oro-facial granulomatosis.
	12. ORAL CAVITY PATHOLOGY. Leukoplakia and erythroplasia. Oral cavity cancer: generalities

	(incidence, age, sex, location, etiologic factors). Oral cavity cancer: macroscopy, microscopy, grading, staging. Oral cavity cancer: invasion, metastasis, prognostic. Clinico-pathologic forms of oral cancer.
	13. SALIVARY GLANDS PATHOLOGY. Salivary glands aomalies. Xerostomia. Extravasation mucoceles Retention mucoceles (salivary duct cyst) Inflammatory cystic lesions Lymphoepithelial cyst. Sialolithiasis. Sialosis (sialadenosis). Necrotising sialometaplasia Acute purulent sialadenitis Chronic sclerosing sialadenitis Epidemic parotiditis Glandular cheilitis. Myoepithelial sialadenitis Salivary glands tumors: generalities Pleomorphic adenoma. Warthin tumor. Mucoepidermoid carcinoma. Acinic cell adenocarcinoma Adenoid cystic carcinoma.
	14. OSTEOARTICULAR PATHOLOGY. Agnatia, micrognatia and macrognatia. Torus palatinus and mandibular torus. Exostosis, maxillar clefts and facial hemihypertrophy. Maxillary atrophy (senile, inactivity, compression). Progressive hemifacial atrophy. Osteoradionecrosis. Ricketts, infantile cortical hyperostosis and cherubism. Maxillary bone inflammation: generalities (etiology, infection spread, risk factors, location). Acute and chronic purulent osteomyelitis. Sclerosing chronic osteomyelitis. Chronic osteomyelitis with proliferative periostitis. Dentigerous cyst. Odontogenic keratocyst. Nasopalatine duct cyst. Solitary bone cyst and aneurysmal bone cyst. Ameloblastoma. Odontoma. Condrosarcoma and osteosarcoma. Congenital anomalies of mandibular condyle: aplasia, hypoplasia, hyperplasia. Traumatic dislocation of temporo-mandibular joint (TMJ). Fractures of the mandibular condyle and lesions of the meniscus. Trismus and ankylosis. Infective arthritis of TMJ. Osteoarthritis of TMJ. Rheumatoid arthritis of TMJ.
PRACTICAL ACTIVITIES	
Teaching methods	• Examination of microscopic slides. PowerPoint presentations. • Examination of formalin-fixed organs with different macroscopic lesions. • Participation at autopsies.
Practical activity carried out by students	• Microscopic examination of histopathological slides. Making drawings with the main pathological aspects of the lesions. Describing the macroscopy of lesions, making differential diagnosis.
Content	**1. FLUID AND HEMODYNAMIC DISORDERS** **- Microscopy:** congestion, chronic liver stasis, recent thrombus and the conjunctive organization of the thrombus, cerebral purpura, pulmonary infarction, acute pulmonary edema. **- Macroscopy:** congestion (cerebral, cutaneous), stasis/portal hypertension (liver cirrhosis-collateral circulation, splenomegaly, ascites), chronic liver stasis, cutaneous purpura, echimoses, hematoma (subdural, cerebral, hepatic), hemothorax, hemopericardium,

	thrombosis, thrombembolism, white infarction (renal, cardiac), red infarction (pulmonary, intestinal), edema, hydrothorax, ascites, acute pulmonary edema, Quincke's edema, limphedema.
	2. METABOLIC DISORDERS: ADAPTIVE PROCESSES AND CELLULAR LESIONS. **- Microscopy:** atrophy, hyperplasia, squamous metaplasia, fatty dystrophy of the liver, coagulation necrosis, steatonecrosis **- Macroscopy:** atrophy (cashexia, hydrocephalus, hidronephrosis), hypertrophy (myocardium, urinary bladder), hyperplasia (endometrial, prostate), fatty dystrophy of the liver, gangrene, coagulation necrosis, liquefactive necrosis, steato necrosis, tuberculous necrosis.
	3. METABOLIC DISORDERS: CELLULAR ACCUMULATIONS **- Microscopy:** hyper/para/diskeratosis, amyloidosis, cholesterolosis, lipofuscin, cardiosclerosis, melanin deposits, hemocromatosis. **- Macroscopy:** hepatic cirrhosis, keloid, hairy leucoplakia, renal, cardiac and splenic amyloidosis, lithiasis, hypermelanoses, jaundice.
	4. ACUTE INFLAMMATION AND HEALING - Microscopy: vesicles, pustules, fibrinous pericarditis, lobar pneumonia, myocardial abscess, granulation tissue, purulent meningitis. - Macroscopy: hydrothorax, herpes, lobar pneumonia, bronchopneumonia, purulent peritonitis, pseudomembranous colitis, recent abscesses, hemorrhagic cystitis.
	5. CHRONIC INFLAMMATION **- Microscopy:** Bacterial inflammations: Tuberculosis, Syphilis, Rhinoscleroma, Actinomycosis. Fungal inflammations: Candidiasis. Foreign body granuloma. **- Macroscopy:** primary tuberculosis, military tuberculosis, syphilis, chancre, Hutchinson's teeth, rhinoscleroma, actinomycosis, candidiasis.
	6. TUMORS **- Microscopy** and **macroscopy:** squamous cell carcinoma, basal cell carcinoma, adenoma, adenocarcinoma, hemangioma, leiomyoma, fibrosarcoma, naevi, chondrosarcoma, melanoma, adenomatous polyps.
	7. DENTAL PATHOLOGY **- Microscopy** and **macroscopy:** Disorders of eruption end shedding of teeth. Hypodontia and anodontia. Hyperodontia. Microdontia and macrodontia. Disturbances of the crown and root. Mixed corono-radicular disturbances. Disturbances in the structure of teeth.
	8. DENTAL PATHOLOGY **- Microscopy** and **macroscopy:** Amelogenesis imperfecta. Disturbances of the teeth enamel. Dentinogenesis imperfecta. Dentinal dysplasia and regional odontodysplasia. Inclusions. Ankylosis, transposition and ectopia. Attrition, abrasion and erosion. Dental caries and plaque. External and internal resorbtion. Reversible

	pulpitis. Acute irreversible pulpitis. Chronic pulpitis. Periapical granuloma.
	9. DENTAL PATHOLOGY **- Microscopy** and **macroscopy:** Periodontal apical cyst. Periapical abscess. Gingivitis. Gingival hyperplasia (drug-induced) and gingival fibromatosis. Adult chronic peridontitis. Early peridontitis. Periodontitis from HIV infection and Papillon-Lefevre syndrome. Lateral periodontal abscess and acute pericoronitis.
	10. ORAL CAVITY PATHOLOGY **- Macroscopy:** Malformations of the mouth and lips. Clefts of the lips, palate, face. Malformations of the tongue. Malformations of the oral mucosa. Benign migratory glossitis. **- Macroscopy** and **microscopy:** Catarrhal stomatitis. Serous stomatitis. Aphtous stomatitis. Purulent stomatitis and ulcero-necrotic stomatitis. Tuberculous stomatitis. Oral candidiasis. Celullitis and Ludwig's angina.
	11. ORAL CAVITY PATHOLOGY **- Microscopy** and **macroscopy:** Pyogenic granuloma and peripheral granuloma with giant cells (epulis). Ossifying fibrous epulis and traumatic epulis. Inflammatory papillary hyperplasia and focal fibrous hyperplasia. Oro-facial granulomatosis Leukoplakia and erythroplasia. Forms of oral cancer.
	12. SALIVARY GLAND PATHOLOGY **- Microscopy** and **macroscopy:** Salivary glands anomalies. Xerostomia.) Inflammatory cystic lesions. Lymphoepithelial cyst. Sialolithiasis. Sialosis (sialadenosis). Necrotising sialometaplasia Acute purulent sialadenitis Chronic sclerosing sialadenitis Epidemic parotiditis Glandular. cheilitis.Myoepithelial sialadenitis.Pleomorphic adenoma. Warthin tumor. Mucoepidermoid carcinoma. Acinic cell adenocarcinoma Adenoid cystic carcinoma.
	13. OSTEOARTICULAR PATHOLOGY **- Microscopy** and **macroscopy:** Agnatia, micrognatia and macrognatia. Torus palatinus and mandibular torus. Exostosis, maxillar clefts and facial hemihypertrophy. Maxillary atrophy (senile, inactivity, compression). Progressive hemifacial atrophy. Osteoradionecrosis. Ricketts, infantile cortical hyperostosis and cherubism. Acute and chronic purulent osteomyelitis. Sclerosing chronic osteomyelitis. Chronic osteomyelitis with proliferative periostitis. Dentigerous cyst. Odontogenic keratocyst. Nasopalatine duct cyst. Solitary bone cyst and aneurysmal bone cyst. Ameloblastoma. Odontoma. Condrosarcoma and osteosarcoma. Congenital anomalies of mandibular condyle: aplasia, hypoplasia, hyperplasia. Traumatic dislocation of temporo-mandibular joint (TMJ). Fractures of the mandibular condyle and lesions of the meniscus. Trismus and ankylosis. Infective arthritis of TMJ. Osteoarthritis of TMJ. Rheumatoid arthritis of TMJ.

	14. REVISION Revision of the notions presented in the practical sessions during the semester.
Bibliography	1. The handout of the discipline – actualised yearly. 2. The presentations with images (powerpoint, pdf) elaborated by the discipline of Pathology. 3. Edward W Odell, Cawson's Essentials of Oral Pathology and Oral Medicine, 2017. 4. Robbins Pathologic Basis of Disease, 10th ed. - Cotran, Kumar, and Collins, 2019. 5. http://www.pathologyoutlines.com. 6. http://library.med.utah.edu/WebPath/webpath.html. 7. http://alf3.urz.unibas.ch/pathopic/intro.htm.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**80 %**	**20 %**	**-**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Functional sciences
Discipline	Physiopathology
Cours title	**PHYSIOPATHOLOGY. IMMUNOLOGY**
Responsible for lecture	**Assist. Prof. Dr. Camelia Manuela Mîrza**
Responsible for practical activity	Assist. Prof. Dr. Camelia Manuela Mîrza
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	2	2	28	28	69	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Mandatory presence at 70% of the courses. • Delay of students to the course will not be tolerated. • Mandatory presence at 100% of practical laboratories.

	• Delay of students to practical laboratories will not be tolerated. • Each student must complete the individual portfolio of activity with 14 laboratories.

Professional competences	• To analyze the data and select the necessary tests for the diagnosis of patients with oro-maxillofacial and general disorders. • To be able to interpret the results of the evaluation tests of patients with oro-maxillofacial and general disorders. • To create the pathophysiological map of patients with oro-maxillofacial and general disorders.
Transversal competences	• To acquire the ability to use digital media for medical information • To acquire the ability to present complex topics. • To demonstrate the involvement in the research projects of the Pathophysiology Discipline.
General objectives	• At the end of the semester the students will be able to correctly complete the pathophysiological map of the patients with oro-maxillofacial and general disorders.
Specific objectives	• Identification of the basic pathophysiological mechanisms of patients with oro-maxillofacial and general disorders. • Development of a plan for the evaluation of patients with oro-maxillofacial and general disorders based on the pathophysiological mechanisms. • Correct interpretation of the tests to evaluate the pathophysiological mechanisms of patients with oro-maxillofacial and general disorders.

LECTURES	
Teaching methods	• **Lecture, systematic presentation, conversation** • **Oral and PowerPoint presentations.**
Content	1. Fundamentals theories: disease, cell pathophysiology .
	2. The inflammatory response pathophysiology. The thermoregulatory pathophysiology.
	3. The metabolisms disorders pathophysiology.
	4. The haemostasis disorders pathophysiology.
	5. The red blood cells disorders pathophysiology.
	6. The cardiovascular disorders pathophysiology.
	7. The respiratory disorders pathophysiology.
	8. The digestive tract pathophysiology.
	9. The oral cavity pathophysiology.
	10. The renal pathophysiology.
	11. The endocrine pathophysiology.
	12. The phosphorus and calcium pathophysiology.
	13. The pain pathophysiology.
	14. The pathophysiology of oral manifestation in systemic diseases.

PRACTICAL ACTIVITIES	
Teaching methods	• Oral and PowerPoint presentations, experimental demonstrations, clinical scenarios presentations.
Practical activity carried out by students	• Interpretation clinical scenarios, interpretation of analysis reports, laboratory parameters evaluation.
Content	1. Introduction in experimental pathophysiology.
	2. The response of organism of physical and chemical etiological factors.
	3. Inflammatory diseases diagnosis.
	4. Metabolisms disorders diagnosis.
	5. Haemostasis disorders diagnosis.
	6. Red Blood Cells disorders diagnosis.
	7. Cardiovascular disorders diagnosis.
	8. Respiratory disorders diagnosis.
	9. Digestive tract disorders diagnosis.
	10. Oral cavity disorders diagnosis.
	11. Renal disorders diagnosis.
	12. Endocrine disorders diagnosis.
	13. Nervous system disorders diagnosis.
	14. PBL.
Bibliography	1. Current Pathophysiology Lecture. 2. Huether RN PhD, Sue E., McCance RN PhD, Kathryn L. Understanding Pathophysiology. Mosby, Nov 11, 2019. 3. Camelia Manuela Mirza, Alina Elena Parvu, Adriana Elena Bulboaca, Mihai Blidaru, Florinela Adriana Catoi, Ramona-Niculina Jurcau, Meda Sandra Orasan, Iulia Ioana Morar, Andra-Diana Andreicuț, Iulia Olimpia Pfingstgraf, Paul Mihai Boarescu, Teodora-Irina Bonci, Elisabeta Ioana Chera - Laboratory Study Guide For General And Oro-Maxillo-Facial Pathophysiology. Editura Medicală Universitară "Iuliu Haţieganu", 2019. 4. Juzar Ali, Warren Summer And Michael Levitzky, Pulmonary Pathophysiology: A Clinical Approach, 8th Edition, Lange Medical Book, Mcgraw-Hill Medical, 2019. 5. Hoffbrand Victor, Moss Paul, Essential Haematology, Wiley-Blackwell; 8 Ed., 2019. 6. McCance RN PhD, Kathryn L., Huether RN PhD, Sue E. Pathophysiology: The Biologic Basis for Disease in Adults and Children. Mosby Feb 28, 2018. 7. Norris Tommie L, Lalchandani Rupa.Porth's Pathophysiology: Concepts of Altered Health States. LWW Nov 3, 2018. 8. Gary Hammer, Stephen McPhee. Pathophysiology of Disease: An Introduction to Clinical Medicine 8E 8th Edition, 2018. 9. Camelia Manuela Mîrza, Alina Elena Pârvu, Adriana Elena Bulboacă, Mihai Blidaru, Carmen Angela Sfrângeu, Florinela Adriana Cătoi – Fiziopatologie pentru medicină dentară. Editura

	Medicală Universitară "Iuliu Haţieganu", 2018. 10. West John B., Pulmonary Pathophysiology: The Essentials Lippincott Williams & Wilkins; 10th Ed., 2017. 11. Bunn howard franklin, aster jon c., pathophysiology of blood disorders, lange medical books, mcgraw-hill medical, 2nd ed., 2016. 12. J. Gill j. Dental caries: the disease and its clinical management, third edition. British dental journal, 2016. 13. Silbernagl Stefan, Lang Florian, Color Atlas Of Pathophysiology, Thieme, 2011. 14. Bulboaca Adriana, Parvu Alina Elena, Pathophysiology For Dental Medicine, Echinox, Cluj Napoca, 2009.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**30%**	**10%**

Institution for graduate and postgraduate studies			University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca						
Faculty			Dental Medicine						
Domain of study			Health						
Academic degree			Dental Medicine in English						
Level of course			I and II- License and masters						
Qualification			Doctor of Dental Medicine						
Department			3 Molecular sciences						
Discipline			Microbiology						
Cours title			**MICROBIOLOGY (BACTERIOLOGY. VIRUSOLOGY. PARASITOLOGY)**						
Responsible for lecture			**Assoc. Prof. Dr. Carmen COSTACHE, MD, PhD**						
Responsible for practical activity			Assist. Dr. Mădălina Bordea Assist. Dr. Alina Baciu						
The formative category of the discipline			DF						
Compulsory discipline			Compulsory						
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic biology. • Working with the light microscope.
Requisites for lectures and practical activities	• Respecting the academic rules for the participation to lectures • Respecting the rules for a microbiology laboratory (wearing a white robe, protective gloves when necessary, etc.)

Professional competences	• Involvement in educating the population on the impact of micro-organisms (including human microbiocenosis) on health. • Knowledge about microorganisms: bacteria, viruses, parasites and fungi producing human pathology particularly in oral cavity and sinuses. • Knowledge of medical terminology. • Understand the relationship between microorganisms and the human body, ways of transmission and production of infectious diseases to participate in prevention of pathology associated with dental practice. • Understand and apply the necessary measures to prevent nosocomial infections.
Transversal competences	• Developing complex professional tasks. • Identify objectives to be achieved, the resources available, the conditions for completion of their work progress, working time, deadlines and risks related to the execution of professional duties. • Identify roles and responsibilities in a multidisciplinary team of networking and application techniques. • Effective work and longitudinal feedback within a team. • Effective use of information sources and communication resources (Internet portals, specialized software applications, databases, online courses etc.) to ensure continuous personal and professional development.
General objectives	• Acquiring the basics of medical microbiology. • Study of the microorganisms (bacteria, viruses, parasites, fungi) . • Knowledge and correct use of microbiology concepts related to contamination with infectious agents and their transmission to humans to initiate an infectious process. • The importance of microorganisms as etiologic agents of various infectious clinical entities: respiratory tract infections, genitourinary tract infections, skin and CNS infections (meningitis, encephalitis). • Knowledge of the bacterial, viral, parasitic and fungal virulence factors to understand their role in human pathology.
Specific objectives	• Acquisition of theoretical and practical knowledge on infectious agents and their possibilities of human contamination. • Knowledge of an infectious process and how it is diagnosed. Interpretation of microbiological analysis bulletins. • Preparing students to perform minimum laboratory techniques needed for a medical dentist. • Understand the reasons and mechanisms underlying the choice of a particular protocol work. • Familiarization with the directions of research in microbiolog. • Exercise synthesis and bibliographic documentation capacity.

LECTURES

Teaching methods	**Lectures, systematic exposure, conversation** **Oral exposure coupled with PPT**
Content	1. Microorganisms world: definition, properties.
	2. Classification of medical important bacteria (phylogenetic, biohazard groups).
	3. Bacterial morphology and function.
	4. Importance of morphology for differentiation and identification of the bacteria.
	5. Bacterial metabolism: effect of environmental factors on bacteria, development curve.
	6. Bacteria nutritional and energetic requirements.
	7. Bacterial genetics (evolution and adaptation in the bacterial world).
	8. Microbial world and the human host. Normal flora and microbiota. Commensalism, Opportunism, Pathogenicity.
	9. Infection and pathogenicity; determinants of pathogenicity.
	10. Exotoxins and endotoxins, adhesion factors. Examples from oral pathology.
	11. Main bacteria producing human disease.
	12. Defense mechanisms against microbial infections.
	13. The microbiology of antibacterial chemotherapy. Definition, Antibacterial spectrum, resistance phenotype, S I R concept. Antibiotic families, mechanisms of action.
	14. Spreading of antibiotic resistance and pathogenic genes in the bacterial world. Natural/chromosomal resistance. Acquired resistance. Multiple resistance, selection of hospital strains.
PRACTICAL ACTIVITIES	
Teaching methods	• Conversation, demonstration, performing.
Practical activity carried out by students	• Sterilization methods. • Collection of pharyngeal swab. • Gram stained smear. • Inoculation of culture media. • TPHA/other antigen-antibody technique. • Disk diffusion susceptibility testing. • Interpretation of laboratory assays.
Content	1. Sterilization and disinfection.
	2. Sample collection.
	3. Microscopic preparation (wet smear, stained smear): principles, techniques, information) Stainings: Gram
	4. Stainings: Ziehl-Nielsen (principle, techniques), special stainings (enumeration-examples).
	5. Culture media (definition, classification, examples). Inoculation techniques. Cultural characteristics used in identification.
	6. Laboratory diagnostic scheme for the infection disease .
	7. Antigen antibody reaction (principles, examples, interpretation).

	8. Antibiotic susceptibility testing and interpretation.		
	9. Infections produced by Gram positive cocci (streptococci, staphylococci) – laboratory diagnosis.		
	10. Infections produced by Gram negative cocci and cocobacilli (*Neisseria, Haemophylus, Bordetella*).		
	11. Infections produced by Gram positive bacilli (*Bacillus, Clostridium*) and Mycobacterium.		
	12. Infections produced by Gram negative bacilli (enterics, *Pseudomonas, H.pylori*).		
	13. Infections produced by spirochetes.		
	14. Practical examination.		
Bibliography	1. George F. Brooks, Janet S. Butel, Stephen A. Morse, Joseph L. Melnick, Ernest Jawetz, Edward A. Adelberg- Jawetz, Melnik Adelberg's Medical Microbiology – 26-th edition, McGraw-Hill Professional Ed., 2013. 2. Monica Junie, Carmen Costache (Translation). Basic Bacteriology and Virology. Editura Medicală Universitară. „Iuliu Haţieganu" Cluj-Napoca, 2011. 3. Carmen Costache, Lia Monica Junie, Ioana Colosi. Medical bacteriology and medical virology**.** Editura Medicală Universitară "Iuliu Haţieganu", Cluj Napoca, 2017. 4. Carmen A.Costache, Ioana A.Colosi, Madalina A. Bordea. Laboratory works for Microbiology. Editura Medicală Universitară "Iuliu Haţieganu", Cluj Napoca, 2019.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**15%**	**15%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthodontics and Dental materials
Discipline	Dental Propedeutics and Esthetics
Cours title	**MORPHOLOGY OF TEETH AND DENTAL ARCHES**
Responsible for lecture	**Lecturer Dr. Alexandra Botoș**
Responsible for practical activity	**Lecturer** Dr. Alexandra Botoș Teaching Assistant Dr. Amelia Boitor
The formative category of the discipline	DS

Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Morphology and function of the dento-maxillary system, Anatomy of the head. • Physiology of the oro-facial system. • Histology of head and neck structures.
Requisites for lectures and practical activities	• 70% of the hours- Compulsory attendance. • Lecture hall with multi-media system for projection • 100% compulsory attendance. • Simulation rooms with phantom heads for each student. • Examination rooms with specific equipment (dental unit, dental examination equipment). • Portfolio with examination charts, filled in according to the curriculum.

Professional competences	• The ability to correctly use the professional language in the domain of dental morphology. • Knowledge of stages of dental examination. • Knowledge of techniques of dental examination. • Recognition of normal and pathological aspects of the dentomaxillary system within exo- and endooral examination. • The capacity of integration of dental examination stages within the general patient examination. • Ability to fill in and use the dental chart. • Asimilation of specific terminology used in the dental and maxillo-facial examination. • Abilities in performing practical activities, based on examination charts and appointment sheets.
Transversal competences	• Ability to use the information in a new context. • Ability to apply the theoretical knowledge on a practical basis. • Ability to establish connection between the studied subjects.
General objectives	• The students should understand and be able to use the information provided in clinical communication. • Students should also be able to use the knowledge acquired in a clinical examination in dentistry, the main goal being able to assess normal and pathological elements in the maxilla-facial area.
Specific objectives	• Knowledge of the stages of examination in dentistry. • Knowledge of examination techniques used in dentistry. • Ability to recognize normal and pathological aspects of the dento-maxillary system.

	• Assimilation of general clinical examination knowledge and the ability to correlate them with the health status of the maxilla-facial • Knowledge and use of the dental chart. • Knowledge of general categories of signs and symptoms that characterize normal and pathological aspects of the structures of the dento-maxillary system. • Gain of the practical experience necessary to use the examination instruments in dentistry.

LECTURES	
Teaching methods	• **PPT presentations** • **Interactive discussions**
Content	1. Patient general information, patient history, history of the current disease, psychological profile of the patient, bad habits, clinical general examination.
	2. Perioral examination through frontal face inspection, perioral examination through lateral face inspection.
	3. Perioral examination through palpation- teguments, muscle groups, lymph nodes, bone contours, nerve emergence points.
	4. Examination of the temporomandibular joint, examination of the amplitude and trajectory of the opening of the mouth.
	5. Evaluation of oral hygiene. Examination of fixed and attached mucosa.
	6. Examination of salivary glands, hard and soft palate, floor of the mouth. Examination of the alveolar ridges and maxillary tuberosities.
	7. Examination of the dental arches – shape, occlusion curves, frontal curvature, occlusal contacts. The dental chart.
	8. Examination of the teeth. Dental lesions with lack of tooth structure: caries, fractures, erosions, abrasions, abfractions.
	9. Examination of the teeth. Dental lesions without lack of tooth structure: number, volume, shape, colour anomalies.
	10. Examination of the dental restorations. Classification of the edentulous arches according to Kennedy and Costa.
	11. Single tooth position changes, group position changes.
	12. Static occlusal intermaxillary relationship - ideal and pathological.
	13. Dynamic movements of the mandible – ideal and pathological.
	14. Examination of the periodontium.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive exercises, practical demonstrations on phantom head and on patient, evaluation and discussions on case pictures.
Practical activity carried	• Application of questionnaires in small work groups, performing of examination techniques on a phantom head, interactive exercises

out by students	practicing examination techniques on patients, evaluation of study casts, evaluation and discussions on case pictures.
Content	1. Introduction to the examination techniques used in dentistry. Presentation of the dental office and the sterilization chamber, sterilization circuit, the examination kit.
	2. Patient history. History of the current disease. Personal and family history, general and local. The reason for seeing the dentist.
	3. Perioral examination through frontal and lateral face inspection.
	4. Perioral examination through palpation.
	5. Evaluation of the temporomandibular joint.
	6. Revision of the exooral patient examination.
	7. The examination of the oral mucosa, examination of the tongue, of the dental ridges and of the hard palate. The dental chart.
	8. The examination of the dental arches – lesions with and without lack of dental structure.
	9. Classification of edentulous maxillary and mandibular arches according to Kennedy and Costa.
	10. Dental examination – single tooth position modifications. Group position modifications.
	11. Evaluation of static occlusal intermaxillary relationship.
	12. Evaluation of dynamic movements of the mandible.
	13. Periodontal evaluation.
	14. Revision of endooral examination.
Bibliography	1. Botoș A, Lecture script Morphology of Teeth and Dental Arches, 2021-2022. 2. Botoș A, Dudea D, Aghiorghiesei A, Mesaroș A. Oral Semiology. Practical Activity Book. Editura Medicală Universitară ”Iuliu Haţieganu” Cluj-Napoca, 2019. 3. Brandt R.W., Isselhard D.E.- Anatomy of Orofacial Structures, a comprehensive approach. 8th edition. Elsevier. 2018. 4. Berkovitz B, Moxham B, Linden R, Sloan A. Master Dentistry Vol. Three. Oral Biology. Churchill Livingstone Elsevier. 2011 5. Dawson PE. Functional Occlusion. From TMJ to Smile Design. Mosby Elsevier. St. Louis. 2007. 6. Netter’s Head and Neck Anatomy for Dentistry. Neil S. Norton. Elsevier Saunders. 2nd Edition. Philadelphia, 2012. 7. Nelson S. Wheeler’s Dental Anatomy, Physiology and Occlusion. 11th edition. Elsevier 2020. 8. Okeson JP. Management of Temporomandibular disorders and occlusion. Elsevier. 8th Edition. St. Louis 2020. 9. Rosen E, Nemcovsky C, Tsesis I. Evidence-Based Decision Making in Dentistry. Springer 2017. 10. Scheid RC, Weiss G. Woelfel’s Dental Anatomy, Enhanced 9th Edition. Jones and Bartlett Publishers 2020. 11. Stefanac S, Nesbit S. Diagnosis and Treatment planning in Dentistry. 3rd Edition. Elsevier, 2017.

	12. Terezhalmy GT, Huber MA, Jones AC. Physical Evaluation in Dental Practice. Wiley-Blackwell, 2009. 13. Wilson N, Dunne S. Clinical Procedures in Dentistry. Wiley Blackwell, 2018.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	**25%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Health
Cours title	**ETHICS AND INTEGRITY IN ACADEMIA**
Responsible for lecture	**Assoc. Prof. Maria Aluaș**
Responsible for practical activity	-
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Adequate level of understanding, conversation, speaking, and writing in English.
Requisites for lectures and practical activities	• Students will keep them off GSM. During the course, phone calls are not allowed. Students cannot leave the amphitheater to the reason of personal phone calls. • It is not allowed to eat during class sessions consumption of food and drinks is prohibited. • Students must respect timetables; the late arrival to activities is prohibited, as this will disturb the working sessions.

Professional competences	• Being able to use correctly, in the appropriate context, the specific terminolog. • Being able to frame ethical and integrity issues in the medical and

	health context. • Identify the negative consequences that can raise from the misconduct and misbehavior practices. • Being able to use efficient sources of information and distinguish official information other information found on the internet.
Transversal competences	• Having the ability to use the concepts learned in new contexts. • To optimize creatively their potential in the scientific and research activities in which they are involved. • To have the ability to identify the consequences of the presented topics in personal and professional life. • To show concern for identifying solutions and arguments in favor of proposed solutions. • To justify the decisions, they would make in such situations. • Demonstrate the ability to use digital media and reference documents for information purposes to solve ethical and academic integrity issues.
General objectives	• At the end of the semester, students will acquire skills that make them able to identify and contextualize an ethical and integrity issue and, to be aware about consequences of such practices for the profession of dentist and researcher.
Specific objectives	• At the end of the semester, students will be able to: • Distinguish between describe and evaluate a concrete situation and delineate the ethical and integrity issues from other types of frauds. • To problematize and analyze the presented cases and situations. • Identify solutions or possibilities to avoid such situations.

LECTURES	
Teaching methods	• **Exhibition of knowledge according to the proposed themes, stimulating interactivity; illustration by clinical cases; use of multimedia.** • **Oral presentation (lecture), with multimedia support (Powerpoint, doubled images / movies).**
Content	1. Introductory course. Conceptual definitions and boundaries: What does ethics and academic integrity mean?
	2. The causes and cases that led to the emergence of this new discipline: Jon Studbo, Eric Poehlman, Andrew Wakelfied.
	3. Forms of facts that can be classified as misconduct in the academic environment: data falsification, fabrication, plagiarism, other frauds.
	4. Data fabrication: causes and consequences.
	5. Data falsification: causes and consequences.
	6. Plagiarism: causes and consequences.
	7. Conflict of interests: definition, causes, consequences.
	8. Data protection. The concept of privacy and confidentiality.
	9. Intellectual property rights: copyright and patents.

	10. Legal regulations regarding Misconduct practices.		
	11. European Code of Research Integrity.		
	12. Sanctions applied to acts of misconduct: academic, disciplinary, legal sanctions.		
	13. Solutions: education, methodological skills, change of policies.		
	14. Science and professional responsibility.		
Bibliography	1. All European Academies, The European Code of Conduct for Research Integrity. Revised Edition, Berlin 2017. 2. The Embassy of Good Science Plarform (2020), https://embassy.science/wiki/Main_Page. 3. PRINTEGER (2016). Documents and Results. https://printeger.eu/documents-results/. Accessed 20-06-2019. 4. A.Shamoo, D. Resnik, Responsible Conduct of Research, 3rd ed. Oxford University Press, 2015. 5. PateJ. New COPE guidelines on publication process manipulation: why they matter. Research Integrity and Peer Review2018;3:13. Doi: 10.1186/s41073-018-0059-xNogueira TE, Gonçalves AS, Leles CR. 6. Batista AC, Costa LR. A survey of retracted articles in dentistry.BMC Res Notes. 2017 Jul 6;10(1):253. doi: 10.1186/s13104-017-2576-y. 7. Faggion CM Jr, Ware RS, Bakas N, Wasiak J.An analysis of retractions of dental publications.J Dent. 2018 Dec;79:19-23. doi: 10.1016/j.jdent.2018.09.002. 8. Steen, R. G. (2011). Retractions in the scientific literature: Do authors deliberately commit research fraud? Journal of Medical Ethics, 37(2), 113–117. 9. Schatten: Pitt Panel Finds 'Misbehavior' but Not Misconduct. University Panel Faults Cloning Co-Author, By NICHOLAS WADE. 10. Nogueira TE, Gonçalves AS, Leles CR, Batista AC, Costa LR. A survey of retracted articles in dentistry.BMC Res Notes. 2017 Jul 6;10(1):253. doi: 10.1186/s13104-017-2576-y. 11. Erica R Pryor, Barbara Habermann, Marion E Broome. Scientific misconduct from the perspective of research coordinators: a national survey. J Med Ethics 2007;33:365–369. doi: 10.1136/jme.2006.016394. 12. Sorana D. Bolboacă, Diana-Victoria Buhai, Maria Aluaș, Adriana E. Bulboacă, Post retraction citations among manuscripts reporting a radiology-imaging diagnostic method. PLoS ONE 14 (6), 2019. 13. Sorin Hostiuc, Oana Isailă, Maria Aluaș, Authorship Criteria for Scientific Articles. In "Journal of Intercultural Management and Ethics", Nr. 2/2019.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**

Percent of the final grade:	**70%**	**0%**	**30%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Molecular sciences
Discipline	Medical genetics
Cours title	**GENETICS**
Responsible for lecture	**Lecturer Dr.Catana Andreea**
Responsible for practical activity	Lecturer Dr. Catana Andreea Lecturer Dronca Eleonora, MD, PhD Lecturer Cornean Rodica, MD, PhD Assistant professor Crișan Tania Octavia, MD, PhD
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Amphitheatre with visual projection system and Internet acces. • Practical activities in designated student classrooms with video projection system and Internet access. • Cytogenetic and molecular genetics laboratories.

Professional competences	• The ability to use specialized terminology appropriately and in context. • Understanding and operating with notions of structural and functional genetics and genomics. • The use of fundamental notions of genetics as a basis for the specific approach to genetic pathology in current medical activity. • The ability to recognize and adequately use the phenotype elements of some genetic diseases to achieve the correct diagnosis and prophylaxis.

	• The ability to know and correctly use the necessary genetic tests in the context of gene pathology. • The ability to use and adequately perform elements of individual and family genetic consultation and counseling in the context of congenital anomalies or diseases/syndromes with dentofacial damage. • The ability to recognize and use the basic principles of ethics about genetic pathology.
Transversal competences	• The use of assimilated notions in new contexts. • The application of theoretical notions of genetics and genomics in practical medical activity. We are establishing interdisciplinary correlations within the studied fields.
General objectives	• Understanding fundamental genetics necessary for clinical practice • Understanding the laws of heredity and variability in normal and pathological dental-maxillofacial development. • Understanding basic elements of genetic pathology useful and necessary in medical practice.
Specific objectives	• Understanding the basic concepts of genetics and the mechanisms underlying the transmission of normal and pathological traits. • Understanding the mechanisms underlying the various chromosomal or monogenic syndromes affecting the craniofacial region and those involved in congenital dental-maxillofacial anomalies. • Understanding and applying elements of diagnosis, genetic counseling and prevention of genetic diseases, particularly for dental-maxillofacial pathology.

LECTURES	
Teaching methods	• **Oral presentations, systematic, interactive presentation (PPT support)**
Content	1. Introduction to Genetics. The Human Genome.
	2. Genes and gene structure.
	3. Genes, mutations, and transmission of hereditary information.
	4. Autosomal dominant and recessive patterns of inheritance.
	5. Gonosomal dominant and recessive patterns of inheritance.
	6. Variability of genetic information. Mutations. Mechanisms and Classification.
	7. Variability of genetic information. Mutations. Effects on the phenotype.
	8. Chromosomal anomalies. Mechanisms of numerical chromosome anomalies.
	9. Chromosomal anomalies. Mechanisms of structural chromosome anomalies.
	10. The mitochondrial genome. Mechanisms involved in mitochondrial

	disorders.
	11. The mitochondrial genome and mitochondrial pathologies. Specific mutations and mitochondrial disorders.
	12. Congenital anomalies. Classification and causes of congenital anomalies.
	13. Congenital anomalies. Teratology.
	14. Prophylaxis principles in dental disorders and congenital anomalies.
PRACTICAL ACTIVITIES	
Teaching methods	• Oral presentations, interactive methods and Case Report anaysis (PPT support).
Practical activity carried out by students	• Interpretation of chromosome and molecular analysis in context of oral health disorders. • Genetic counseling in genetic disorders related to inheritable oro-facial and dental disorders. • Case presentation.
Content	1. Introduction, chromosomal morphology, international classification of human chromosomes, criteria for classification of human chromosomes, chromosomal heteromorphisms.
	2. Indications for prenatal genetic diagnosis.
	3. Indications for post-natal genetic diagnosis.
	4. Chromosome disorders. Trisomy 21.
	5. Chromosome disorders. Trisomy 18 and 13.
	6. Heterosomal aneuploidies. Genetics and phenotype.
	7. Genetic counseling. Pedigree analysis.
	8. Cranio-facial anomalies, monogenic syndromes of the face and skull.
	9. Cranio-facial anomalies, monogenic syndromes of the soft tissues involving the face.
	10. Genetic component of numerical dental anomalies (oligodontia and hyperdontia).
	11. Genetic component of structural dental anomalies (micro and macrodontia).
	12. Hereditary dental dystrophies. Amelogenesis imperfecta.
	13. Hereditary dental dystrophies. Dentinogenesis imperfecta.
	14. Acquired information assessment.
Bibliography	1. Genetica medicala. Curs pentru studentii anului II Medicina. Coordonator Profesor Univ. Dr. Ioan V. Pop, Ed. medicala universitara “Iuliu Hatieganu”, Cluj-Napoca, 2013 (English version). 2. Genetica medicala. Indrumator de lucrari pentru studentii anului II Medicina dentara, Coordonator Profesor Univ. Dr. Ioan V. Pop, Ed. medicala universitara “Iuliu Hatieganu”, Cluj-Napoca, 2012 (English version). 3. Thompson & Thompson Genetics in Medicine, 8th EditionRobert Nussbaum Roderick McInnes Huntington Willard, Elsevier, 2015. 4. www.orphanet.com. 5. www.omim.com.

	6. www.pharmgkb.com. 7. www.ensembl.org.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**66,67%**	**33,33%**	**-**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				12 Medical education					
Discipline				Medical psychology					
Cours title				**MEDICAL PSYCHOLOGY**					
Responsible for lecture				**Lecturer Dana-Cristina Herța, MD, PhD**					
Responsible for practical activity				Lecturer Dana-Cristina Herța, MD, PhD Vacant 9 Teaching Assistant					
The formative category of the discipline				DC					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	1	1	14	14	22	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Behavioral Sciences. • Medical Communication. • Knowledge and understanding of psychological terminology.
Requisites for lectures and practical activities	• Attendance: at least 75% (11 of 14) of lectures. • No mobile phones. • Eating and drinking are not allowed. • Tardiness will not be accepted. • Compulsory attendance in all practical works. • Completing the portfolio.

Professional competences	• The management of bio-psycho-social implications of medical interventions. • Identification and correction of risk-taking behaviors. • Medical counselling abilities.
Transversal	• Critical analysis of reactions and behaviors of sick persons.

competences	• Efficient communication with and counselling persons going through special circumstances. • Emotional intelligence: empathy, constructive management of emotions. • Critical thinking.
General objectives	• Acquisition of necessary knowledge, attitudes, and skills for the proper management of the psychological implications of medical practice.
Specific objectives	• Acquisition of necessary knowledge, attitudes, and skills for choosing and implementing the adequate model of the doctor-patient relationship. • Acquisition of necessary knowledge, attitudes, and skills for the correct evaluation of the patient's reaction to illness and for facilitating the adoption of a correct patient role. • Acquisition of necessary knowledge, attitudes, and skills for the correct psychological management of patients during the diagnostic process. • Acquisition of necessary knowledge, attitudes, and skills for ensuring adherence to treatment. • Acquisition of necessary knowledge, attitudes, and skills for facilitating the adoption of healthy lifestyles. • Acquisition of necessary knowledge, attitudes, and skills for efficient stress and crisis management. • Acquisition of necessary knowledge, attitudes, and skills for the correct psychological management of terminally ill patients.

LECTURES	
Teaching methods	• Lecture. • Demonstration. • Debate. • Problem solving. • Heuristic conversation. • Case study.
Content	1. Introduction – Mental processes. - Introduction. o The general objective of the discipline. o Specific objectives of the discipline. o Course content. o Conditions for participation. o Evaluation process. - Mental processes. o Definition. o Classification. - The human cognitive system.
	2. Bio-psycho-typology.

	- Short history. - The type of behavior concept. - Type A, B, C and D behaviors.
	3. Normal-Abnormal. Health-Disease. - Criteria for normality. - Criteria for abnormality. - Definition of health. - Explicative models of disease. - Mental representation of disease.
	4. The doctor-patient relationship. - Patient's statute and role. - Doctor's statute and role. - Models of the doctor-patient relationship. - Customization of the doctor-patient relationship in accordance with the context and patient's personality.
	5. Stress – Health – Disease. - Definition. o Stressors. ▪ Definition. ▪ Classification. ▪ Evaluation. o Reactions to stress (somatic and psychological). o Stress mediators. ▪ Support network. ▪ Defense mechanisms. ▪ Coping mechanisms. - The relationship between stress and disease. o Fundamentals of psycho-somatic medicine. o The relationship between stress and mental disorders.
	6. Crisis and crisis intervention. - Definition of crisis. - Types of crises. - The evolution of a situational crisis. - The evolution of a catastrophic crisis. - Principles of crisis intervention. - Means for crisis intervention. - Stages of crisis intervention.
	7. Suicide. - Definitions. - Epidemiology. - The suicidal process. - Suicide risk assessment. - Strategies for the prevention of suicidal behavior.
	8. Thanato-psychology. - The concept of death in medicine and society. - The stages of dying.

	- Medical and legal criteria for declaring cerebral death and death. - Main causes of mortality. - The psychological reaction to being diagnosed with a terminal illness. - Psychological assistance for terminally ill patients. - Bereavement .
	9. Psychology of pain. - Definition of pain. - Acute vs. chronic pain. - Theoretical models of pain. - Pain management. - Placebo and nocebo effects. o Definitions. o Factors .
	10. Iatrogenies. - The concept of iatrogenic conditions. - Pharmacological iatrogenies. - Investigation iatrogenies. - Relational iatrogenies. - Hospital iatrogenies.
	11. Compliance and adherence to treatment. - Definitions. - Factors that influence therapeutic compliance. - Evaluation of compliance. - Main non-compliance situations. - Methods for increasing compliance.
	12. Empathy. - Definitions. - The components of the empathic attitude. - Clinical empathy. - Principles of empathic communication. - Main errors in establishing an empathetic relationship between doctor and patients.
	13. Health psychology. - Introduction to health psychoclogy. - Healthy eating. - Psychoactive substance use. - Sexual risk-taking behavior. - Healthy lifestyle. - Resilience. o Definition. o Characteristics of resilient persons.
	14. Fundamentals in psychotherapy. • Classification of psychotherapeutic methods. • Psychodynamic psychotherapies. • Behavioral psychotherapies.

	• Cognitive psychotherapies.
	• Humanistic psychotherapies. Techniques for counselling.
	• Applications of psychotherapies in medical practice.
	  o Medical counselling.
	  o Transferential relationships.

PRACTICAL ACTIVITIES	
Teaching methods	• Demonstration. • Exercise. • Conversation. • Problem-solving. • Case studies. • Roleplay.
Practical activity carried out by students	• Observation of patient evaluation. • Exercise mental processes evaluation. • Exercise of personality assessment. • Roleplay for developing an adequate mental representation of disease. • Roleplay for relationship building with difficult patients. • Case study debates. • Evaluation of a patient. • Stress self-assessment. • Exercise on evaluating stress in another person. • Roleplay on crisis intervention. • Roleplay for building empathic relationships. • Evaluation of iatrogenies in a patient. • Evaluation of compliance to treatment of a patient.
Content	1. Evaluation of mental processes.
	2. Personality assessment interviews.
	3. The role of the doctor in building a correct mental representation of disease.
	4. The bio-psycho-social model in medicine.
	5. Adapting the doctor-patient relationship to difficult patients: anxious and phobic patients.
	6. Adapting the doctor-patient relationship to difficult patients: obsessional and paranoid patients.
	7. Adapting the doctor-patient relationship to difficult patients: depressive and histrionic patients.
	8. Adapting the doctor-patient relationship to difficult patients: aggressive and detained/arrested patients.
	9. Evaluation of stress. Management of the burnout syndrome.
	10. Crisis intervention for suicide prevention.
	11. Bereavement.
	12. Therapeutic iatrogenies.
	13. Evaluation of compliance to treatment.
	14. Empathic relationships.

Bibliography	1. Cozman D, Nemeș B. Medical Psychology. Cluj-Napoca: Presa Universitară Clujeană; 2014. ISBN 978-973-595-651-6. 2. Coman H, Nemeș B. Behavioral Sciences. Cluj-Napoca: Presa Universitară Clujeană; 2014. ISBN 978-973-595-652-3. 3. Cosman D. Suicidology. Cluj-Napoca: Presa Universitară Clujeană; 2013. ISBN 978-973-595-601-1. 4. Cosman D. Psihologie medicală. Iași: Ed. Polirom; 2010. ISBN 978-973-46-1735-1. 5. Fadem B. High-Yeld Behavioral Science. 2nd ed. Baltimore: Lippincott Williams & Wilkins; 2001. ISBN 0-7817-3084-8.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	**25%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca								
Faculty	Dental Medicine								
Domain of study	Health								
Academic degree	Dental Medicine in English								
Level of course	I and II- License and masters								
Qualification	Doctor of Dental Medicine								
Department	4 Prosthetic Dentistry and Dental materials								
Discipline	Dental Propaedeutics and esthetics								
Cours title	**DENTAL TECHNOLOGY**								
Responsible for lecture	**Lecturer Dr. Cristina Gasparik**								
Responsible for practical activity	Sef. Lucr. Dr. Cristina Gasparik Sef lucr. Dr. Alexandru Grecu Asist. Univ. dr. Delia Moise Asist. Univ. dr. Amelia Boitor								
The formative category of the discipline	DS								
Compulsory discipline	Compulsory								
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	2	4	28	56	66	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic notions of Anatomy, Dental Morphology, Dental Materials • Ability to identify anatomic parts of the head and face, practical skills for reproduction of tooth morphology using dental materials.
Requisites for lectures and	• Attendance – minimum 70% of lectures. • Attendance – 100% of practical activities.

practical activities	• Laboratory coat and scrubs. • Completion of required tasks.

Professional competences	• Ability to use specialized terminology, properly and in context. • Accumulation of basic knowledge related to fixed dentures. • Knowledge of technological steps that are used in the dental office and dental laboratory in manufacturing fixed dental prostheses (cast metal crowns, porcelain fused to metal crowns, all-ceramic crowns, composite resin crowns). • Acquiring general principles in making fixed partial dentures (FPD). The fabrication technology in metal-ceramic FPDs by casting-sintering processes, heat-pressing processes, computerized milling. • Knowledge of current variants for manufacturing ceramic bridges CAD CAM technique, heat-pressing, and combined methods.
Transversal competences	• Ability to use the information in a new context. • Ability to apply the theoretical knowledge on a practical basis. • Ability to establish connection between the studied subjects.
General objectives	• Acquiring information related to specific technological processes involved in the fabrication of the most common types of fixed dentures.
Specific objectives	• Accumulation of basic knowledge related to the classification of fixed dentures. • Introduction to specific preparations for various types of fixed prosthesis in relation with the fabrication technology. • Acquiring information regarding general steps in the fabrication of cast metal crowns, mixed crowns, esthetic crowns. • Understanding the biomechanical, bio functional and prophylactic principles in making each type of denture.

LECTURES	
Teaching methods	• **Lecture, Systematic and interactive presentation, Inquiry-based learning, Oral presentation, PowerPoint and video presentations.**
Content	1. Introduction into prosthodontics and technology: classification of fixed and removable dentures; types of restorations by fabrication technology and materials used; laboratory steps in the fabrication of an indirect restoration.
	2. Preliminary data needed for dentures fabrication: preparation of dental substrate for full coverage restorations. Particularities in the tooth preparation for a cast metal crown and a metal-ceramic crown.
	3. Dental impressions in fixed prosthodontics, requirements, materials, techniques, advantages, and disadvantages; the alginate impression; the impression of the working arch; the bite registration. Verification of the impression.
	4. Casts in fixed prosthodontics: requirements of materials used for

	dental casts, types of casts; the diagnostic cast, the master cast; casts with removable dies- the Pindex method; the Zeiser method; the Willi Geller dental cast.
	5. Articulators – types and characteristics; face bows; mounting of the casts on a semi-adjustable articulator; mounting of the casts on a fully-adjustable articulator.
	6. Wax pattern fabrication for metal restorations; requirements of materials used for patterns, waxing techniques, characteristics of wax patterns.
	7. Preparation of the wax pattern for investing; investing the wax pattern, burnout and casting the metal alloys: casting machines, principles; cleaning the cast. Defects in the casting, causes and remedies. Finishing the cast restoration.
	8. The metal-ceramic crown – laboratory steps; characteristics of the metal coping, preparation of the coping for the ceramic layering; ceramic layering concepts and techniques.
	9. The full-ceramic crown – classification of ceramic appliances by material and fabrication technology; monolithic crowns, veneered crowns; the refractory die technique; the heat press technique, the cad-cam technique; combined methods.
	10. The composite resin crowns - laboratory steps; composite layering concepts and techniques.
	11. Inlays, onlays, veneers, post, and core restorations – laboratory steps, materials, techniques.
	12. The fixed partial denture – classification of the partially edentulous arches, general principles in the fabrication of fixed partial dentures.
	13. The metal-ceramic bridge –laboratory steps; particularities of the metal framework, veneering techniques.
	14. The full-ceramic bridge –laboratory steps; particularities of the framework, veneering techniques; the monolithic bridge.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive presentations, live and video demonstrations, inquiry-based learning, flipped classroom, role-play.
Practical activity carried out by students	• 3 tooth preparations for metal and metal-ceramic crowns (MC), 3 wax patterns of the metal coping for MC crowns, 1 wax pattern for cast metal crown, 1 wax pattern for full ceramic heat-pressed crown, 2 wax patterns for inlays and onlays, 1 wax pattern for full ceramic heat-pressed bridge, 1 wax pattern for the metal framework of a MC bridge.
Content	1. Technological steps for full coverage restorations. Instruction on the use of the dental simulation unit; exercises for the use of the high-speed hand piece.
	2. Preparation of dental substrate for full coverage restorations – the metal crown- objectives and technical steps. Information needed for the laboratory.
	3. Preparation of dental substrate for full coverage restorations – the

	metal-ceramic crown -objectives and technical steps. Information needed for the laboratory.		
	4. Making of an alginate impression of the dental arch; making a silicone impression.		
	5. Pouring an impression in plaster – the solid cast; making a master cast – the Willi Geller dental cast; mounting of the casts on an articulator.		
	6. Waxing techniques – the functional waxing; revision.		
	7. Fabrication of a wax pattern for the metal crown.		
	8. Fabrication of a wax pattern for the metal-ceramic crown; Preparation of the wax pattern for investing; investing and casting; finishing of the restoration – demonstration.		
	9. Fabrication of a wax pattern for the full-ceramic crown (for the heat-press technique).		
	10. Fabrication of wax patterns for inlays, onlays; Ceramic layering; heat-pressing of ceramic – demonstration.		
	11. Fabrication of a wax pattern for the metal framework of a metal-ceramic bridge.		
	12. Fabrication of a wax pattern for a full-ceramic bridge (heat-press technique) – pontic designs.		
	13. Fabrication of a wax pattern for a full-ceramic bridge (heat-press technique) – continuation.		
	14. Revision.		
Bibliography	1. Gasparik C. Dental Technology- Lecture syllabus-Electronic Format 2022-23. 2. Stephen F. Rosenstiel, Martin F. Land, Robert D. Walter. Contemporary Fixed Prosthodontics. 6th Edition. Elsevier, 2022. 3. Silas Duarte. Quintessence of Dental Technology. Quintessence, 2010-2020. 4. Ronald E. Goldstein R.E. Esthetics in Dentistry, 3rd edition, Wiley, 2018. 5. Douglas T, Geller W - Esthetic and Restorative Dentistry: Material Selection and Technique. Quintessence, 2018. 6. The Glossary of Prosthodontic Terms: Ninth Edition. J Prosthet Dent. 2017 May;117(5S):e1-e105. doi: 10.1016/j.prosdent.2016.12.001. PMID: 28418832. 7. Johnson T, Patrick DG, Stokes CW, Wildgoose DG, Wood DJ - Basics of Dental Technology: A Step by Step Approach. Wiley, 2015. 8. Shillingburg H.T.& all – Fundamentals of Fixed Prosthodontics. Quintessence Publishing, Illinois, 2012.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	**25%**

Institution for graduate and	University of Medicine and Pharmacy "Iuliu Haţieganu"

postgraduate studies	Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Dental Materials, Ergonomics
Cours title	**DENTAL MATERIALS**
Responsible for lecture	**Lecturer Dr. Adriana Objelean**
Responsible for practical activity	Lecturer Dr. Adriana Objelean Lecturer Dr. Andrada Voina-Țonea Vacant As Univ 54
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	2	3	28	42	55	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the properties that characterize dental materials
Requisites for lectures and practical activities	• Video projection amphitheater. • Laboratories with specific practical activity equipment.

Professional competences	• Ability to adequately use the specialty terminology. • Acquiring knowledge about the composition, properties and indications for use of dental restorative materials, focusing on practical applications. • Inproving the capacity to reproduce the theoretical knowledge, trouhg preparation and use of the dental materials. • Acquisition of the necessary practice for the preparation and use of different types of dental restorative materials. • Acquisition of the necessary practice in order to choose the optimum material for a given clinical situation.
Transversal competences	• Use of assimilated information in new contexts. • Application of theoretical concepts in the practical activity. • Interdisciplinary correlations within the study domains.
General objectives	• Knowledge of fundamental concepts of composition, properties and indications for use of restorative dental materials, focusing on practical applications.
Specific objectives	• Acquiring knowledge about the composition, properties and indications for use of dental materials, with an emphasis on practical

	applications. • Detailed study of the preparation and manipulation of dental materials, used directly by the dentist in the dental office. • Acquiring basic knowledge in the formulation and use of dental science. • Theoretical necessary and a logical algorithm of choice of the most suitable material for a particular clinical situation. • Capacity execution and bibliographic documentation summary.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive lectures.** • **Oral presentation, PowerPoint presentation**.
Content	1. Adhesion. Principles, mechanisms – resume.
	2. Adhesion to the hard dental tissues. Principles.
	3. Self-etch adhesive systems - mechanisms of action.
	4. Resin-based composites- Classification, composition.
	5. Resin-based composites - Classification, composition.
	6. Resin-based composites -Physical and mechanical properties.
	7. Resin-based composites Chemical and biological properties. Adhesion.
	8. Self-curing versus light curing.
	9. Glass ionomer cements and resin -modified glass ionomer cements.
	10. Ceromers, ormocers, compomers.
	11. Luting cements used in dental prosthetics.
	12. Dental amalgam.
	13. Liners. Bases.
	14. Sealing materials.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions.
Practical activity carried out by students	• Checking procedures for testing the knowledge and performing different procedures and techniques for the application of restorative dental materials in prepared cavities.
Content	1. Principles of the adhesion. Resume.
	2. Adhesion to the hard dental tissues.
	3. Etch and rinse adhesive systems.
	4. Self-etch adhesive systems.
	5. Self-curing resin-based composites.
	6. Light-curing resin-based composites.
	7. Glass ionomer cements and resin -modified glass ionomer cements.
	8. Review of the esthetic filling materials.
	9. Luting of the non-esthetic prosthetic restorations.
	10. Luting of the esthetic prosthetic restorations.
	11. Bases, liners.
	12. Materials used as sealers.

	13. Dental amalgam.
	14. Practical examination.
Bibliography	1. Ronald L. Sakaguchi, John M. Powers. Craig's restorative dental materials - 14th ed.Elsevier Mosby 2018. 2. Chiayi Shen, H. Ralph Rawls, Josephine F. Esquivel-Upshaw. Phillips' Science of Dental Materials, 13th Edition, ed.Elsevier Mosby 2021. 3. Andre V. Ritter. Sturdevant's Art and Science of Operative Dentistry, 7th Edition, 2018. 4. Stephen F. Rosenstiel, Martin F. Land. Contemporary Fixed Prosthodontics, 5th Edition, Ed Elsevier, 2015. 5. Richard Van Noort. Introduction to Dental Materials, 4th Edition. ed Elsevier, 2013. 6. W. Stephen Eakle, Kimberly G. Bastin. Dental Materials, Clinical Applications for Dental Assistants and Dental Hygienists, 4th Edition. Ed. Elsevier 2020. 7. Nicola C şi colab. – Materiale dentare – Consideraţii clinice şi tehnologice. Ed. Casa Cărţii de Ştiinţă, Cluj-Napoca, 2009.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**30%**	**30%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Dental Materials, Ergonomics
Cours title	**ERGONOMICS**
Responsible for lecture	**Lecturer Dr.Voina-Ţonea Andrada- Feliciana**
Responsible for practical activity	Lecturer Dr. Voina-Ţonea Andrada- Feliciana Vacant As Univ 54
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Elementary knowledge of human body anatomy.
Requisites for lectures and practical activities	• Video projection amphitheater. • Laboratories with specific practical activity equipment.

Professional competences	• Ability to use the specialty terminology. • Knowledge of concepts regarding rules of dentist behavior during its work. • Knowledge regarding correct working positions, optimal movements and adequate armamentarium. • Acquisition of practical experience necessary for "four-handed dentistry". • Assimilation of general information regarding the rules of dental practice organization and environmental factors. • Dental muscular-skeletal disorders recognition and their treatments.
Transversal competences	• Use of assimilated information in new contexts. • Application of theoretical concepts in the practical activity. • Interdisciplinary correlations within the study domains.
General objectives	• Knowledge of concepts regarding rules of dentist behavior during its work in such a way to obtain the comfort and protection of his health, with maximum of work efficiency.
Specific objectives	• Assimilated knowledge regarding dental work positions, movements and adequate armamentarium. • Acquisition of practical experience necessary for "four-handed dentistry". • Assimilation of general information regarding the rules of dental practice organization and environmental factors. • Study of dental muscular-skeletal disorders recognition and their treatments. • Exercising the synthesis ability and bibliographical research.

LECTURES	
Teaching methods	• **Interactive, systematic lectures.** • **Oral presentation.** • **Powerpoint presentation.**
Content	1. Ergonomic-based organizing criteria: Anthropometric criteria.
	2. Ergonomic-based organizing criteria: Physiological and neuro-psychological criteria.
	3. Ergonomic-based organizing criteria: Chrono-biological and environmental criteria.
	4. Ergonomic-based organizing criteria: Environmental criterion. Specific dental activity criterion.
	5. Ergonomic organization of dental activity. Dental practice: location, internal organization. Ergonomic parameters of the working space.

	6. Equipment of the treatment area.
	7. Dental unit components. Dental instruments.
	8. Dental unit components. Dental instruments.
	9. Ergonomic organization of the medical activity.
	10. Ergonomic organization of the medical activity.
	11. Four-handed and six-handed dentistry.
	12. The transfer of instruments and materials during dental procedures.
	13. The transfer of instruments and materials during dental procedures.
	14. Overstress. Muscular-skeletal disorders.
PRACTICAL ACTIVITIES	
Teaching methods	• Interractive discussion. • Practical demonstrations.
Practical activity carried out by students	• Practical applications corresponding to each practical class discussed topic. • Exercises related to the practical class discussed topics.
Content	1. Dentist's dress code in order to avoid contamination.
	2. Dental assistant's dress code in order to avoid contamination.
	3. Manual instruments (examination kit). Light curing device.
	4. The ambient: information regarding dental treatment room dimensions, walls and floors, chromatics, lightning sources, microclimate, noise effects.
	5. Equipment of the treatment area: "zero point", optimal and maximum space.
	6. Dental unit: components, handling.
	7. Rubber dam system: components and handling.
	8. Working positions of dentist and dental assistant. Patient positioning in the dental chair.
	9. Four-handed and six-handed dentistry.
	10. Ergonomic organizing of medical activity: scaling.
	11. Ergonomic organizing of medical activity: preparation of a dental cavity and its restoration using a light-cured resin composite.
	12. Ergonomic organizing of medical activity: application of an amalgam restoration.
	13. Ergonomic organizing of medical activity: full-arch impression.
	14. Practical exam.
Bibliography	1. P. Kalura, S. K. Punia, R. Bhargava - Ergonomics in Dentistry, Lambert Academic Publishing, 2021, ISBN-10:6203840556. 2. L. B. Boyd - Dental Instruments, 7th Edition, 2021, ISBN: 9780323672436. 3. S. Singh - Ergonomics in Dental Practice, Lambert Academic Publishing, 2020, ISBN:6202528400. 4. D.S. Robinson - Modern Dental Assisting, Elsevier, 2020, ISBN: 9780323624855. 5. M. Bhandari, S. Grover, D. Rawat - Ergonomics:The Dental Law: Ergonomic applications to dental practice, Lambert Academic

	Publishing, 2019, ISBN-10: 613945333X. 6. P.S Chauhan - Handbook of Instruments in Dentistry, CBS Publishers, 2018, ISBN: 978-9387742833. 7. D. Mostofsky, F. Fortune - Behavioral Dentistry, Wiley Blackwell, 2013, ISBN-10: 1118272064. 8. D. S. Robinson, D. L. Bird - Essentials of Dental Assisting, 6th Edition, Elsevier, 2013, ISBN-10: 0323400647. 9. C. Scheller-Sheridan - Basic Guide to Dental Instruments,Wiley Blackwell, 2011, ISBN-10: 144433532. 10. B. L. Finkbeiner, C. A. Finkbeiner - Practice Management for the Dental Team 7th Edition, Elsevier, 2011, ISBN-10: 9780323065368.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**30%**	**30%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Periodontology
Cours title	**PERIODONTOLOGY**
Responsible for lecture	**Lecturer Dr. Ștefan Adrian Petruțiu**
Responsible for practical activity	Lecturer Dr. Stefan Adrian Petrutiu Asist. Univ. Dr. Cristina Micu Vacant AS 40
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic knowledge of histology, physiology, microbiology. • Evaluation of clinical and microbiological parameters.
Requisites for lectures and practical activities	• Amphitheater with projection system/ Online virtual system. • Preclinical laboratory with specific equipment for the practical activity.

Professional competences	• Ability to identify the clinical signs of periodontal inflammation **.** • Ability to identify the clinical signs of periodontal destruction. • Ability to interpret and use the results of the microbiological testing. • Ability to analyze the clinical data in correlation with the complementary investigations. • Ability to advice the patient on the improvement of their oral hygiene status and how to decrease the inflammation.
Transversal competences	• Application of theoretical knowledge in clinical practice. • Determination of interdisciplinary correlations of the studied fields.
General objectives	• Provide the necessary data to identify the signs and symptoms associated with specific periodontal affections and their type of quantification.
Specific objectives	• Provide the theoretical knowledge about periodontal entities semiology. • Provide the necessary knowledge for clinical application of the above notions. • Provide the necessary knowledge for pain management of the periodontal patient. • Provide the knowledge necessary for the development of communication skills with periodontal patients. • Practice the bibliographic documentation skills.

LECTURES	
Teaching methods	• **Lectures, Power point presentations, Interactive lecture.**
Content	1. Periodontology – history, terminology, medical concepts in periodontal medicine.
	2. Clinical signs in gingival diseases.
	3. Symptomatology of gingival diseases.
	4. Recognition of some signs and symptoms of deep periodontal destruction.
	5.Local vs. systemic inflammatory status. Oral signs, symptoms and correlation with systemic changes.
	6.Periodontal signs and symptoms in pregnancy, Down syndrome.
	7.Drug induced gingival enlargement: signs and symptoms.
	8. Gingival bleeding as symptom of periodontal disease.
	9. Pain as symptom of periodontal disease.
	10. Aesthetic changes- reason for periodontal consult.
	11. Other symptoms for patient presentation to the periodontist: tooth migration, mobility, fear of teeth loss.
	12.Appreciation parameters of quality of life changes in the periodontal diseased patient before, during and after treatment.
	13.Symptoms and signs associated with lack of attached gingiva.
	14.Periodontal signs and symptoms of the patient with gingival

	recessions.		
PRACTICAL ACTIVITIES			
Teaching methods	• Power-point presentations, lectures, interactive discussions.		
Practical activity carried out by students	• Preclinical activities on specific study models, observational interactive discussions. Practical exercises to recognize instruments, disease signs and symptoms and inclusion in the clinical entity.		
Content	1. Healthy periodontium – assessment on clinical cases, elements of clinical evaluation.		
	2. Gingival inflammation – signs and symptoms.		
	3. Recognition of symptoms and signs of non-plaque induced gingivitis.		
	4. Recognition of differential symptoms and signs between plaque induced and non-plaque induced gingivitis.		
	5. Clinical evaluation of signs associated with the lack of attached gingiva.		
	6. Periodontal probes. Description, comparative recognition, advantages and disadvantages.		
	7. Instruments used for supra-gingival and sub-gingival scaling.		
	8. Instruments used in periodontal surgery.		
	9. Maintenance care of periodontitis patients. Primary and secondary prophylaxis of periodontal disease.		
	10. Maintenance of the diabetes patients with gingivitis. Maintenance plans.		
	11. Recapitulation of the signs and symptoms encountered in periodontal disease.		
	12. Medication used for pain and gingival bleeding management.		
	13. Clinical appreciation of aesthetic modification in periodontology.		
	14. The evolution of signs of symptoms after periodontal treatment.		
Bibliography	1. Roman A, Lazar L, Surlin P, Stratul SI. Parodontologie 1.Notiuni de baza. Ed Med Univ Iuliu Hatieganu 2019 (ISBN 978-973-693-901-3). 2. Roman A, Soancă A, Petruțiu SA, Condor D, Cioban C. Parodontologie 2. Ghid de tratament. Ed Med Univ Iuliu Hatieganu 2018 (ISBN 978-973-693-766-8). 3. Newman MG, Takei H, Klokkevold PR, Carranza FA. Newman and Carranza's Clinical Periodontology, 13th Edition, Elsevier, 2018. 4. Lang NP, Berglundh T, Giannobile WV, Sanz M(Eds). Lindhe's Clinical Periodontology and Implant Dentistry, 7th Edition, Wiley-Blackwell, Munksgaard, 2021(ISBN: 978-1-119-43888-5.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Functional sciences
Discipline	Immunology and Allergology
Cours title	**ALLERGOLOGY AND CLINICAL IMMUNOLOGY**
Responsible for lecture	**Lecturer Dr. Muntean Ioana Adriana**
Responsible for practical activity	Lecturer Dr. Pintea Irena
The formative category of the discipline	DD
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Phisiology
Requisites for lectures and practical activities	• Amphitheater, projection systems, audio system. • Halls with Projection Systems, Laboratory, Specialized Outpatients, Salons.

Professional competences	• Ability to Use Properly and In Context Expert Terminology. • Knowledge of Immobilized Cells and Their Normal Functions. Mechanisms that are primed for immune response. Elements involved in immune response: complement system, cytokines, adhesion molecules, receptors, immunoglobulins. • Study of defense mechanisms. • Familiarize with immune response assessment methods. • Ability to indicate, explain, and interpret analysis bulletins. • Understanding issues related to immune mechanism disorders: hypersensitivity, allergies, autoimmune, immune deficiency, transplant, cancers. • Knowledge of methods and products used in immune response influencing therapy: immunomodulators (immunosuppressive, immunostimulating, biological therapies). • Knowledge of food-induced diseases with immune mechanism.

	• The objective examination of the immune system.
Transversal competences	• Using notions in new contexts. • Using theoretical notions in problem solving. • Optimal and creative use of own potential in scientific activities. • Own professional development.
General objectives	• Knowledge, deepening and correct use of the concepts of immunology.
Specific objectives	● Students familiarization with aspects related to the application of theoretical and practical principles of immunology with emphasis on the use of diagnostic methods: serological, histological, immunofluorescence, in vivo testing. ● Knowledge of the main features of diseases with immune-allergic. ● Understanding the motives and mechanisms that stand at the base of the defense response. ● Familiarization with the main research directions in the field of immunology. ● Exercise of synthesis and documentary capacity.

LECTURES	
Teaching methods	• **Lecture, systemic exposure, conversation, questioning** • **Oral exposures coupled with PowerPoint presentations.**
Content	1. History, Importance of immunology, Natural immunity, Natural and acquired immunity. Organs and cells involved in immune response.
	2. Antigen recognition method. Immune activation mechanism. The effector response.
	3. Antigens, Antibodies, Monoclonal Antibodies.
	4. System Complement.
	5. Cytokines, chemokines, receptors, adhesion molecules, apoptosis.
	6. Types of hypersensitivity.
	7. Allergies.
	8. Autoimmune diseases.
	9. Transplant, Tumors.
	10. Immune Deficiency.
	11. Diseases of oral cavity. Gingivite, periodontitis.
	12. Impairment of oral cavity in systemic diseases.
	13. Immunomodulatory methods. Immunosuppressants.
	14. Immunotherapy. Induction to Immune Tolerance.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic exposure, conversation, problem solving, demonstrations, patients.
Practical activity carried out by students	• Coversation. Clinical exam. Problem solving.
Content	1. In vitro investigation methods (complete blood count, immune cells).
	2. In vitro investigation methods (ELISA, FACS,

	immunohistochemistry, etc).		
	3. Techniques for antibodies evaluation (including MoAb).		
	4. Immune investigations and their interpretation.		
	5. Cytokines, adhesion molecules, complement, Ab, AutoAb.		
	6. Immune Investigations and Their Interpretation. In vivo investigations presentation.		
	7. Immunodeficiency case pesentations. Examining of lymph nodes, spline, the corroboration of clinical examination information with patient history and relevant laboratory elements for dissonant states; conditions of performance (compatibility, immunosuppression).		
	8. Tumors case presentations. Examining of lymph nodes, spline, the corroboration of clinical examination information with patient history and relevant laboratory elements for dissonant states.		
	9. Transplant case presentations.		
	10. Hypersensitivity - case presentations.		
	11. Immunological assessment and Allergology: Total IgE, specific IgE, Immunogram.		
	12. Types of autoantibodies, disimune states laboratory identification.		
	13. Autoimmune diseases cases, patients.		
	14. Immunopathology in parodontitis.		
Bibliography	1. Cristea V,Monica Crietyear (under red.). Course on Immunology - Faculty of Medicine. Ed a-iva, "Iuliu Haţieganu" Medical University, Cluj-Napoca, 2011. 2. Dumitraşcu d. Atopic diseases, Ed. Med. Univ. "Iuliu Haţieganu", Cluj Napoca, 2002. 3. Doru dejica Immunotherapy Therapy, Mega Publishing House, Cluj-Napoca, 2006. 4. Middleton's Allergy Principles & Practice 8th Edition. Ed. Mosby 2013. 5. Roitt IM - Essential Immunology, 13th Edition, 2017, Blackwell Science. 6. Janeway's Immunobiology 9th,Kenneth Murphy, 2017.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	12 Medical education

Discipline				Modern languages					
Cours title				**ROMANIAN LANGUAGE**					
Responsible for lecture				-					
Responsible for practical activity				**Assisting Professor Anda Lăscuș**					
The formative category of the discipline				DC					
Compulsory discipline				Compulsoy					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1, 2	0	2+2	0	28+28		56	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• To respect the rules and regulations for practical activities

Professional competences	• The ability to properly employ Romanian (listening, reading, speaking, writing) in order to communicate in general contexts, both academic and medical. • The ability to use medical terms specific to various fields.
Transversal competences	• The ability to employ prior knowledge of Romanian in medical and academic activities in order to communicate adequately in Romanian. • The ability to make interdisciplinary connections in the fields of study.
General objectives	• Development of competences in general Romanian and in academic medical language.
Specific objectives	At the end of the seminar, the learner will be capable to: • use all forms of the verb *a durea* and to conjugate it in all verb tenses • give advice and to make recommendations for a patient • speak about teeth and tooth structure • perform an inventory of medical instruments specific to dentistry speak about prevention of dental affections.

PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching and multimedia support.
Practical activity carried out by students	• Specific exercises and activities (individual, in pairs or in groups) aiming to develop the main competences in Romanian (speaking, listening, reading, and writing).
Content	1. Welcome back! My identity. Expressing likes, speaking about daily activities.
	2. Revision – verbs in present tense, verbs that require personal and

	reflexive pronouns.
	3. Family. Possessive adjectives.
	4. The human body. Internal organs.
	5. The genitive case for common and proper nouns.
	6. The adjective – grades of comparison.
	7. Ordinal numerals. Describing an image. Speaking about differences.
	8. My future doctor's practice. The dental unit.
	9. The future tense (literary and popular).
	10. Taking a history. The patient chart. The clinical examination.
	11. Expressing pain. Giving advice.
	12. The dental cavity. The anatomy of the tooth.
	13. Revision.
	14. The subjunctive – 3rd person.
	15. Prevention of dental problems. Tooth brushing. The mouth.
	16. Verbs in the imperative mood.
	17. Making an appointment at the dentist's.
	18. Verbs in the conditional mood.
	19. At the dentist's – patients′ experiences.
	20. Verbs in the past continuous.
	21. I am afraid of the dentist. Dental anxiety.
	22. Verbs expressing moods. The verb *a-i plăcea* (present, past, future).
	23. Dental instruments. Sterilization process.
	24. The impersonal pronoun *se*.
	25. Xerostomia – symptoms, causes, recommendations.
	26. Direct and indirect speech.
	27. Revision.
	28. Written and oral tests.
Bibliography	1. Gogâţă C., Tomoiagă A., Băgiag A., Coiug A., Andreica A., *Limba română medicală. Sinteze pentru studenţii Erasmus*, Editura Universitară Medicală, Cluj-Napoca, 2018. 2. Andreica A., Băgiag A., Coiug A., Gogâţă C., Tomoiagă A., *Româna medicală pentru nivel intermediar*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 3. Băgiag A., Andreica A., Tomoiagă A., Coiug A., Gogâţă A., *Limba română în context stomatologic*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 4. Gogâţă C., Tomoiagă A., Coiug A., Andreica A., Băgiag A., Ursa A., *Limba română. Elemente de limbaj medical. Nivel A2*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2018. 5. Bejan, D. Gramatica limbii române. Ediția III, Cluj, Ed. Echinox, 2001. 6. Brâncuș, G. Ionescu A., Saramandu M., Limba Română. Manual pentru studenții străini. Ediția IV, Ed. Universității din București, 1996. 7. Dorobăţ, A., Fotea, M. Limba română de bază. Iași, Ed. Institutul

	European, 1999. 8. Kohn, D., Puls. Limba română pentru străini. Iaşi, Ed. Polirom, 2009. 9. Platon, E., Sonea, I., Vîlcu, D. Manual de limba română ca limbă străină (RLS). A1-A2. Cluj-Napoca, Casa Cărţii de Ştiinţă, 2012. 10. Pop, L. Româna cu sau fără profesor. Ediția V, Cluj-Napoca, Ed. Echinox, 2003.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester and of the individual portfolio**
Percent of the final grade:	**33%**	**33%**	**34%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	12 Medical education
Discipline	Medical informatics and Biostatistics
Cours title	**MEDICAL RESEARCH METHODOLOGY**
Responsible for lecture	**Assoc. Prof. Dr. Horaţiu Colosi**
Responsible for practical activity	Assoc. Prof. Dr. Horaţiu Colosi Lect. Dr. Dan Istrate Lect. Dr. Tudor Călinici
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	1	2	14	28	8	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Fundamental Knowledge of Medical Informatics and Biostatistics.
Requisites for lectures and practical activities	• Telephone calls are not allowed during classes; Food and beverage consumption are not permitted during classes. • Late students are not accepted in class, since this proves to be disruptive to the educational process. • Each student must complete an individual portfolio of practical activities. • Students will scan the keycard to access the discipline IT

	resources using the specially designed system. They will use their authentication data (username, password) to log in the discipline network. • Students shall comply to the Regulations of the Discipline of Medical Informatics and Biostatistics. • Telephone calls are not allowed during classes. • Food and beverage consumption are not permitted during classes. • Late students are not accepted in class, since this proves to be disruptive to the educational process.

Professional competences	• Efficient use of bibliographic documentation methods to retrieve, use and critical evaluate medical scientific literature. • Identification and application of proper study types and research procedures in medical research. • Selecting and applying correct methods of data analysis in medical research. • Correct interpretation and critical assessment of published research results. • Correct dissemination of scientific works (written and oral presentation).
Transversal competences	• Competencies for the use of digital media for medical information. • Competencies for professional continuous education by training of critical thinking skills. • Competencies for critical evaluation of medical literature for practicing evidence-based medicine / dentistry (EBM / EBD). • Competencies for writing a scientific thesis and its oral defense. • Competencies of professional ethics.
General objectives	• To develop skills for effective retrieval, use and critical evaluation of medical scientific literature. • To develop skills to choose proper research methods and types of clinical studies in medical research. • To develop skills to choose suitable methods for data analysis and to correctly interpret results from medical research. • Skills development and acquisition of knowledge about appropriate methods of presenting results of scientific research. • Skills development and acquisition of knowledge needed to practice evidence-based medicine / dentistry (EBM / EBD).
Specific objectives	The course provides students fundamental knowledge on: 1. Searching, recording and analyzing medical literature. 2. Domains of medical research and clinical study types. 3. Methods of medical research. 4. Analysis and interpretation of results of medical studies.

	5. Principles for writing and correct presentation of research results 6. Principles of evidence-based medicine / dentistry (EBM / EBD). 7. Ethical principles in medical research. Practical Activities have as objective the application of knowledge regarding: 1. Retrieving and accessing relevant medical information. 2. Formulating proper research questions, defining the aim and objectives of research. The selection and proper formulation of research hypotheses. The identification of target populations in medical studies. Understanding sampling methods. Defining appropriate research variables. Writing a research protocol correctly. 3. Understanding and choosing correct methods of data collection. 4. Understanding and choosing correct statistical methods for data analysis. 5. Using computer tools to assist medical research. 6. Understanding and using the correct principles of medical writing and oral presentation of medical research results. 7. Evaluating the validity of studies. 8. Critical reading of medical scientific literature.

LECTURES	
Teaching methods	• Oral exposure doubled by interactive multimedia presentations. • Academic lectures, demonstrations, interactive case studies, • discussions based on research scenarios.
Content	1. Introduction. • Variability in the living world. • Types of variables. Bibliographic documentation.
	2. Basic methodology of medical research. • Phases of a research. • Data collection. • Sample-sampling. • Estimation and confidence intervals. The research protocol.
	3. Clinical studies. Prognostic studies (Evaluation of risk and protective factors).
	4. Clinical studies. Diagnostic studies (Evaluation of diagnostic procedures).
	5. Clinical studies. Survival analysis (Survival studies).
	6. Clinical studies. Therapeutic studies (Randomized controlled trials).
	7. Secondary research. Systematic Reviews and Meta-analyses.
	8. Regression analysis and modelling in medical research. • Linear regression

	• Simple regression • Multiple regression • Logistic regression The description of a health phenomenon.
	9. Choosing a statistical method. • Data types • Comparing two groups • Independent and paired samples • Relation between two variables Statistical methods for multiple variables.
	10. Study validity and bias in medical studies. • Selection bias • Measurement and information bias Confounding.
	11. Presenting data. • Tables and graphics used to present categorical data • Tables and graphics used to present quantitative data • Graphics for two variables Errors in presenting data.
	12. Medical writing and communication of research results. • Objectives of scientific writing • Proper scientific language and style • Types of medical texts • Principles of medical writing of a research paper • Principles of oral communication of a research paper The structure and content of a research paper.
	13. Evidence based medicine/dentistry (EBM/EBD). • Basic concepts • Steps for practicing EBM/EBD • Acquiring evidences by clinicians • Hierarchy of evidence • Searching for evidence • Building pertinent clinical questions (the PICO format) • Evaluation of validity for different types of clinical studies Evaluation of study relevance.
	14. Ethics of medical research. • Ethical principles in medical research • Research ethics committees Ethical rules during research.
PRACTICAL ACTIVITIES	
Teaching methods	• Computer assisted solving of clinical research scenarios; Explanations and dialogue in classroom doubled by individual assistance.
Practical	• Students complete a portfolio of practical works using dedicated

activity carried out by students	computer software.
Content	1. Safety rules. Introduction. Bibliographic documentation – citing references according to the Vancouver style.
	2. Bibliographic documentation – literature search, bibliographic files.
	3. Assessing prognostic factors 1. – Case-control study: research scenario (research protocol, data description, data analysis, presenting and interpreting the results).
	4. Assessing prognostic factors 2. – Cohort study: research scenario (research protocol, data description, data analysis, presenting and interpreting the results).
	5. Assessing the existence, level and direction of influence for prognostic factors – correlations and regressions: research scenario (research protocol, data description, data analysis, presenting and interpreting the results).
	6. Assessing prognostic factors 3. – Survival analysis: research scenario (research protocol, data description, data analysis, presenting and interpreting the results).
	7. Assessing a diagnostic test: research scenario (research protocol, data description, data analysis, presenting and interpreting the results).
	8. Assessing a therapy – RCT: research scenario (research protocol, data description, data analysis, presenting and interpreting the results).
	9. Meta-analysis – understanding and interpreting the results.
	10. Identifying bias in medical research. Choosing correct statistical methods.
	11. Presenting medical research (oral communication of research results): Practical activity for acquiring skills in using proper scientific style for oral presentations with slides.
	12. Presenting medical research (written communication of research results): Case study (critical appraisal of a published original research).
	13. Evaluation of study validity. Interpreting the results of medical studies. Practice of Evidence Based Medicine/Dentistry (EBM/EBD).
	14. Recapitulative research scenarios.
Bibliography	1. Machin D, Campbell MJ. Design of studies for medical research. Chichester. West Sussex: John Wiley & Sons Ltd; 2005. 2. Hulley SB, Cummings SR, Browner WS, Grady DG, Newman TB. Designing Clinical Research. 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2013. 3. Drugan T, Berghe AS, Bolboaca SD, Bondor C, Calinici C, Colosi H, Cutas A, Iancu M, Istrate D, Leucuta DC, Valeanu M. Metodologia Cercetării Științifice Medicale. Cluj-Napoca: Editura Medicală

	Universitară „Iuliu Haţieganu”, 2017. 4. Course presentations for students of the faculty of dental medicine / stomatology [online] 2002-2021. Available from URL: http://www.info.umfcluj.ro. 5. Practical activities of medical research methodology for students of the faculty of dental medicine / stomatology [online] 2002-2021. Available from URL: http://www.info.umfcluj.ro.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**30%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Molecular sciences
Discipline	Microbiology
Cours title	**MICROBIOLOGY (BACTERIOLOGY. VIRUSOLOGY. PARASITOLOGY)**
Responsible for lecture	**Assoc. Prof. Dr. Carmen COSTACHE, MD, PhD**
Responsible for practical activity	Assist. Dr. Mădălina Bordea Assist. Dr. Baciu Alina
The formative category of the discipline	DF
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic biology. • Working with the light microscope.
Requisites for lectures and practical activities	• Respecting the academic rules for the participation to lectures • Respecting the rules for a microbiology laboratory (wearing a white robe, protective gloves when necessary, etc.).

Professional competences	• Involvement in educating the population on the impact of micro-organisms (including human microbiocenosis) on health. • Knowledge about microorganisms: bacteria, viruses, parasites and fungi

	producing human pathology particularly in oral cavity and sinuses. • Knowledge of medical terminology. • Understand the relationship between microorganisms and the human body, ways of transmission and production of infectious diseases to participate in prevention of pathology associated with dental practice. • Understand and apply the necessary measures to prevent nosocomial infections.
Transversal competences	• Developing complex professional tasks. • Identify objectives to be achieved, the resources available, the conditions for completion of their work progress, working time, deadlines and risks related to the execution of professional duties. • Identify roles and responsibilities in a multidisciplinary team of networking and application techniques. • Effective work and longitudinal feedback within a team. • Effective use of information sources and communication resources (Internet portals, specialized software applications, databases, online courses etc.) to ensure continuous personal and professional development.
General objectives	• Acquiring the basics of medical microbiology: oral cavity microbiology. • Study of the microorganisms (bacteria, viruses, parasites, fungi). • Knowledge and correct use of microbiology concepts related to contamination with infectious agents and their transmission to humans to initiate an infectious process. • Properties of the microorganisms in oral cavity and sinuses, relationship with humans and their environment. • The importance of microorganisms as etiologic agents of various infectious clinical entities: oral cavity infections, infections with oral cavity as an entrance point.
Specific objectives	• Acquisition of theoretical and practical knowledge on infectious agents and their possibilities of human contamination. • Knowledge of an infectious process in the oral cavity and sinuses and how it is diagnosed. Interpretation of microbiological analysis bulletins. • Preparing students to perform minimum laboratory techniques needed for a medical dentist. • Understand the reasons and mechanisms underlying the choice of a particular protocol work. • Familiarization with the directions of research in microbiology. • Exercise synthesis and bibliographic documentation capacity.

LECTURES	
Teaching methods	• **Lectures, systematic exposure, conversation.** • **Oral exposure coupled with PPT.**
Content	1. Virology. General properties, classification, structure, viral multiplication.
	2. Viral pathogenicity and antiviral chemotherapy.

	3. Virology: Orthomyxoviridae-influenza, coronaviruses.
	4. Viral hepatitis, HIV infection.
	5. Parasitology: generalities.
	6. Most important human parasitic diseases: giardiasis, oxiurasis, ascaridosis si trichinelosis.
	7. Oral cavity microbiota: species, evolution with age.
	8. Phisical and chemical factors influencing oral microflora.
	9. Agents producing infectious pathology of oral cavity: streptococci.
	10. Agents producing infectious pathology of oral cavity: anaerobic bacteria.
	11. Agents producing infectious pathology of oral cavity: viruses.
	12. Agents producing infectious pathology of oral cavity: parasites.
	13. Agent producing infectious pathology of the sinusis: fungi/yeasts.
	14. Agent producing infectious pathology of the sinusis: filamentous fungi.
PRACTICAL ACTIVITIES	
Teaching methods	• Conversation, demonstration, performing.
Practical activity carried out by students	• Interpretation of assays in virology. • Students perform an antigen-antibody reaction for hepatitis. • Students perform O & P analysis. • Students see and discuss results of bacterial identification for anaerobic/aerobic bacteria. • Students see and discuss results of fungi identification.
Content	1. Principles of laboratory diagnosis in viral infections.
	2. Laboratory diagnosis in hepatitis.
	3.Laboratory diagnosis in influenza, SARS-CoV-2.
	4. Laboratory diagnosis in HIV infection.
	5. Laboratory diagnosis in giardiasis, oxiurasis.
	6.Laboratory diagnosis in ascaridosis and trichinelosis.
	7. Laboratory diagnosis in anaerobic infections of the gums.
	8. Laboratory diagnosis in anaerobic infections of the oral cavity.
	9. Laboratory diagnosis in aerobic infections of the oral cavity.
	10. Laboratory diagnosis in infections asociated with therapeutic manovers in the oral cavity.
	11. Laboratory diagnosis in infections of the sinusis –yeast.
	12. Laboratory diagnosis in fungal infections of the sinusis – filamentous.
	13. Review.
	14. Practical examination.
Bibliography	1. George F. Brooks, Janet S. Butel, Stephen A. Morse, Joseph L. Melnick, Ernest Jawetz, Edward A. Adelberg - Jawetz, Melnik Adelberg's Medical Microbiology – 26-th edition, McGraw-Hill Professional Ed., 2013. 2. Carmen Costache, Monica Junie, Ioana Colosi. Medical

	bacteriology and medical virology. Editura Medicală Universitară "Iuliu Haţieganu", Cluj Napoca, 2017. 3. Monica Junie, Carmen Costache (Trad). Basic Bacteriology and Virology. Editura Medicală Universitară „Iuliu Haţieganu" Cluj-Napoca, 2011. 4. Carmen A.Costache, Ioana A.Colosi, Madalina A. Bordea. Laboratory works for Microbiology. Editura Medicală Universitară "Iuliu Haţieganu", Cluj Napoca, 2019.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**15%**	**15%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetic Dentistry and Dental Materials
Discipline	Dental Propedeutics and Esthetics
Cours title	**MEDICAL PRACTICE**
Responsible for lecture	**Lecturer Dr. Cristina Gasparik**
Responsible for practical activity	-
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	0	40	0	160			2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• Attendance – 100%. • Lab coat and scrubs. • Completion of required tasks.

Professional competences	• Medical practice activities in general medicine units. • Medical practice activities in dental medicine units.
Transversal competences	• Ability to work in a team during therapeutic procedures.

General objectives	• Acquiring knowledge on working in general medicine units and dental medicine units.
Specific objectives	• Knowledge on working in general medicine units and dental medicine units, the patients', and dental instruments' circuits. • Learning and exercising the examination of patients, elaboration of the patient chart. • Learning notions regarding preparation of the instruments for disinfection and sterilization and regarding instrument sterilization. • Knowledge about specific instruments used in the medical unit where the student goes for summer medical practice.

PRACTICAL ACTIVITIES	
Teaching methods	
Practical activity carried out by students	1. Knowledge of the structure and functioning of the medical unit. 2. Knowledge of the medical records and documents used in the medical unit. 3. Knowing and applying the medical attributes of the nurses regarding receiving, registering, and preparing the patients for the clinical examination. 4. Development of communication skills with the patient: patient history, informing and educating the patient. Development of special communication skills according to sex, age, childhood, incurable, terminally ill or non-cooperating patient. Communicating with the patient's family. 5. The preparation of medical instruments: washing, degreasing, syringe and needle control, sterilization, the maintenance, and route of sterile materials. 6. Knowing and applying the attributes of the nurse regarding the maintenance of hygiene norms in the medical unit. 7. Elementary sterilization practices: chemical sterilization, steam sterilization, modern techniques of sterilization. 8. Development of clinical examination skills: physical examination, palpation, auscultation, percussion, and special examination techniques: (measuring blood pressure, temperature, pulse). 9. Recognizing the specific instruments for oral examination 10. Recognizing the specific instruments for dental treatments performed in the dental office. 11. Basic knowledge on the dental unit: components, action, and accurate position of the patient and of the physician. 12. The disinfection of the dental office. 13. Knowledge of the protection methods against infectious diseases in the dental office. 14. Basic patient care procedures. 15. The knowledge of notions regarding the dental instruments' preparation for disinfection and sterilization.

	16. The preparation of dental materials for impressions, fillings. 17. Completion of medical charts. 18. Elaboration of treatment plans.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**-**	**100%**	**-**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				12 Medical education					
Discipline				Sport					
Cours title				**PHYSICAL EDUCATION**					
Responsible for lecture				**-**					
Responsible for practical activity				**Associate professor PhD Mihai Ludovic Kiss**					
The formative category of the discipline				DC					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1, 2	0	1+1	0	14+14		28	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Minimal motricity skills after graduating the high school.
Requisites for lectures and practical activities	• Students will not attend practical courses / activities with open mobile phones. Also, telephone conversations will not be tolerated during the course or practical activities, nor do students leave the gym to take personal phone calls (emergency only). • Food and beverages are not allowed during the practical activities. • It will not be tolerated the students' delay in the practical activities as it proves to be disruptive to the educational process. Students will be equipped according to the specificity of physical education. • Students will display an appropriate attitude towards the teaching process, teaching materials, teachers and colleagues.

Professional competences	• Formation of future doctors, family doctors according to modern concepts regarding the optimization of the lifestyle of the population, based on the systematic practice of physical activities and exercises.
Transversal competences	• Applying certain notions and skills acquired in daily activities. • Forming a healthy lifestyle by exercising regularly. • Self-development and continuous adaptation to new physical activities.
General objectives	• Maintaining an optimal state of health by forming the habit of systematic practice of physical exercises.
Specific objectives	• Outline knowledge of the importance of training and systematic exercise of physical exercises in order to maintain optimal health. • Înţelegerea şi aplicarea deprinderilor de practicare a exerciţiilor fizice de menţinere a sănătăţii în timpul liber. • Formarea capacităţii şi obişnuinţei de practicare sistematică a exerciţiilor fizice ca o componentă de bază a stilului de viaţă favorabil sănătăţii („Mens sana in corpore sano”). • Knowledge of certain aspects regarding the prevention and correction of deficient attitudes and recovery of certain post-traumatic sequelae and those caused by some diseases. • Knowledge of the terminology specific to the activity of physical education and certain sports. • Development and cultivation of aesthetic sense and the formation of a positive attitude towards artistic activities.

PRACTICAL ACTIVITIES	
Teaching methods	• Lecture, explanation, demonstration.
Practical activity carried out by students	
Content	1. General physical development.
	2. Corrective and recovery physical activities (sports activities that require low physical effort).
	3. General notions about the game of basketball.
	4. General notions about the game of volleyball.
	5. General notions about the game of football.
	6. General notions about ball-room dance.
	7. General notions about aerobic, Tabata and other specific body trainings.
	8. General notions about fitness, bodybuilding.
	9. General notions about table tennis, badminton.
	10. Competitive games with different objects in small groups.
	11. Workshops – general physical training.
	12. General notions about chess, schi-tourism.

	13. General notions regarding elements of medical gymnastics.		
	14. Final evaluation.		
Bibliography	1. Popovici Cornelia, Kiss Mihai, David Sergiu, Kollos Ciprian, Fotbal – caiet de lucrări practice 2020. 2. Kiss Mihai, Kollos Ciprian, Popovici Cornelia, David Sergiu, Volei – Caiet de lucrari practice, 2019. 3. Kollos C., Kiss M.L., Popovici C., David S., Baschet – Caiet de lucrări practice, 2017. 4. Kiss Mihai Ludovic, Popovici Cornelia - Dans de societate – caiet de lucrări practice, 2017. 5. M. Kiss, Caiet de lucrări practice: Culturism - Fitness, 2013. 6. C. Suciu, Îndreptar de lucrări practico-metodice, 2013. 7. Regulamentele ramurilor de sport practicate.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**-**	**70 %**	**30 %**

3RD YEAR

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Odontology, Endodontics and Oral Pathology
Cours title	**RESTORATIVE ODONTOTHERAPY**
Responsible for lecture	**Professor 2 vacancy**
Responsible for practical activity	Vacant Teach. Assist. 27 Vacant Teach. Assist. 29 Assist. Dr. Corina Ionescu Assist. Dr. Mara Rusnac
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	2	4	28	56	66	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of tooth morphology and TMJ.

Requisites for lectures and practical activities	• Amphitheater with projection system. • Laboratories with specific facilities for the practical courses.

Professional competences	• The capacity of using the appropriate terminology. • To know the examination instruments and the instrument used for the preparation of different types of tooth cavities. • Knowing and choosing the proper direct odontotherapy methods indicated in different clinical situations. • Acquiring the notions of coronal restorations, through different methods and materials. • Developing the ability to synthesize in an interdisciplinary manner the notions of aesthetic and functional restorative methods to understand and restore the main functions of the dento-maxillary apparatus: mastication, swallowing, phonation, physiognomic function. • Improving the theoretical knowledge of cavity preparation and cavity filling, by model and phantom preparation. • Acquiring the practical experience needed to use the instruments and different materials to be able to perform coronal restorations.
Transversal competences	• Use of assimilated notions in new contexts. • Applying theoretical notions in the practical work. • Establishing interdisciplinary correlations within studied domains.
General objectives	• Knowledge of the clinical forms of tooth cavities, positive and differential diagnosis, and treatment of a simple tooth cavity.
Specific objectives	• Acquiring the notions of normal and pathological hard tooth structure. • Introduction of the notions of clinical dental examinations to establish a positive diagnosis. • Assimilation of the notions of the differential diagnosis and in which conditions is realised. • Theoretical study of the dentinal plague and its treatment to restore damaged missing tooth structure and DMA functions. • Detailed study of cavity preparation steps and cavity preparation using non-physiognomic materials by working on artificial teeth on model or phantoms. • Detailed study of cavity preparation steps and cavity preparation using physiognomic materials by working on artificial teeth on model or phantoms. • Developing the ability to apply the theoretical knowledge by preparing and filling tooth cavities. • Performing references documentation.

LECTURES	
Teaching methods	• **Lecture, systematic interactive exposure.**
Content	1. Instruments used in the treatment of the carious lesions. Manual and

	rotary instruments used for cavity preparation and cavity filling and for finishing the restoration.
	2. Principles of cavity preparation for amalgam filling. Black classification and Black cavity preparation steps- general notions.
	3. Class I and class II Black cavity preparation. Definition. Cavity preparation steps and instruments used for preparation.
	4. Class III, IV and V Black cavity preparation. Definition. Cavity preparation steps and instruments used for preparation.
	5. Dental amalgam. Amalgam application in tooth cavities. Definition, properties, matrix systems for amalgam filling, cavity preparation steps and amalgam filling phases.
	6. Positive diagnosis of the carious lesions. Performing the subjective, objective, and complementary examinations to establish the positive diagnosis of a simple carious lesion.
	7. Establishing the differential diagnosis of the simple carious lesion.
	8. Clasification of the carious lesions according to its location and depth. Characteristics of the carious lesions according to its location: fissure and pits lesions, smooth tooth surfaces lesions and cervical lesions.
	9. Treatment of the dentinal plague. Temporary filling materials. Materials used for dentinal wound protection depending on the depth of the cavity and depending on the aspect of the dentine located on the cavity floor.
	10. Treatment of the dentinal plague. Pulp capping techniques. Indirect pulp capping: definition, indications, materials used, working technique and follow-up.
	11. Management of the accidental opening of the pulp chamber. Direct pulp capping: definition, indications, materials used, working technique and follow-up.
	12. Principles of cavity preparation for composite resin filling. SISTA classification. SISTA 1 cavities-tooth preparation technique and restauration methods.
	13. SISTA 2 cavities-preparation of tunnel, slot, and hemisphere cavities for SISTA 2.1, 2.2, 2.3, 2.4. SISTA 3-preparation and restauration techniques.
	14. Composite resin materials, adhesive systems, matrix systems used, stratification technique on anterior and posterior teeth.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-Point and interactive presentation, interactive discussions, and filmed demonstrations.
Practical activity carried out by students	• Exercises of instruments recognition and description. • Preparation of different types of Black cavities on model and on the phantom. • Filling the cavities with different materials studied in the lecture. • Preparation of Sista cavities on the phantom and filling the cavities with composite resin.
Content	1. Presentation of the instruments and the devices needed for the treatment of the carious lesion.

	2. Class I Black cavity preparation realized on the model.		
	3. Preparation of reduced class II, class III, and class IV on the model.		
	4. Preparation of class V on the model. Test.		
	5. Application of the cement base and pulp capping on the cavities prepared.		
	6. Filling the cavities on molars with amalgam.		
	7. Preparation of SISTA 1.2 and 2.1- slot and tunnel cavities on the model.		
	8. Preparation of SISTA 2.2 and 3.3 on molars and 2.2, 2.3 on frontals on the model.		
	9. Application of the composite resin on the Sista 2.2 on posterior and Sista 2.3 anterior cavities.		
	10. Preparation of class I, II, V cavities after Black on the phantom.		
	11. Preparation of a MOD cavity on the phantom and filling it with amalgam.		
	12. Preparation of a SISTA 2.4 cavity on the phantom and filling it with composite resin.		
	13. Recap lab.		
	14. Practical exam- cavity preparation on the model, interview.		
Bibliography	1.Summitt J.; Robbins W.; Schwartz R. : Fundamentals of operative Dentistry Ed. Quintessence 2013. 2.Ecaterina Ionescu (coordinator): Manual pentru rezidențiat – stomatologie, Volumul I, Ed.Universitară "Carol Davila", 2021.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**15%**	**15%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	IV Prosthetic Dentistry and Dental Materials
Discipline	Dental Propaedeutics and Esthetics
Cours title	**DENTAL TECHNOLOGY**
Responsible for lecture	**Sef. Lucr. Dr. Cristina Gasparik**
Responsible for practical activity	Sef. Lucr. Dr. Cristina Gasparik Sef lucr. Dr. Alexandru Grecu Asist. Univ. dr. Delia Moise Asist. Univ. dr. Andra Clichici
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	2	4	28	56	66	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of Dental Morphology. • Notions of Chemistry and Physics. • Notions of Dental Technology in Fixed Prosthodontics. • Knowledge of Dental Morphology and Occlusion, ability to do different wax-ups.
Requisites for lectures and practical activities	• Amphitheater with multi-media system for projection • 70% of the lectures - Compulsory presence. • Laboratories with specific dental laboratory equipment for the practical activities; dental simulation units. • 100% of practical activities - Compulsory Presence. • Laboratory coat, medical shoes. • Completion of required practical tasks.

Professional competences	• The ability to use specialized terminology, properly and in context. • The accumulation of basic knowledge related to removable dentures. • Knowledge of technological steps that are used in the dental office and dental laboratory in manufacturing removable and complete dental prostheses. • Acquiring general information regarding complete edentulous patients; partial edentulism classification, consequences, specific treatment of each class of partial edentulism. • Acquiring general principles in making removable partial dentures (RPD) and complete dentures (CD).
Transversal competences	• Ability to use the information in a new context. • Ability to apply the theoretical knowledge on a practical basis. • Ability to establish connection between the studied subjects.
General objectives	• Acquiring information related to specific technological processes involved in the fabrication of most types of removable dentures.
Specific objectives	• Accumulation of basic knowledge related to the examination of edentulous patients. • Acquiring information regarding general steps in the fabrication of complete dentures and removable partial dentures. • Understanding the biomechanical, bio functional and prophylactic principles in making each type of denture.

LECTURES	
Teaching methods	• **Lecture, Systematic and interactive presentation, Inquiry-based learning.**

	• **Oral presentation, PowerPoint and video presentations.**
Content	1. The edentulous patient. Basic notions about the exooral and endooral examination. Denture bearing areas and peripheral seal areas in the maxillary and mandibular arches.
	2. Complete dentures: general principles in the fabrication of CD, components, clinical and laboratory steps in making a complete denture.
	3. Stock trays for preliminary impression. Impression materials, requirements, and fabrication steps of preliminary impressions. The preliminary cast. Materials used for the fabrication of dental casts and fabrication steps.
	4. Custom impression trays. Types of materials used and fabrication steps. Requirements of a functional impression.
	5. The final cast – fabrication techniques, materials, requirements. Fabrication of the occlusal rims. Materials, techniques, requirements. Registration of the maxillo-mandibular relationships and transferring to the articulator.
	6. Fabrication of the waxed-up trial denture. Arrangement of artificial teeth for complete dentures: general principles, individual principles.
	7. Transforming the wax-up denture into the final acrylic denture. Investment. Polymerization of the resin base for a complete denture. Cleaning and finishing the denture. Laboratory steps for relining procedures.
	8. Removable partial dentures (RPD): classification, types, components. Partial edentulous arches: classification, basic information for the intro-oral examination.
	9. The provisional acrylic partial denture: general principles for fabrication and laboratory steps.
	10. RPDs with metal framework - laboratory steps. The fabrication of the diagnostic cast and the survey analysis. Design of the components.
	11. Fabrication of the master cast. Preparing the cast for duplication. Waxing the framework of RPDs.
	12. Transforming the wax pattern into the metal framework. Finishing and polishing of the metal framework of the RPD.
	13. Arrangement of the artificial teeth. Transforming the waxed-up denture into the final denture.
	14. Types of precision attachments used as retainers for RPDs and particularities in the fabrication steps. Overdentures – overview of technological steps.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point and video presentations. • Live practical demonstrations.
Practical activity carried out by students	• 2 preliminary casts, 2 custom trays, 2 occlusal rims, mounting of the casts on an articulator, waxed-up complete denture, Exercises for the classification of partially edentulous arches, 2 survey analyses, 4 block-out and relieving procedures, 4 wax patterns.
Content	1. Introduction to Complete dentures. Preliminary cast fabrication.

	2. Custom tray fabrication.
	3. Fabrication of the master cast Fabrication of the occlusal rims.
	4. Recording of maxillo-mandibular relationships. Mounting of the casts on the articulator.
	5. Fabrication of the wax base for CD. Arrangement of the artificial teeth .
	6. Fabrication of the wax base for CD. Arrangement of the artificial teeth.
	7. Transforming the waxed-up denture into the final acrylic denture. Finishing, polishing.
	8. Introduction into Removable partial dentures fabrication. Classification of partial edentulous arches.
	9. The survey analysis. Drawing the design of the metal framework of RPDs.
	10. Block-out and relieving of the master cast. Preparing the master cast for duplication. Obtaining the duplicated cast. Kennedy Class I and II .
	11. Block-out and relieving of the master cast. Preparing the master cast for duplication. Obtaining the duplicated cast. Kennedy Class III and IV.
	12. Waxing the framework of RPDs in different types of edentulous classes. Kennedy Class I and II .
	13. Waxing the framework of RPDs in different types of edentulous classes. Kennedy Class III and IV.
	14. Revision.
Bibliography	1. Gasparik C. Dental Technology- Course syllabus- Electronic format 2022-23. 2. Ting-Liang Chang, Daniella Orelana, John Beumer III. Kratochvil's Fundamentals of Removable Partial Dentures. 1st Edition. Quintessence, 2018. 3. The Glossary of Prosthodontic Terms: Ninth Edition. J Prosthet Dent. 2017 May;117(5S):e1-e105. doi: 10.1016/j.prosdent.2016.12.001. PMID: 28418832. 4. Alan B. Carr, David T. Brown. McCracken's Removable Partial Prosthodontics. 13th Edition. Elsevier, 2015. 5. Johnson T, Patrick DG, Stokes CW, Wildgoose DG, Wood DJ. Basics of Dental Technology: A Step by Step Approach. Wiley, 2015. 6. George Zarb, John Hobkirk, Steven Eckert, Rhonda Jacob. Prosthodontic Treatment for Edentulous Patients - Complete Dentures and Implant-Supported Prostheses. 13th Edition. Elsevier, 2012. 7. Duncan J. Wood, Tony Johnson. Techniques in Complete Denture Technology. 1st Edition. Wiley-Blackwell, 2012. 8. R. M. Basker, J. C. Davenport, J. M. Thomason. Prosthetic Treatment of the Edentulous Patient. Wiley-Blackwell, 2011.

	9. Rodney D. Phoenix, David R. Cagna, Charles F. DeFreest. Stewart's Clinical Removable Partial Prosthodontics, 4th Edition. Quintessence, 2008. 10. Hugh Devlin. Complete dentures. Springer, 2002.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	25%-

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	5 Internal Medicine
Discipline	Medical clinic IV
Cours title	**INTERNAL MEDICINE**
Responsible for lecture	**Lecturer Călin Vasile Vlad**
Responsible for practical activity	Lecturer Călin Vasile Vlad Lecturer Teodora Gabriela Alexescu Lecturer Assistant Mircea Vasile Milaciu Lecturer Assistant George Ciulei Assistant Professor Vacancy 130 Assistant Professor Vacancy 130
The formative category of the discipline	DD
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	1	2	14	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of anatomy, physiology, physiopathology and biochemistry.
Requisites for lectures and practical activities	• Amphiteheatre with projection system. • Patient rooms with beds.

Professional competences	• Capacity of using the semiologic terminology in specific situations and diagnostic algorithm. • Capacity of communication with the medical community. • Critic evaluation, synthesis of disease manifestations. • Learning the techniques of examining the patient.

	• Gathering experience in using the medical instruments (eg. Stethoscope). • Correct interpretation of paraclinic examinations. • The capacity to integrate the anamnestic findings, the objective data and the paraclinic data in the syndrome diagnosis. • Development of the medical rationale. • Learning notions needed to apply prevention in the stomatology field. • Making the correct diagnosis of an emergency in the stomatology cabinet.
Transversal competences	• Being able to apply the new findings into their future job routine. • Applying the new theoretical knowledge in practical activity. • Making new correlations in various fields.
General objectives	• Presenting the semiology data regarding the symptoms, signs, explorations, in order to create the correct clinical picture and to formulate the correct syndrome diagnosis. • Creation of a precise, consistent and useful medical language.
Specific objectives	• Learning the correct technique of anamnesis and clinical examination, conducting the future investigations and formulating the syndrome diagnosis. • Development of the medical rationale for each case.

LECTURES	
Teaching methods	• **Lecture, Systematic and Interactive Presentation.**
Content	1. Introductory course. General notions of semiotics, symptom, sign, syndrome, diagnosis. Patient records, disease history. Particularities of the anamnesis in dental pathology.
	2. Clinical examination. Methods of examining the patient. Face, attitudes, constitution.
	3. Clinical examination. Skin, mucous and membrane colour changes and lesions; oedema. The importance of clinical examination in dentistry.
	4. Respiratory tract semiotics. Main symptoms: chest pain, dyspnea, cough, expectoration and haemoptysis. Physical examination of the respiratory system. Lab explorations in respiratory diseases.
	5. Respiratory tract semiotics. Pulmonary condensation syndrome. Pleural fluid syndrome. Bronchitis syndrome. Mediasinal syndrome.
	6. Cardio-vascular semiotics. Symptoms: chest pain and vascular pain, cardiac dyspnea, palpitations. Physical examination of heart and vessels. Additional examinations in cardiovascular diseases.
	7. Cardio-vascular semiotics. Coronary syndrome. Valvular syndromes. Heart failure syndromes. Thrombotic syndromes. Rhytm and conduction disorders. Hypertension and hypotension semiology. Shock and syncope.
	8. Reno-urinary semiotics. Main symptoms: pain, reno-uretheral colic, dieresis and micturition disorders. Examination of the urinary

	system. Additional examinations in urinary system diseases.
	9. Reno-urinary semiotics. Nephitic syndrome, nephritic syndrome, renal failure syndrome.
	10. Digestive semiotics. Particularities of the anamnesis in the mouth and throat diseases. Symptoms and signs of special importance for dentists: the oral cavity pain, gum bleeding, halitosis, salivary secretion disturbances, changes of taste. Examination of the mouth.
	11. Digestive semiotics. Esophageal semiotics: symptoms, signs, lab exploration and the esophageal syndrome. Stomach and duodenum semiotics: main symptoms – pain, appetite change, nausea, vomiting. Examination of the stomach and duodenum. Additional explorations. Ulcer dyspepsia. Upper digestive bleeding.
	12. Digestive semiotics. Intestinal semiotics: symptomsand signs – intestinal pain,intestinal obstruction, disorders of transit. Abdominal examination in intestinal diseases. Additional explorations in bowel diseases. Diarrhea syndrome. Constipation syndrome. Acute peritonitis syndrome. Ano-recto-sigmoidian syndrome.
	13. Digestive semiotics. Liver and gallbladder semiotics: symptoms and signs. Physical examination and additional explorations. Jaundice syndrome. Ascites syndrome. Liver failure syndrome. Pancreas and spleen semiotics: pancreatic pain, general examination and additional explorations in pancreas and spleen pathology.
	14. Hematopoietic system semiotics. Symptoms and signs in blood diseases. Sundromes, anemia, bleeding syndrome, myeloproliferative syndrome and importance in dentistry.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical teaching near the patient`s bed.
Practical activity carried out by students	• Anamnesis, Clinical examination, Building a diagnosis.
Content	1. Patient records. Classical examination method, diagnosis of acute or chronic disease and their importance in dental medicine. Anamnesis techniques.
	2. Physical examination techniques: inspection, palpations, percussion and auscultation.
	3. Attitude. Face. Constitutional type. Nutritional status.
	4. Pallor, cyanosis, particularly in the oral mucosa.
	5. Jaundice, dyschromatic features in the oral mucosa. Edema, trophycity disorders, limph node pathology, febrile curve.
	6. Main breathing symptoms. Physical examination of the chest.
	7. Assesement of acute and chronic respiratory diseases. Evaluation of a respiratory emergency – significance for the dentist.
	8. Major cardiac symptoms. Physical examination of heart and vessels.
	9. Diagnosis of cardiovascular emergencies in dental surgery. Complementary methods of investigation: blood pressure

	measurement, electrocardiography.		
	10. Evaluation of a valvular patient – significance for the dental practice. Differential diagnosis significance in the coronary chest pain.		
	11. Esophagus, stomach and bowel symptoms. Physical examination. Dyspeptic syndromes.		
	12. Liver disease, bile duct and pancreatic symptoms and signs; physical exam. Jaundice syndrome, ascites and the liver failure.		
	13. Characteristics of lumbar back pain, micturition and dieresis disorders. Physical examination of the genitor-urinary system.		
	14. Anemic syndrome – signs at the oral cavity. Leukemia syndrome – signs at the oral cavity. Haemostasis assesement. Emergency evaluation of a bleeding syndrome.		
Bibliography	1. The lecture. 2. Sâmpelean Dorel, Vlad Vasile-Călin, coordonatori. Clinical Semiology. First english edition. Editura Bioflux Cluj-Napoca, 2019. 3. D. Sâmpelean, sub redacția. MANUAL DE SEMIOLOGIE pentru Medicina Dentară Ediția a III-a. Ed. Medicală Universitară „Iuliu Haţieganu" Cluj-Napoca, 2018. 4. Macleod's Clinical Examination, 14th Edition. Editors: J. Alastair Innes Anna Dover Karen Fairhurst. 2018. 5. Bates' Guide to Physical Examination and History Taking. Lynn S. Bickley. Lippincott Williams and Wilkins, 2016.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Prevention in Dentistry
Cours title	**ORO-DENTAL PREVENTION (PREVENTIVE DENTISTRY)**
Responsible for lecture	**Lecturer Dr. Andrei Picoș** **Lecturer Dr. Chifor Radu**
Responsible for practical activity	Lecturer Dr. Andrei Picos Lecturer Dr. Iulia Badea
The formative category of	DS

the discipline									
Compulsory discipline				Compulsory					
Year	Sem	hours/week		Hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	2	3	28	42	30	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic knowledge of anatomy, physiology and physiopathology of the oral cavity, dental propaedeutic, cariology • Dental ergonomy, asepsis and aseptic practices.
Requisites for lectures and practical activities	• Amphitheatre with projector system and/or on-line Microsoft Teams. • Laboratories with specific requisites for the practical activities.

Professional competences	• The capacity of utilizing the specialty terminology in an adequate manner and in context. • Obtaining knowledge regarding the examination instruments and the instruments used for performing the dental cleaning (manual and ultrasonic scaling, non-invasive sealing). • Knowing various dental diagnostic methods: clinical methods, visual methods (caries indices), clinical methods (diagnodent) and imagistic methods (radiography). • Obtaining knowledge regarding dental plaque control using different methods. • Knowing international dental indeces (DMF, GI, API, OHI, CPITN,ICDAS). • Perfecting the capacity to apply the theoretical knowledge of caries prophylaxis in a practical manner by working on models (for the sealing procedure) and on clinical cases (for the scaling and topical fluoridation procedure). • Acquiring the necessary practical experience of utilizing the special instruments and armamentarium in order to be able to perform all the methods of caries prevention using different methods and materials.
Transversal competences	• The capacity of employing the learned notions in a new context • To apply the theoretical knowledge in the practical activity • Establishing interdisciplinary correlations between the studied subjects.
General objectives	• Acquiring knowledge of dental pathology prophylaxis for children and adults.
Specific objectives	• Acquiring knowledge of dental prevention for children and adults. • The introduction of dental plaque control notions. • Acquiring knowledge of the auxiliary means of hygiene and personalizing their usage.

	• The diagnosis of the incipient carious lesion. • The in depth study of the systemic fluoridation. • The in depth study of the topical fluoridation and the fluoride products used. • Acquiring notions of cross-infection control in the dental office. • Exercise capacity of synthesis and bibliographical documentation.

LECTURES	
Teaching methods	• **Lecture, interactive, systematic presentation. Oral presentations, Power-Point presentations.**
Content	1. Dental prevention. General aspects.
	2. Patient examination chart.
	3. The cross-infection control in the dental office.
	4. Indices in dental prevention (classification, plaque indices, caries indices, gingival bleeding indices).
	5. Pediatric prevention of dental caries. The mechanical control over the bacterial plaque (Reducing the number of bacteria): Dental brushing and auxiliary means of oral hygiene. - 2 hours.
	6. The chemical control over the bacterial plaque: Toothpaste and other dentifrices.
	7. Increasing the resistance of the dental tissues through systemic and local fluoridation.
	8. Sanitary education divided on age groups. Prenatal and postnatal recommendations. Recommendations for infants and pre-school children. Recommendations for school-aged children once the first permanent teeth appear until the age of 18.
	9. The professional brushing procedure. Indications, technique, precautions. The supra gingival scaling. Supra gingival scaling instruments (manual and mechanical).
	10. The concept of food hygiene and nutritional, caries-preventive food. Nutrients, which contain hidden sugar.
	11. The pits and fissure sealing procedure. Indications, technique, commercial products.
	12. The professional topical fluoridation – Uses of fluoride pharmaceuticals. Commercial products.
	13. Acute and chronic fluoride intoxication. Administration of fluoride pharmaceuticals.
	14. The prophylaxis of the dento-maxillary anomalies. The detection of vicious habits. The preventive attitude towards the orthodontic patient and the patient.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions. Demonstrations on film. Presentations on the model.Demonstrations on the model. Demonstrations on a clinical case.

Practical activity carried out by students	• Completing the medical chart, performing extra-oral and intra-oral examinations, completing the dental chart, calculating the international oral healthindices, manual and ultrasonic scaling techniques, professional brushing technique, preventive sealing technique, fluoride treatments provided in dental offices, preventive dental techniques on the model and clinically on a patient.
Content	1. Clinical examination of the patient. Examination chart.
	2. Preventing the transmission of the infection inside the dental office. Asepsis, antisepsis and disinfection: terminology, sterilization methods, disinfection methods, disinfectant agents and antiseptic agents for dental use. Using the adequate protection equipment for the personnel of the dental office.
	3. Relieving the bacterial plaque and the dental tartar. Plaque relieving substances. Indices (recording technique, estimation formula): OHI-S oral hygiene index, Lange proximal plaque index (API), and tartar surface index.
	4. Assessing the dental status – DMF and dmf, oral hygiene status.
	5. Gingival inflammation indices, periodontal indices (recording technique, estimation formula): SBI index (sulcular haemorrhage), PBI index (papillary bleeding), CPITN(one case). Assessing dental mobility by means of the periotest.
	6. Mechanical and chemical methods in preventing bacterial plaque. Manual dental brushing techniques, mechanical brushing, auxiliary means of oral hygiene. Partial evaluation of the knowledge.
	7. Professional brushing: brushing technique, polishing paste, devices (rubber cups, brushes, discs, dental silk).
	8. Manual scaling: describing and using manual scaling instruments, scaling technique divided on dental groups.
	9. Ultrasonic scaling: indications, contraindications, and technique.
	10. Topical fluoridation procedure. Professional administrations: appearance (varnishes, gels, fluids), administration method, and commercial products.
	11. Detecting the carious lesion by means of the Diagnodent.
	12. Remineralizing the incipient dental caries. Bitewing X-Rays for the assessment of the approximal caries.
	13. Preventive sealing procedure.
	14. Practical exam – The presentation of the dental prophylaxis project + interview.
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19. Zipporah Iheozor-Ejiofor, Helen V Worthington, Tanya Walsh, Lucy O'Malley, Jan E Clarkson, Richard Macey, Rahul Alam, Peter Tugwell, Vivian Welch, Anne-Marie Glenny. "Water fluoridation for the prevention of dental caries". Cochrane Database Syst

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Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**40%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	Oral and Cranio-MaxilloFacial
Cours title	**ANESTHESIA AND SEDATION IN DENTAL MEDICINE**
Responsible for lecture	**Prof. Dr. Rotar Horaţiu**
Responsible for practical activity	Assist. Ostaș Daniel Assist. Țermure Dragoș Assit. Ciurea Mircea Assit. |Muresan Ovidiu
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions	• The anatomy of the head and neck. Physiology.

(Preliminary conditions)	Pathophysiology. General semiology and the dento-maxillary apparatus. Pharmacology. • The ability to analyze anatomo-clinical parameters in the clinical case study. • Critical analysis and interpretation of laboratory analyzes. • Correct writing of therapeutic prescriptions.
Requisites for lectures and practical activities	• Amphitheater with projection system (projector). • Dental offices with dental chairs, salons, intervention rooms.

Professional competences	• The acquisition of theoretical and practical notions of specific examination of the specialty. • The theoretical and practical acquisition of local anesthesia and locoregional anesthesia techniques used in stomatological practice. • Critically analyze and correctly perform the therapeutic management of patients with oral cavity pathologies. • Effectively identify anesthesia techniques related to the patient's conditions. • Be able to correctly interpret the results of certain laboratory analyzes. • Monitor the effectiveness and adverse reactions of the anesthetic techniques applied. • Monitor the treatment of accidents and complications of anesthesia techniques. • To be able to effectively use the sources of information on local anesthesia. • The resolution of clinical practice problems.
Transversal competences	• The use of assimilated concepts in new contexts. • The application of theoretical notions in the practical activity. • Establishing interdisciplinary correlations within the framework of the areas studied. • Have the ability to communicate effectively with the patient. • Demonstrate concerns for professional development through training in analytical and synthetic thinking skills. • Demonstrate involvement in research activities, such as the development of certain scientific articles.
General objectives	• The course offers students of the 3rd year of Dental Medicine of the Faculty of Dental Medicine theoretical notions of local anesthesia and loco-regional anesthesia used in stomatological practice. • The practical work aims to acquire practical notions of specific examination of the specialty; the practical acquisition of locoregional anesthesia techniques used in stomatological practice.
Specific objectives	• The acquisition of practical notions of specific examination of the specialty. • The theoretical and practical acquisition of local and loco-regional

	anesthesia techniques; the acquisition of practical notions of specific examination of the specialty. • Exercising the capacity for synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic presentation, interactive lecture, patient presentation of related cases.**
Content	1. Clinical examination of the patient in oro-maxillofacial surgery: anamnesis, objective local and regional examination.
	2. The particularities of clinical and para-clinical investigations in oral and maxillofacial surgery. The specific diagnostic methods and the integration of the oro-maxillofacial examination in the loco-regional and general examination of the patient.
	3. Assessment of the anesthetic risk. Influence of general diseases on the technique of local anesthesia, the type of anesthetic, the time of anesthesia.
	4. Control and prevention of cross infections in dentistry. Asepsis and Antisepsis in Stomatology and Oromaxillofacial Surgery. The peculiarities of the operating room in stomatology. The peculiarities of the dental office. Sterilization in stomatology. Heat sterilization, gas sterilization, radiation sterilization. Antiseptics and disinfectants: alcohols, halogens, oxidizing antiseptics, acids, phenolic derivatives, biguanidas derivatives, aldehydes, salts of heavy metals, detergents, dyes.
	5. Pain and its neurophysiology. Anatomy of peripheral nerves. Generation of nerve impulses and transmission. Perception of pain Mode and site of action of local anesthetics Kinetics of onset of local anesthesia and duration of action Clinical implications.
	6. Particularities of anesthesia in dentistry. Types of local anesthesia. Topical anesthesia - armamentarium and techniques: Anesthesia using cotton applicators and topical anesthetic substances (gels); Transmucosal diffusion anesthesia; Spray anesthesia.
	7. Local anesthesia by infiltration - armamentarium and techniques: Intramucosal or intradermal anesthesia; Submucosal or subcutaneous anesthesia; Barrage-type anesthesia; Supraperiosteal anesthesia; Intraligamentary anesthesia; Intraosseous anesthesia.
	8. Local and regional anesthesia for the upper jaw. Maxillary nerve blocks: Posterior superior alveolar nerve block ("tuberosity block") (intraoral technique); Block of the anterior superior alveolar nerve (“infraorbital nerve block”) (intraoral and extraoral technique); Large palatal nerve block; Nasopalatine nerve block; Local infiltration of the palate.
	9. Local and regional anesthesia in the mandible. Mandibular nerve blocks: Lower alveolar nerve block (lingula anesthesia, Vasirani-Akinosi technique) (intraoral technique); Lingual nerve block; Mental

	and incisal nerve block (intraoral and extraoral technique).
	10. Local and regional anesthesia in the mandible: Oral nerve block; Masseter nerve block. Simultaneous anesthesias (Gow-Gates; Veisbrem; Ginestet). Technical modifications / variations.
	11. Accidents and complications of local and regional anesthesia. Local accidents of local and regional anesthesia. Local complications of local and regional anesthesia. General (systemic) accidents of local and regional anesthesia.
	12. Special situations. Use of local anesthetics in pediatric dentistry. Anesthesia techniques used in different clinical cases. Ineffective pain control.
	13. Sedation in dentistry. Definitions. Indications and contraindications for sedation. Classes of drugs used in sedation. Levels of sedation. Sedation techniques - classification. Incidents and complications of sedation.
	14. Management of accidental exposure to biological material.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-Point presentations, interactive teaching.
Practical activity carried out by students	• Practical work with the exposure of the maneuvers and techniques of local and loco-regional anesthesia on the mannequin and on patients.
Content	1. The topographical division of the face. The presentation of the superficial and deep regions of the face. The topographical division of the neck; the delineation of the regions, the application of this knowledge in the practice of oro-maxillofacial surgery. The presentation of the topographic anatomy applied to the skull in diagrams.
	2. The anesthetic and surgical access routes to the face and neck areas. Painful sensitivity in the territory of the face and neck. The trigeminal nerve: possibilities of anesthetic approach.
	3. Asepsis and antisepsis in dentistry. Sterilization, preparation of instruments for sterilization. The operating room, preparing the patient and preparing sterile materials for the operation.
	4. The acquisition of local anesthesia techniques in dentistry by ghosts.
	5. The acquisition of locoregional anesthesia techniques in the upper jaw in dentistry by performing them on phantoms.
	6. The acquisition of locoregional lower jaw anesthesia techniques in dentistry by performing them on phantoms.
	7. The acquisition of simultaneous lower jaw anesthesia techniques in dentistry by performing them on phantoms.
	8. The acquisition of local anesthesia techniques in dentistry by performing them on patients.
	9. Acquiring the techniques of locoregional anesthesia in the upper jaw (postero-superior alveolar anesthesia and infraorbital nerve anesthesia) in dentistry by performing them on patients.
	10. The acquisition of techniques of locoregional anesthesia in the upper

	jaw (anesthesia of the large palatine nerve and anesthesia of the nasopalatine nerve) in dentistry by performing them on patients.		
	11. Acquiring the techniques of locoregional lower jaw anesthesia (oral inferior alveolar nerve anesthesia) in dentistry by performing them on patients.		
	12. The acquisition of locoregional lower jaw anesthesia techniques (mental and incisal nerve anesthesia, lingual nerve anesthesia, oral nerve anesthesia) in dentistry by performing them on patients.		
	13. The acquisition of simultaneous lower jaw anesthesia techniques in dentistry by performing them on patients.		
	14. Oromaxillofacial clinical examination. The clinical observation sheet: demonstrations on the observation sheet in patients with different stomatological and maxillofacial pathologies.		
Bibliography	1. Malamed, Stanley F. *Handbook of local anesthesia*. Elsevier Health Sciences, 2020. 2. Barthélémy, Isabelle, et al. *Chirurgie maxillo-faciale et stomatologie: Réussir les ECNi*. Elsevier Health Sciences, 2017. 3. Guide de prise en charge des accidents d'exposition au sang (AES) et des accidents d'exposition au risque viral (AEV). COREVIH-Normandie, 2019. 4. R. Rahn. *Zahnärztliche Lokalanästhesie*. Cevey Concept Communication in Wort und bild; Offenbach am Main, 2003 5. Ileana Mitre, G. Băciuț. Urgențe medico-chirurgicale în medicina dentară. Editura UMF Iuliu Hatieganu 2014. 6. Practice Guidelines for Intravenous Conscious Sedation in Dentistry. Anesth Prog 65:e1–e18 2018. 7. Ashley PF, Chaudhary M, Lourenço-Matharu L. Sedation of children undergoing dental treatment. Cochrane Database of Systematic Reviews 2018, Issue 12. Art. No.: CD003877. DOI: 10.1002/14651858.CD003877, pub5. 8. Green et al. Fasting and aspiration prevention for procedural sedation Anaesthesia 2020, 75, 374–385.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	7 Surgery

Discipline				Surgery clinic IV					
Cours title				**GENERAL SURGERY. ANESTHESIA and INTENSIVE CARE**					
Responsible for lecture				**Assoc. Prof. Dr. Sorin T. Barbu**					
Responsible for practical activity				Lecturer Dr. Traian Oniu Asist. Dr. Emilia Patrut Asist. Dr. Gabriel Petre					
The formative category of the discipline				DD					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		Hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Students attending the course need to have successfully accomplished the courses of pathology, physiopathology and medical semiology.
Requisites for lectures and practical activities	• Students must be in time for the lectures. Use of mobile phone during the lectures is not accepted, being a disruptive issue. • Students must be in time for the clinical practice sessions. Use of mobile phone during the sessions is not accepted, being a disruptive issue.

Professional competences	At the end of the course, students are expected to be able to: • demonstrate in depth knowledge of surgical semiology, starting with asepsis and antisepsis, hemorrhage and hemostasis, treatment of wounds and surgical infections, first aid maneuvers in trauma, burns, fractures, and ending with hemorrhagic shock and cardiovascular resuscitation. • to discuss general notions about local, regional, general anesthesia, organ transplants, general oncology and principles of surgical treatment in cancer. Students who successfully complete the second part of the course (surgical diseases), are expected to be able to: • demonstrate the clinical skills and methods required to clinically define common surgical diseases. Students will have the ability. • to adopt a problem solving approach to common surgical diseases. At the end of the Clinical Practice, students are expected to be able to present, discuss in detail (indications, technique, accidents, complications) and to perform: • injections, bandages, wound dressing, urinary bladder

	catheterization, gastric tube insertion, pleural and peritoneal punctures, biopsies. • first aid maneuvers in trauma, wounds, fractures, burns, surgical infections. • demonstrate appropriate skills to conduct comprehensive clinical examination of surgical patients. • demonstrate the appropriate ways to identify physical signs of common surgical diseases. • formulate a reasonable differential diagnosis of surgical problems based on history and physical examination. • demonstrate a basic knowledge of common and urgent surgical problems.
Transversal competences	• Theoretical notions and practical maneuvers learned during the General Surgery course and practical sessions will be used in future disciplines, specifics for dental medicine (maxillo-facial surgery, anesthesiology, internal medicine). • Correlations between different clinical courses are expected to be established. • Skills for communication with the patient. • Skills for examination of a patient. • Appropriate use of information technology for obtaining medical information. • Involvement in research activities (e.g. writing a medical paper).
General objectives	At the end of the course, students are expected to be able: • to demonstrate in depth knowledge of surgical semiology. • to demonstrate the clinical skills and methods required to clinically define common surgical diseases. • students will have the ability to adopt a problem solving approach to common surgical diseases.
Specific objectives	At the end of the course, students are expected to be able to: • demonstrate in depth knowledge of surgical semiology, starting with asepsis and antisepsis, hemorrhage and hemostasis, treatment of wounds and surgical infections, first aid maneuvers in trauma, burns, fractures, and ending with hemorrhagic shock and cardiovascular resuscitation. • to discuss general notions about local, regional, general anesthesia, organ transplants, general oncology and principles of surgical treatment in cancer. Students who successfully complete the second part of the course (surgical diseases), are expected to be able to: • demonstrate the clinical skills and methods required to clinically define common surgical diseases. Students will have the ability. • to adopt a problem solving approach to common surgical

	diseases. At the end of the Clinical Practice, students are expected to be able to present, discuss in detail (indications, technique, accidents, complications) and to perform: • injections, bandages, wound dressing, urinary bladder catheterization, gastric tube insertion, pleural and peritoneal punctures, biopsies. • first aid maneuvers in trauma, wounds, fractures, burns, surgical infections. • demonstrate appropriate skills to conduct comprehensive clinical examination of surgical patients. • demonstrate the appropriate ways to identify physical signs of common surgical diseases. • formulate a reasonable differential diagnosis of surgical problems based on history and physical examination. • demonstrate a basic knowledge of common and urgent surgical problems.

LECTURES	
Teaching methods	• **Theoretical lectures are exposed as Power Point interactive presentations, in a problem-based approach. Short videos illustrating maneuvers or surgical techniques may be inserted into the presentation.**
Content	1. Asepsis and antisepsis; sterilization, disinfection and operating room set-up. Wounds and wound healing. Skin and subcutaneous tissue wounds.
	2. Hemorrhage, hemostasis. Blood products and transfusion. Shock and metabolic response to injury.
	3. I.V. Fluids and acid base disorder; Nutrition of the surgical patient. Cardio-pulmonary resuscitation.
	4. Introduction to Anesthesiology (local, regional and general anesthesia).
	5. Surgical infections and antibiotics. Injuries due to burn; Fractures.
	6. Introduction to mechanisms of trauma and treatment. Specific organ trauma.
	7. Principles of surgical oncology. Organs and tissues transplantation.
	8. Surgical diseases of the thyroid (tiroiditis, goiter, cancer of the thyroid). Breast cancer. Acute mastitis.
	9. Vascular surgical diseases: a - arteries (atherosclerotic disease, acute ischemia); b - veins (varicose veins, acute thrombosis) Abdominal wall hernias.
	10. Acute and chronic abdominal pain; Peritonitis. Intestinal occlusion. Acute appendicitis.
	11. Surgical diseases of the oesophagus (achalasia, esophageal cancer,

	hiatal hernia). Surgical diseases of the stomach: peptic ulcer disease – complications. gastric cancer. Gastrointestinal hemorrhage (upper and lower).
	12. Surgical diseases of the liver (hydatid cyst, liver tumors). Biliary stones; biliary obstruction. Obstructive jaundice.
	13. Pancreatic diseases (acute and chronic pancreatitis, pancreatic cancer). Surgical diseases of the colon and rectum (ulcerative colitis, colorectal cancer). Perianal diseases (hemorrhoids, fistula in ano, perianal abscesses).
	14. General Urology. Urinary infections; renal stones, renal cancer.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical demonstration with interactive discussions.
Practical activity carried out by students	• Students will have to recognize surgical instruments, to perform wound dressing and bandages, sutures and all maneuvers demonstrated by instructor on a mannequin.
Content	1. Asepsis and antisepsis; sterilization, disinfection and operating room set-up. Surgical equipment, the operating room. Surgical instruments. Wound dressing technique. Bandages.
	2. Surgical suture; suture materials. Wounds treatment. Hemorrhage, hemostasis. Blood products and transfusion.
	3. Injections; venous catheterization; perfusions; I.V. Fluids and solutions. How to take blood and urine samples for laboratory tests.
	4. Local anesthesia (drugs, technique); Regional anesthesia; Oxygen-therapy; tracheal intubation; tracheostomy.
	5. Surgical infections treatment – surgical drainage, percutaneous drainage. First aid measures in burns and trauma.
	6. Cardio-pulmonary resuscitation (basic life support) Enteral and parenteral nutrition in the surgical patient – indications, technique, complications.
	7. First aid treatment in fractures.Gastric drainage, gastric lavage. Urinary bladder catheterization.
	8. Rectal examination; enemas. Pleural puncture and pleural drainage.
	9. Peritoneal puncture – examination of the peritoneal liquid. Biopsies.
	10. Monitoring of the surgical patient in critical condition. Postoperative complications in surgery.
	11. Laboratory and imagistic methods used in surgical patients.
	12. Taking history and performing a physical examination in a surgical

	patient. 13. Formulating a diagnosis according to the physical examination results, and laboratory and imagistic findings. 14. Taking history and performing a physical examination in a surgical patient. Formulating a diagnosis according to the physical examination results, and laboratory and imagistic findings.
Bibliography	1. David L Dunn et all, editors. Schwartz's Principles of Surgery, 11th Edition. New York: Mc Graw Hill, 2019. 2. Bongard FS, Stamos MJ, Passaro E Jr, editors. Surgery: A Clinical Approach. New York: Churchill – Livingstone, 2017. 3. Greenfield LJ, Mulholland editor. Greenfield's Surgery: scientific principles and practice (monografie pe CD-ROM). LWW 2016. 4. Sabiston DC Jr, editor. Sabiston Textbook of Surgery, 17th edition. Philadelphia: W B Saunders Company, 2007. 5. A. Agarwal, N. Borley, L. McLatchie editors. Oxford Textbook of operative Surgery. Oxford University Press, 2017.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**30%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Community medicine
Discipline	Hygiene
Cours title	**HYGIENE**
Responsible for lecture	**Prof. Dr. Lucia Lotrean**
Responsible for practical activity	Prof. Dr. Monica Popa Prof. Dr. Lucia Lotrean Lecturer Dr. Bogdana Năsui
The formative category of the discipline	DD
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions	-

(Preliminary conditions)	
Requisites for lectures and practical activities	• Use of mobile phone during the lectures is not accepted, being a disruptive issue. • Students must be in time for the lectures. • Use of mobile phone during the practical activities is not accepted, being a disruptive issue. • Students must be in time for the practical activities.

Professional competences	• Critical analyses of the quality of the environment from medical institutions (water, air, surfaces) in relationship with the main health risks for the patients and the health staff from medical institutions in the field of dentistry. • Efficient use of measures for prevention and control of nosocomial infections through appropriate management of the environmental factors from dental medical institutions (microbiological contamination of air and surfaces, hygiene conditions and functional structure, water use in dental practice, management of solid and liquid waste resulting from medical activities) and medical staff hygiene. • Correct interpretation and use of the knowledge of human nutrition (diet, food products, health status) with a special focus on the oral health. Teaching patients about healthy nutrition and healthy lifestyle.
Transversal competences	• Skills for communication with patients. • Involvement in research activities (e.g. writing a medical article). • Appropriate use of information technology for medical information. • Awareness and involvement in pro-ecological activities associated with preventive medicine.
General objectives	• At the end of the courses the students will be capable to design, use and justify in a correct manner measures for health promotion and disease prevention in the dentistry field both at individual and community level.
Specific objectives	• At the end of the courses the students will be capable to: o To explain the complex relationship between environmental pollution and population health. o To identify correctly health dangers from the environment and dental medical institutions and to categorise them (physical, chemical, biological, irradiation dangers). o To use the principles of food and nutrition hygiene (diet, food products, relationship with health) in the dentistry field. o To propose and justify recommendations for prevention and control at individual and population level in order to minimise the risk on human health, with a special focus on oral health.

LECTURES	
Teaching methods	**Lecture, interactive presentation** **Oral presentations, power point presentations**

Content	1. The objective and the role of Hygiene- essential component of Primary Assistance of Health. The concept of health and prophylaxis in dentistry.
	2. Assessment of the infectious and chemical risk in dental practice.
	3. Physical dangers- ionising radiations: sources, ways of exposure and effects on human health. Prophylaxis measures.
	4. Physical dangers- non-ionising radiations: sources, ways of exposure and effects on human health. Prophylaxis measures.
	5. Toxicology of the environment in dental practice. Risks on human health- Heavy metals.
	6. Toxicology of the environment in dental practice. Risks on human health- synthetic chemical compounds.
	7. Fundamental conditions of the human habitat hygiene in the medical field.
	8. Indoor pollution in relation with human health.
	9. Chemical dangers generated by water consumption and their effects on oral health**.**
	10. Microbiological dangers generated by water consumption and their effects on oral health**.**
	11. Alimentary behaviour and the nutritional requirements at individual level.
	12. The study of nutrients and the relationship between nutrition and oral health.
	13. The diet and the carries: the role of macro and micronutrients in the development of carries.
	14. The diet and the carries: vulnerable population groups. Prophylaxis and control measures at population level.
PRACTICAL ACTIVITIES	
Teaching methods	• Power point presentation. Interactive teaching. Practical demonstration. Observations based on medical articles. Recorded demonstrations • Exercises for risk assessment. Presentation of questionnaires.
Practical activity carried out by students	• Exercises for assessing and characterization of the microclimate in medical institutions in relation with human health. • Identification of the danger from dentistry medical institutions in relationship with the presented situations, use of appropriate measures for prophylaxis and control. • Practical exercises for assessment of active Chlorine in the lab and in the field (with a portable device). • The use of questionnaires and assessment of the risk for oral health. • Performing of food intake assessment , identification of dangers, use of appropriate measures for prophylaxis for carries through diet and alimentary habits

Content	1. Assessment of microclimate conditions in medical institutions and their relationship with human health. Norms and recommendations in medical institutions.
	2. Case study regarding the microclimate conditions in dentistry medical institutions.
	3. Assessment of air and surfaces contamination in dental practice. Measures for prophylaxys and control. Legislative measures.
	4. Study case regarding the risks of contamination of air and surfaces in dental practice .
	5. Hygiene of dental institutions: equipment, functionality, medical staff hygiene.
	6. Hygiene of dental medical institution: legislative issues. Measures for safety in dental practice.
	7. Solid waste from medical practice: classification, origin, risks of exposure, management, legislative measures.
	8. Liquid waste from medical practice: classification, origin, risks of exposure, management, legislative measures.
	9. Antiseptics and disinfectants: definition, classification, conditions for use, indications and contraindications in dental practice.
	10. The active chlorine - indicator of the disinfectant potential of disinfectant chlorine based substances in dental practice.
	11. The water from medical institutions: type, nature, origin and evaluation of risks.
	12. Study case regarding the role of water from dental institutions in relation with human health.
	13. Methods for assessment of food intake at individual and group level with applications in the field of dentistry.
	14. Study case: quantitative and qualitative assessment of the diet of a children group in relationship with the risk for caries.
Bibliography	1. Popa Monica. Environmental Hygiene - Practical Guide for Medical Students Editura Medicală Universitară „Iuliu Haţieganu” Cluj-Napoca, 2018, 150p. 2. Popa Monica «Food Hygiene - Textbook for Medical Students», Editura Medicală Universitară „Iuliu Haţieganu” Cluj-Napoca, 2016, ISBN 978-973-693-672-2. 3. Popa Monica «Environmental Hygiene - Textbook for Medical Students», Editura Medicală Universitară „Iuliu Haţieganu” Cluj-Napoca, 2016, ISBN 978-973-693-671-5. 4. Sîrbu Dana, Curșeu Daniela, Popa Monica – „Igienă – suport de curs pentru studenții Facultății de Medicină Dentară”, Editura Medicală Universitară „Iuliu Haţieganu” Cluj-Napoca, 2014, ISBN 978-973-693-563-3. 5. Wood P.R. - "Cross Infection Control in Dentistry. A practical Illustrated guide" Wolfe Publishing Ltd, 1992. 6. Yassi A., Kjellstrom T., de Kok T., Guidotti T.L. - "Basic environmental health", Oxford Univ. Press, 2001.

	7. Hygiene – Lecture and practical activities - updated materials in electronic format.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50 %**	**50 %**	

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Prosthetic Dentistry
Cours title	**PROSTHETIC DENTISTRY**
Responsible for lecture	**Assoc Prof. Dr. Andrea Chisnoiu**
Responsible for practical activity	Assoc Prof. Dr. Andrea Chisnoiu Assist. Dr. Roxana Triștiu Assist. Dr. Manuela Taut
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	2	4	28	56	66	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the morphology of the teeth and dental arches. • Knowledge of the technology needed in order to achieve single-tooth fixed prosthetic crowns (from preclinical years).
Requisites for lectures and practical activities	• Amphitheater with computer and projector system • Laboratories with simulators, dental micro-motors and hand pieces

Professional competences	• Clinical evaluation of patients with dental crowns destructions. • Correct interpretation of additional elements provided by complementary examinations (especially for substitution crowns). • Knowledge of all types of single tooth fixed prosthesis: by reconstruction method, coverage and substitution method. • Acquiring general knowledge of the maxillary system which provides information needed for the design of single-tooth fixed prosthesis type

	indicated in the treatment plan. • Knowledge of the clinical and technical stages for the execution of a single-tooth fixed prostheses.
Transversal competences	• The use of the notions acquired in different clinical situations. • Application of the theoretical knowledge in practice. • Establish interdisciplinary correlations allowing a complete treatment of clinical cases, according to current aesthetic and functional requirements.
General objectives	• Knowledge of all types of single-tooth fixed prosthesis (reconstitution, coverage and substitution) and gaining the necessary practical skills for tooth preparation for each type of dental crown.
Specific objectives	• Knowledge of the objectives and contingencies in fixed prosthodontics. • Study of dental crowns destructions that may benefit from treatment with single-tooth fixed prosthetic crowns. • Presentation of general principles: ergonomic, biomechanical and bio-functional for single-tooth fixed prosthetic crowns. • Presenting all types of single-tooth fixed prosthetic crowns: rebuilding and replacement coverage. • Knowledge of all maneuvers included in the clinical and laboratory sequence for the execution of single-tooth fixed prosthetic crowns. • Winning the necessary practical skills for tooth preparation, taking into account the general principles of preparation: ergonomic, biomechanical and bio-functional (through dental preparations in the laboratory, on simulators). • Practicing the ability of synthesis and reference documentation.

LECTURES	
Teaching methods	• **Lectures, systematic oral presentation, interactive discussions.**
Content	1. Dental prosthetics: contents, objectives. Destructions of dental crowns: etiology, symptoms, clinical exam, diagnostic, evolution and complications. Clinical forms.
	2. General notions about prosthetic treatment in crown destruction. Classification of single-tooth crowns. Basic principles in the preparation of teeth (ergonomic, biomechanical and bioprofilactic).
	3. Crown restoration by inlay (indications, contraindications, advantages, disadvantages). Preparing teeth for inlays. Accidents and complications after the application of inlays.
	4. Tooth preparation in the cervical area: level of the cervical limit of the preparation; configuration of the preparation limit. Access techniques to the under-gingival limits.
	5. Dental crowns (indications, contraindications, advantages, disadvantages). Monolithic crowns. Preparing teeth to for monolithic crown. Errors, accidents, complications.

	6. All ceramic dental crowns. Ceramic crown: advantages, disadvantages. General principles in preparing teeth for full ceramic crowns. Full ceramic systems. Choosing dental colors.
	7. Polymeric dental crowns. Veneering of the teeth: indications, contraindications, advantages, disadvantages. Preparation for veneers.
	8. Mixed crowns: indications, contraindications, advantages, disadvantages. Preparing teeth to achieve mixed crown covering. Types of mixed crowns.
	9. Impression taking. Materials. Techniques.
	10. Provisional crowns: objective classification. Prefabricated temporary crowns and made. Testing and adaptation of crown cover.
	11. Monolithic partial crown = metallic onlay: indications, contraindications, advantages, disadvantages. Onlay preparation.
	12. Esthetic partial crowns. Partial crowns and adhesive bridges.
	13. Crown substitution: indications, contraindications. Teeth preparations. Reconstructions with metallic and carbon fiber post-and-cores and composite resins. Sample and cementing posts.
	14. Crown cementation. Complication after cementing single-tooth fixed prosthetic crowns. Damage, repair and removal of single-tooth fixed prosthetic crowns.
PRACTICAL ACTIVITIES	
Teaching methods	• Information upon the maneuvers to be executed; conversation, video and picture illustration, demonstrations of the tooth preparation maneuvers.
Practical activity carried out by students	• Preparation of the required teeth on models/simulators, in order to apply a particular type of single-tooth fixed prosthetic crown. • Impression taking and discussions over impressions. • Examination of complete arch and partial impressions; Clinical examination carried out among students.
Content	1. Knowledge of examination and burs. Work safety instructions. Training for use of simulators and lab motors. Distribution of the models.
	2. Preparation of M3 for monolithic crown, vertiprep.
	3. Preparation of M2 for a monolithic crown (chamfer).
	4. Preparation of M1 for partial crown (overlay). Test 1.
	5. Preparation of M1for different types of inlays, endocrown, tabletop.
	6. Preparation of PM2 for a monolithic ceramic crown.
	7. Preparation of PM2 (without adjacent teeth) for a metal-ceramic crown.
	8. Preparation of PM1 (with adjacent teeth) for a metal-ceramic crown.
	9. Preparation of CI for full ceramic crown with stratification.
	10. Preparation of LI for veneers. Test 2.
	11. Preparation of PM1 for an all ceramic crown, stratified systems.
	12. Preparation of C for a substitution crown (cast post and core).
	13. Presentation of clinical stages for dental crown replacement. Partial

	and full arch impressions (dental office). Patient clinical examination.		
	14. Preparation of practical examination. Revising the knowledge and rotary instruments.		
Bibliography	1. Shilligburg T.H., Hobo S., Whitsett L.D ,,Fundamentals of fixed prosthodontics" Fourth edition. Quint. Publ. Co. Chicago-Tokyo, 2012. 2. Rosenstiel S.F., Land M.F., Fujimoto J. ,,Contemporary fixed prosthodontics", Fifth edition.Mosby Co: St.Louis, 2016. 3. Essentials of Esthetic Dentistry-Smile Design integrating esthetics and function,vol.two.2016, Jonathan B. Levine DMD, Elsevier, ISBN: 9780723435556. 4. Heasman P. Master dentistry - Restorative Dentistry, Paediatric Dentistry and Othodontics. Third Edit. Churchill Livingstone Elsevier; 2012. 5. Wassell R, Nohl F. Extra-Coronal Restorations; Concepts and Clinical Application. Second. Springer International Publishing; 2019. 459 p. 6. Ritter A, Boushell L, Walter R. Sturdevant's Art and Science of Operative dentistry. Seventh. Elsevier, editor. St. Louis Missouri; 2019. 7. Ricketts D, Barlett D. Advanced Operative Dentistry. Edinburgh: Elsevier Churchill Livingstone; 2011. 8. Dubal R, Buth S. Practical prosthodontics for the dental team. BDJ Team. 2016;3(2):8–10.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**40%**	**50% from practical exam grade**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	II- Functional sciences
Discipline	Pharmacology
Cours title	**PHARMACOLOGY**
Responsible for lecture	**Lect. Dr. Ștefan Vesa**
Responsible for practical activity	Lect dr. Maria Neag Lect dr. Octavia Sabin Lect dr. Armean Sebastian Assist dr. Crăciun Cristian Assist dr. Sabina Istrătoaie
The formative category of the discipline	DF

Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of phisiologic signaling by edogenous molecules. • Essential knowledge of microbiology. • Knowledge on phisiological mechanisms.
Requisites for lectures and practical activities	• Attendance at the course will strictly comply with the provisions of the Faculty's didactic activity regulations. • Unjustified lateness of students to classes and practical work will not be tolerated as it proves disruptive to the educational process and will not be motivated. • Students will attend classes/practical work with their mobile phones turned off. Telephone conversations during the course will not be tolerated, nor will students leave the lecture hall to answer personal telephone calls. Food and drinks are not allowed during the course/practical sessions. • Attendance at the practical activities will strictly comply with the provisions of the Faculty's didactic activity regulations. • Students must wear white coats and have a notebook for practical work. • Each student must fill in his portfolio and the practical skills notebook edited by the faculty with the specific data. • Students' attire must be decent and respect the environment in which practical work is carried out.

Professional competences	• To know the general aspects related to the medicine. • To know and correctly prescribe pharmaceutical forms. • Write a recipe correctly. • To effectively use information sources on medicines.
Transversal competences	• To have the ability to communicate effectively with the patient. • To demonstrate concern for professional improvement, by training critical thinking skills. • To show interest in professional training, consulting bibliographic sources. • To demonstrate involvement in research activities, such as the development of scientific articles. • To demonstrate the ability to use digital means for medical information and communication. • Demonstrate ability and concern for professional collegial communication. Demonstrate a concern for teamwork to complete a

	project.
General objectives	• At the end of the course, students must form an information core regarding: aspects related to medicine; the regulations at national and international level; general aspects of pharmacokinetics, pharmacodynamics, the drugs that are most frequently used in dentistry; rules for prescribing antibiotics, analgesics and anesthetics.
Specific objectives	• At the end of the course students will be able to: • To know the importance of establishing the major criteria for drug effectiveness and the benefit/risk ratio. • To know the pharmacokinetic-pharmacodynamic model. • To establish the criteria for selecting drugs according to the therapeutic objective. • To know the principles of therapeutic strategy in the treatment with antibiotics, analgesics, anesthetics and other specific drugs.

LECTURES	
Teaching methods	
Content	1. General pharmacology. General pharmacocynetics - part 1.
	2. General pharmacology. General pharmacocynetics - part 2.
	3. General pharmacology. General pharmacodynamics and signaling systems (eg. Colinergic and adrenergic vegetative nervous system, organization and drugs that act on this level).
	4. Chemotherapy: Antibiotics (1), regulations for prespcription.
	5. Chemotherapy: Antibiotics (2) and antiseptics.
	6. Chemotherapy: Antifungal, antiviral, anticancerous.
	7. Central nervous system: general anesthetics (principles) + anxiolytics, sedatives (medication for conscious sedation).
	8. Pain treatment: local anesthetics and local anesthetic adjuvants.
	9. Pain treatment: paracetamol, NSAIDs, opioids (principles).
	10. Inflammation: NSAIDs and glucocorticoids, immunomodulators, antihistamines.
	11. Respiratory: bronchial asthma and immuno-allergic adverse reactions, emergencies.
	12. Cardio-vascular medication, Antiplatelet agents, anticoagulants, hemostatics.
	13. Gastrointestinal medication and diabetes.
	14. Agents that affect bone density (osteoporosis) Medicines that affect oral health. Adverse drug reactions with repercussions in the oral cavity.
PRACTICAL ACTIVITIES	
Teaching methods	
Practical activity carried out by students	

Content	1. General information about the medicine. Information sources on medicines. ATC classification of drugs. Original and generic drugs.		
	2. Pharmaceutical forms. Classification of pharmaceutical forms according to the state of aggregation.		
	3. Pharmaceutical forms. Forms specific to dental medicine. Routes of drug administration.		
	4. Medication history.		
	5. Doses and dosage.		
	6. Medical prescription. Exercises in writing typical recipes.		
	7. Informing patients about the treatment. Treatment compliance (exercises to increase compliance using insulin and glucocorticoid administration scenarios).		
	8. Pharmacovigilance.		
	9. Anti-infective therapy (1).		
	10. Treatment of pain in dental medicine Non-steroidal anti-inflammatories. Opioid analgesics.		
	11. Local and general anesthetics in dental medicine.		
	12. Management of emergencies in the dental office: emergency medicine kit, (lipothymia, allergic reactions, angina pectoris, hypoglycemia, epileptic seizures, HTN emergencies.		
	13. Antiaggregants and anticoagulants in relation to bleeding interventions in the dental office.		
	14. Adverse reactions specific to dental medicine.		
Bibliography	1. Anca Dana Buzoianu – Farmacologie, vol I, Ed. Medicală Universitară „Iuliu Haţieganu" Cluj-Napoca, 2017. 2. Buzoianu Anca Dana – Farmacologie, vol II, Ed. Medicală Universitară „Iuliu Haţieganu" Cluj-Napoca, 2006. 3. V. Stroescu – Bazele farmacologice ale practicii medicale. Ed. Medicală, Bucureşti 2001. 4. Karen Whalen PharmD – Lippincott Illustrated Reviews: Pharmacology- Seventh, North American Edition, 2018. 5. Katzung BG. – Basic and Clinical Pharmacology (14th ed) Mc Graw Hill 2017. 6. Rang HP, Dale MM et al. Pharmacology 8th ed., Elsevier Churchill Livingstone, 2015. 7. Goodman and Gilamn's Manual of Pharmacology and Therapeutics, 13 th ed, Mc Graw Hill Publishing, 2017. 8. Karila L- Le Book des ECN. Editia în limba română. Ed. Medicală Universitară „Iuliu Haţieganu" Cluj Napoca, 2011. 9. Buzoianu Anca Dana – Farmacologie vol I. Ed. Medicală Universitară „Iuliu Haţieganu" Cluj, 2002. 10.I. Fulga. Farmacologie, Ed Medicala, Bucuresti, 2004.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**30%**	

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Odontology, Endodontics and Oral Pathology
Cours title	**ENDODONTICS**
Responsible for lecture	**Assoc. Prof. Ada Delean**
Responsible for practical activity	Assist. Dr. Corina Ionescu Assist. Dr. Lucia Dumitrașcu Assist. Dr. Mihai Merfea
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	2	4	28	56	41	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	Notions of anatomy and histology of teeth and pulp, notions of physiology and physiopathology of dental pulp, notions of pathological anatomy.
Requisites for lectures and practical activities	Amphitheater with projection system. Laboratories with specific facilities for the practical courses.

Professional competences	• The ability to use the terminology as appropriate and in the context. • Understanding the notions of morphology and physiology of dental pulp. • Understanding the notion of etiopathogenesis, pathophysiology and dental pulp morphopathology. • The ability to synthesize the notions of subjective and objective examination of the patient to establish a correct diagnosis in the case of pulp inflammation. • Acquiring the notions of isolation of the operator field in endodontics. • Understanding the concepts of manual, rotary and antiseptic root canal treatment. • Understanding the notions of root canal filling. • Improving the rendering capacity, by modeling, of the theoretical and practical knowledge of pulp inflammation and its treatment.

	• Acquiring the necessary practical experience for the use of specialized instruments to achieve the correct endodontic treatment.
Transversal competences	• Use of assimilated notions in new contexts. • Applying theoretical notions in practical work. • Establishing interdisciplinary correlations within studied domains.
General objectives	• Knowing some notions of morpho physiology and inflammation of the dental pulp and the means of treatment necessary for these diseases.
Specific objectives	• Acquiring the notions of morpho physiology and inflammation of the dental pulp. • The ability to establish a correct diagnosis of inflammatory diseases of the dental pulp by knowing the subjective and objective signs of these diseases. • Detailed study of manual and rotary root canal treatment. • Detailed study of root canal irrigation principles and application of antiseptic medication. • Detailed study of the root canal filling. • Acquiring the knowledge of the instruments used in endodontics, their characteristics and how to use them. • Deactivation of instrumentation capacity and root canal filling. Practical exercise on extracted teeth. • Exercise of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive exposure** • **Oral displays, Power-Point presentations.**
Content	1. Endodontic anatomy: dental pulp structure, root canal configuration, notions of curvature, physiological and pathological changes of the endodontic space.
	2. Pulp inflammation: etiopathogenesis, pathophysiology of pulp inflammation, classification of pulp inflammation, reversible pulpitis.
	3. Pulp Inflammation: Acute and Chronic Pulpitisis: Subjective signs, objective signs, treatment plan.
	4. Isolation of the operation field in endodontics: rubber dam system, components, application techniques, advantages.
	5. Possibilities of preserving the dental pulp vitality: vital pulpotomy, indications, technique, materials.
	6. Endodontic instruments: description, mode of use.
	7. Preparation of the access cavity: instruments used, objectives, pre-endodontic reconstruction, access cavity preparation on frontal teeth.
	8. Preparation of the access cavity: access cavity preparation on premolars and molars.
	9. Manual root canal preparation: catheterization of the root canals, determination of the working length of the root canal: , working length determination devices, principles of operation.

	10. Manual preparation of the root canal: manual instruments, principles of the step-back preparation technique.		
	11. Rotary root canal preparation: rotary instruments, continuous rotation techniques.		
	12. Antiseptic treatment of the root canal: root canal irrigation: principles, irrigation solutions.		
	13. Root canal obturation: materials used, properties, preparation.		
	14. Root canal filling: cold lateral gutta percha condensation technique.		
PRACTICAL ACTIVITIES			
Teaching methods	• Power-point interactive teaching presentations.		
Practical activity carried out by students	• Exercises of applying the rubber dam system on artificial arches. • Exercises to recognize the instruments and how to use them. • Access cavity preparation. • Exercises of catheterization of the root canal and real working length determination, root canal preparation, and root canal filling.		
Content	1. Rubber dam system: presentation of the component elements and application techniques on the dental arches.		
	2. Instruments used for the endodontic treatment. Making radiographs of teeth to be used for endodontic treatment Analyzing X-rays.		
	3. Creating the access cavity to the monoradicular teeth and premolars.		
	4. Access cavity preparation on inferior and superior molars.		
	5. Catheterization of the root canals in the monoradicular teeth and determination of the real working length by radiological examination and the use of the electronic apex locator.		
	6. Mechanical and antiseptic root canal treatment on frontal teeth.		
	7. Mechanical and antiseptic root canal treatment on premolars.		
	8. Endodontic treatment of frontal teeth and premolars- recap.		
	9. Mechanical and antiseptic root canal treatment on maxillary and mandibular molars.		
	10. Rotatory root canal preparation on monoradicular teeth.		
	11. Rotatory root canal preparation on pluriradicular teeth.		
	12. Performing the endodontic filling by cold lateral condensation at the frontal teeth and premolars.		
	13. Performing the endodontic filling by cold lateral condensation at the molars.		
	14. Endodontic treatment –recap.		
Bibliography	1. Louis H. Berman & Kenneth M. Hargreaves- Cohen's Pathways of the Pulp, 12th Edition, 2020. 2. Sanda Cîmpean –Ghid practic de Odontologie si Endodonție, Editura Medicala Universitara "Iuliu Hatieganu" Cluj-Napoca 2012 3. Arnaldo Castellucci – Endodontics – 2018.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**

Percent of the final grade:	60%	30%	10%

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Prevention in Dentistry
Cours title	**ORO-DENTAL PREVENTION (PREVENTIVE DENTISTRY)**
Responsible for lecture	**Lecturer Dr. Chifor Radu** **Lecturer Dr. Iulia Badea**
Responsible for practical activity	Vacant 8 – Assistant professor Lecturer Dr. Iulia Badea Lecturer Dr. Andrei Picos
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	2	3	28	42	55	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic knowledge of anatomy, physiology and physiopathology of the oral cavity, dental propaedeutics. • Ergonomics in dentistry.
Requisites for lectures and practical activities	• Amphitheatre with projector system and/or on line. • Laboratories with specific requisites for the practical activities.

Professional competences	• The capacity of employing the specialty terminology in an adequate manner and in context. • Acquire notions of dental prevention for adults and the elderly. • Knowing various dental diagnostic methods: clinical methods, visual methods (caries indices), paraclinical methods (diagnodent) and imagistic methods (radiography). • Obtaining knowledge of dental plaque control using different methods. • Perfecting the capacity to assess the carious risk level. Modern carious detection and assessment methods (ICDAS II, Diagnodent). • Acquiring the practical experience necessary in order to be able to use correctly the appropriate instruments for performing the dental caries

	prophylaxis stages using different methods and materials. • Perfecting the capacity to render the theoretical knowledge of oral cancer prevention and the correct therapeutic conduct in respect to patients with general pathologies.
Transversal competences	• The capacity of employing the learned notions in a new context. • To apply the theoretical knowledge in the practical activity. • Establishing interdisciplinary correlations between the studied subjects.
General objectives	• Acquiring knowledge of dental pathology prophylaxis for adults and the elderly. Treating patients with general health concerns.
Specific objectives	• Acquiring knowledge of dental prevention for adults and the elderly. • The introduction of dental plaque control notions. • Acquiring knowledge of the auxiliary means of hygiene and personalizing their usage. • Determining the level of carious risk. Modern methods for the diagnosis of the incipient carious lesion (ICDAS II, Diagnodent). Salivary testing. • Aspects of minimally invasive dentistry. • Chronic periodontal disease prevention (primary, secondary, tertiary) • Particularities of the prevention of oral pathologies in the elderly. • The prevention of the root caries. • Prevention of oral cancer. • Prophylactic considerations for the therapeutic conduct in patients with general health concerns. • Cross-infection control in the dental office.

LECTURES	
Teaching methods	• **Lecture, interactive, systematic presentation. Oral presentations, Power-Point presentations.**
Content	1. Clinical considerations patients with general diseases. Dental prevention for adults and elderlies. General aspects.
	2.Prevention of the dental caries for adults. The concept of dispensarization for patients with carioreceptivity. Risk evaluation chart for dental caries ICDAS.
	3. Periodontal disease prevention and management in adults and elderly. The features of the mechanical control of the bacterial plaque for adults. The electrical and the sonic toothbrush. Individualizing the auxiliary means of oral hygiene. The chemical control of the bacterial plaque: toothpaste and other dentifrices.
	4. Supra and sub gingival scaling (manual and mechanical devices). Individualised ergonomie for periodontal scaling.
	5. Isolation and soft tissue management. Dental damm.
	6. Fissure caries prevention. Special prevention measures for the fissure caries of patients with high carioreceptivity. Invasive Sealing. Indications, technique, commercial products. Approximal caries

	prevention.
	7. Maintenance of oral hygiene in adults and elderly patients with prosthetic works: Bridges, Implants, total prothesis etc.
	8. The features of the orodental diseases prevention for elderlies. Root caries prevention and management: Definition, means of prevention. Xerostomia: definition, etiology, practical means of prevention.
	9. Oral cancer prevention and tracing pre-malignant lesions at the level of the oral mucosa.
	10. Halitosis. Etiology, means of prevention.
	11. Preventive attitude towards patients with general diseases. Cardiovascular diseases, blood disorders. Bacterial endocarditis prevention.
	12. Preventive aspects regarding the therapeutical behaviour towards patients with malignant diseases. The dental approach of the patients undergoing chemotherapy and radiotherapy. Aspects regarding oral hygiene for patients with malignant diseases.
	13. Aspects regarding dental prevention for patients with endocrine disorders.Preventive dentistry in patients with diabetes.
	14. The cross-infection control in the dental office.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions. Demonstrations on film. Presentations on the model. Demonstrations on the model. Demonstrations on a clinical case.
Practical activity carried out by students	• Performing the learned techniques on the model and clinically on a patient.
Content	1. Preventing nosocomial infections. Means of transmitting infectious-contagious diseases in the dental office. Bacteremia beginning in the oral cavity. Preventing disease transmission. Pathogenic transmitting agents from the oral cavity.
	2. The acknowledgement and demonstration - on the typodont and in the patient's oral cavity - of the main and auxiliary means of oral hygiene.
	3. Quantification methods for oral health condition. Determining oral hygiene indices (OHI-S), dental plaque indices (API, O' Leary), periodontal inflammation indices (BI, PBI, CPITN).
	4. Assessing dental mobility by means of the periotest.
	5. Local administrations of fluorides. Professional fluoridation (fluoride pharmaceutical appearance, application methods, commercial products). Assessment of the fluoride pharmaceuticals. Sanitary education individualized on age groups and closely related to the existing dental and periodontal features and restorations.
	6. Primary prevention of dental caries. Preventive sealing.
	7. Fissure caries prevention. Special prevention measures of fissure caries for patients with high carioreceptivity. Extensive sealing.

	Approximal caries prevention. Bitewing X-Rays for the assessment of the approximal caries in remineralization stage.
	8. Carioreceptivity evaluation chart. Minimum invasive therapy protocol for carious lesions in precavitary, reversible stage.
	9. Mechanical scaling, professional brushing.
	10. Mechanical scaling, professional brushing.
	11. Iatrogeny prevention. Using doges, interdental matrices and wedges in accomplishing IInd, IIIrd and IVth class fillings.Polishing and brushing the dental fillings.
	12. Oral cancer prevention and tracing precancerous lesions at the level of the oral mucosa. Oral hygiene for patients with general diseases.
	13. Sanitary education lessons in adult and elderly communities in Cluj.
	14. The presentation of the dental prophylaxis project + interview.
Bibliography	1. Koch G, Poulsen S, Espelid I, Haubek D. Paediatric Dentistry. A clinical approach. John Wiley & Sons, Ltd, Third Edition, 2017. 2. Sarakinakis M. Dental Assisting Notes.Dental assistants chairside pocket guide. F. A. Davis company, 2017. 3. Eden E. Evidence-based caries prevention.Springer International Publishing Switzerland, 2016. ISBN 978-3-319-40032-7. DOI 10.1007/978-3-319-40034-1. 4. Welbury R, Duggal MS, Hosey MT. Paediatric dentistry. Oxford University Press, Fifth edition 2017. 5. Gălușcan Atena, Junanca Daniela. Noțiuni de bază pentru asistenta de profilaxie stomatologică. Editura EUROBIT, Timișoara 2016. 6. Cuculescu Marian. Preventie primară în carie si parodontopatii. EDITURA DIDACTICĂ ȘI PEDAGOGICA, 2010. 7. Dumitrache A, Lăzărescu F, Sfeatcu R, Stanciu D, Temelcea A. Strategii preventiva adaptate grupelor de risc pentru afecțiunile orale. Ghid de profilaxie 2013. https://www.sser.ro. 8. **Ece Eden.** Evidence-Based Caries Prevention ISBN 978-3-319-40032-7 ISBN 978-3-319-40034-1 (eBook) DOI 10.1007/978-3-319-40034-1. 9. **Sarakinas M.** Dental Assisting Notes. F. A. Davis Company-Philadelphia, 2015. 10. Fischer, Dena Joi.-Pinto, Andrés.-Treister, Nathaniel S.,- Risk Assessment and Oral Diagnostics in Clinical Dentistry, John Wiley & Sons, Inc., 2013. 11. Lewis, Michael A. O.-Jordan, Richard C. K.,-Oral Medicine, Manson Publishing, Ltd., 2012. 12. Limeback, Hardy.-Comprehensive Preventive Dentistry-John Wiley & Sons, Inc., 2012. 13. Lockhart, Peter B. -Oral Medicine and Medically Complex Patients-. John Wiley & Sons, Inc., 2012. 14. Patton, Lauren L. The ADA Practical Guide to Patients with Medical Conditions, John Wiley & Sons, Inc., 2012. 15. Ritter VA, Boushell LW, Walter R, Sturdevant CM -Sturdevant's

	art and science of operative dentistry, St. Louis, Missouri : Elsevier, [2019].		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**40%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	5 Internal Medicine
Discipline	Medical clinic IV
Cours title	**INTERNAL MEDICINE**
Responsible for lecture	**Lecturer Teodora Gabriela Alexescu**
Responsible for practical activity	Lecturer Teodora Gabriela Alexescu Lecturer Calin Vasile Vlad Universitary Proffessor Vacancy 14 Assistant Vacancy 128 Assistant Vacancy 130 Assistant Vacancy 130
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of Medical Semiology, Anatomy, Physiology, Physiopathology.
Requisites for lectures and practical activities	• Amphitheatre with projection system. • Patient rooms with beds.

Professional competences	• Capacity of using the semiologic terminology in specific situations and choosing the correct diagnostic algorithm. • Capacity of communication with the medical community. • Critic evaluation, synthesis of disease manifestations. • Applying the already learned techniques of examining the patient. • Gathering experience in using the medical instruments (eg. Stethoscope).

	• Correct interpretation of paraclinic examinations. • The capacity to integrate the anamnestic findings, the objective data and the paraclinic data in the syndrome diagnosis. • Discussing the differential diagnosis. • Development of the medical rationale. • Learning notions needed to apply prevention in the stomatology field. • Making the correct diagnosis of an emergency in the stomatology cabinet.
Transversal competences	• Being able to apply the new findings into their future job routine. • Applying the new theoretical knowledge in practical activity. • Making new correlations in various fields.
General objectives	• Presenting the data regarding the symptoms, signs, explorations, in order to create the correct clinical picture. • To be able to conduct the further investigations in order to reach the final diagnosis. • Creation of a precise, consistent and useful medical language. • Learning the basic concept of internal medicine, in close relationship with the dental pathology.
Specific objectives	• Applying the right technique of anamnesis and clinical examination, conducting the future investigations and formulating the syndrome diagnosis, the differential diagnosis and the final diagnosis. • Development of the medical rationale for each case.

LECTURES	
Teaching methods	• **Lecture, Systematic and Interactive Presentation.**
Content	1. Acute Trachea-Bronchitis, Chronic Bronchitis, Pulmonary Emphysema, Chronic Obstructive Pulmonary Disease (COPD).
	2. Asthma, Pneumonia, Pleurisy, Lung Cancer.
	3. Valvular Diseases, Infectious Endocarditis.
	4. Ischemic Heart Disease, Cardiomyopathy, Angina Pectoris, Myocardial Infarction.
	5. Hypertension, Heart Failure.
	6. Atherosclerosis, Artery Disease, Venous Disease, Pulmonary Thrombo Embolism, Chronic Pulmonary Heart Disease.
	7. Kidney Disease: Acute And Chronic Glomerulonephritis, Pyelonephritis, Kidney Stones, Kidney Failure.
	8. Gastroesophageal Reflux Disease, Reflux Oesophagitis, Oesophageal Cancer, Gastritis, Gastric Ulcer, Duodenal Ulcer, Gastric Ulcer.
	9. Inflammatory Bowel Disease, Colorectal Cancer, Irritable Bowel Syndrome.
	10. Chronic Hepatitis, Liver Cirrhosis, Liver Cancer.
	11. Gallbladder Stones, Acute Cholecystitis, Angiocolitis, Acute And Chronic Pancreatitis, Pancreatic Cancer.
	12. Diabetes Mellitus.

	13. Obesity, Dyslipidemia.		
	14. Metabolic Syndrome, Anemia.		
PRACTICAL ACTIVITIES			
Teaching methods	• Practical teaching near the patient`s bed.		
Practical activity carried out by students	• Anamnesis, Clinical examination, Building a diagnosis.		
Content	1. Objectives and importance of internal medicine for dentistry practice. Clinical cases presentation with acute and chronic tracheobronchitis, pulmonary emphysema, chronic obstructive pulmonary disease (COPD).		
	2. History and physical examination in asthma, pneumonia, pleurisy.		
	3. Acute rheumatic fever, valvular diseases, infectious endocarditis – clinical presentation, preventive therapy of infectious endocarditis for patients with valvular diseases or bleeding in dental surgery.		
	4. Clinical discussions and presentations of ischemic heart diseases, cardiomyopathy.		
	5. Hypertensive emergencies – the attitude of the dentist.		
	6. Lung thromboembolism, chronic pulmonary heart diseases – emergency diagnosis and therapeutic conduct.		
	7. Kidney disease – clinical discussion.		
	8. Oeso-gastro-intestinal diseases, case presentations, emergencies, therapeutic attitude.		
	9. Upper digestive bleeding,lower digestive bleeding – clinical discussions, management of patient in emergency.		
	10. Chronic hepatitis, liver cirrhosis: aetiology, ways of transmission, complications – the dentist`s attitude in viral liver disease.		
	11. Biliary and pancreatic pathology – presentation of clinical cases, discussions.		
	12. Diabetes mellitus: overview, case presentations.		
	13. Diabetes mellitus: complications, importance in dentistry.		
	14. Anaemia, leukocytosis, disorders of haemostasis, importance in dental practice.		
Bibliography	1. Lectures. 2. Cecil – Textbook of Medicine – Lee Goldman, 23th edition, 2007. 3. Bates's Guide to Physical Examination and History Taking, 12th Edition, 2017. 4. Teodora Alexescu (coord)- Internal Medicine Pocket Book, 2018. 5. Harrison principle of Internal Medicine, 20th edition, 2021.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**30%**	**10%**

Institution for graduate and	University of Medicine and Pharmacy "Iuliu Haţieganu"

postgraduate studies	Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	Dental Radiology
Cours title	**RADIOLOGY – MEDICAL IMAGING**
Responsible for lecture	**Lecturer Dr. Raluca Roman**
Responsible for practical activity	Lecturer Dr**.** Raluca Roman Lecturer 16 Vacant Assist. 50 Vacant
The formative category of the discipline	DD
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic notions in the field of physics - elementary particles of the atom, the electric charge of atomic particles, atomic models, atomic number, mass number. • Notions of electricity and electromagnetism, forces and fields. • Notions of dento-alveolar anatomy and skull anatomy.
Requisites for lectures and practical activities	• Amphitheatre with projector. • Laboratories with radiological and specific equipment for practical activities in the field of radiology.

Professional competences	• The ability to use specialized terminology, properly and contextually. • Acquire the knowledge of the concepts of radiological dental-alveolar and maxillofacial anatomy. • Acquiring the concepts of radiation physics. • Acquiring the experience and practical skills necessary to use the radiological equipment for performing radiographies. • Experience gain in interpreting the quality of radiographs, detecting errors and their repair techniques. • Experience gain in recognizing radiological and imaging exams in the dental and maxillofacial regions.
Transversal competences	• Using assimilated notions in new contexts. • The application of theoretical notions in practical activity. • Personal professional development.

	• Establishing interdisciplinary correlations in the fields studied.
General objectives	• Theoretical and practical knowledge of the radiological equipment in dental radiology and its use, detecting and repairing the errors, notions of radioprotection in the dental radiology office. • Knowledge of the dental-periodontal and maxillofacial radiological anatomy.
Specific objectives	• Acquiring the concepts of radiation physics, understanding the mechanism of radiological image formation. • Knowledge of the general radioprotection and radiobiology notions, as well as of the concepts of radioprotection applied in the dental radiology office. • The ability to use the specialized terminology properly and contextually. • Acquire the knowledge of the concepts of radiological dento-alveolar and maxillofacial anatomy. • Acquiring the experience and practical skills necessary in the use the radiological equipment for performing the radiographs. • Gain experience in interpreting the quality of radiographs, detecting errors and their repairment. • Gain experience in recognizing the aspect of radiological and special imaging in dental and maxillofacial regions. • Understanding the principles of CBCT image acquisition, and knowledge of the examination technique. • Understanding the principles of the technique in computer tomography, magnetic resonance imaging and echography.

LECTURES	
Teaching methods	• **Lecture, systematic oral and visual Power-point, interactive presentation.**
Content	1. General radiology concepts. Radiation physics: how to produce X-radiation, the properties of X-radiation and their interaction with matter.
	2. Radiation physics: The radiological image, characteristics, quality criteria, the plan for examining a radiological image.
	3. Notions of radiobiology and radiation dosimetry.
	4. Notions of radioprotection general, and specific for the dental radiology office.
	5. Radiological equipment used in the diagnosis of dento-periodontal lesions: dental Roentgen equipment, orthopantomograph equipment.
	6. Radiological detectors: radiological film, types of films, digital intraoral sensors, image formation, radiological film processing, digital image formation.
	7. Quality Assurance in dental radiology, digital image quality parameters.
	8. Infection control in radiology offices: Risks of infections, measures for the infection control.

	9. Intra-oral radiography technique: periapical radiography - isometric and paralleling technique, bitewing radiography, occlusal radiography; technical errors.
	10. Extra-oral radiography technique: panoramic radiography, principles, quality criteria, technique errors, skull radiographs.
	11. Normal radiological anatomy in intra-oral and extra-oral radiographies.
	12. Dental volumetric tomography (CBCT) technical principles, practical guide of recommendations.
	13. CBCT- Sectional maxillofacial anatomy.
	14. The physical principles of ultrasound, MRI techniques. The physical principles of CT examination comparative with CBCT.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic real-time demonstrations, conversation, problem solving exercises, practical, active, independent implementation.
Practical activity carried out by students	• Performing radiographic examinations: dental intraoral radiographs, panoramic radiographs, CBCT examinations, use of the CBCT imaging viewer with the necessary reconstructive maneuvers, recognition of errors on intraoral and extra-oral images, artifacts in CBCT, identification of anatomical structures on radiological images.
Content	1. Structure of the radiological equipment (Rontgen tube, control table, examination parameters). How to organize a dental radiography laboratory Demonstration of radiation protection measures in the dental radiology office.
	2. Obtaining the radiographic image. Radiological film processing. The radiological film. Digital sensors and digital processing.
	3. Radiological equipment used in the dento-periodontal lesions diagnosis: dental Roentgen equipment, the orthopantomograph; demonstration of operating principles.
	4. Processing errors. Radiological film quality. Plan to examine a radiological image.
	5. Performing intra-oral radiographs using isometric bisecting angle technique-technique errors.
	6. Performing intra-oral radiographs using the paralleling technique - technique errors.
	7. Performing intra-oral radiographs – Bitewing and occlusal radiography - technique errors.
	8. Normal radiological anatomy of intra-oral radiographs.
	9. The technique of extra-oral radiography: panoramic radiography; principles of technical functioning.
	10. Recognition and correction of technical errors in orthopantomography Normal radiological anatomy on panoramic radiography.
	11. Dental volumetric tomography (CBCT) presentation of equipment, technical performance of various examinations, evaluation of image

	quality, artifacts, practical guide of recommendations.		
	12. Dental volumetric tomography (CBCT) - presentation of the visualization program, standard sections, obtaining individualized reconstructions, use of the program tools.		
	13. Radiological anatomy in CBCT - recognition of dental and maxillofacial anatomical structures in the different CBCT sequences of the program.		
	14. Presentation of other imaging systems: ultrasound, CT, MRI; basic notions .		
Bibliography	1. Hedeşiu M. Radiologie orală. Ghid practic de tehnică, anatomie şi semiologie radiologică. Editura medicală, Bucureşti 2021. 2. Whaites E. Essentials of Dental Radiography and Radiology. Churchill Livingstone, 5th ed., 2013. 3. White CS, Pharoah MJ. Oral radiology. Principles and interpretation. Elsevier 2019.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40 %**	**50 %**	**10 %**

Institution for graduate and postgraduate studies			University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca						
Faculty			Dental Medicine						
Domain of study			Health						
Academic degree			Dental Medicine in English						
Level of course			I and II- License and masters						
Qualification			Doctor of Dental Medicine						
Department			Conservative Odontology 2						
Discipline			Odontology						
Cours title			**MEDICAL PRACTICE**						
Responsible for lecture			**Lecturer Dr. Radu Chisnoiu**						
Responsible for practical activity									
The formative category of the discipline			DS						
Compulsory discipline			Compulsory						
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	0	40	0	160			2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Patient examination knowledge, simple and complicated dental caries notions, dental prevention knowledge, notions about various methods of anesthesia used in dentistry, dental materials knowledge.

Requisites for lectures and practical activities	• Dental offices with dental units needed for practical activities on patients. • Attendance is mandatory in a proportion of 100%. • Filling in the summer medical practice notebook, in accordance with the curriculum.

Professional competences	• Medical practice activities in dental offices.
Transversal competences	• Ability to work in a team during therapeutic procedures. • Applying theoretical notions in practical activities. • The use of assimilated notions in particular contexts, specific to each case.
General objectives	• Acquiring the knowledge of the working of dental medicine units.
Specific objectives	• Knowledge of the working of dental medicine offices, the patients' and dental instruments' circuits. • Learning and exercising the examination of patients. • Filling in the patient's record with data obtained during the dental examination in order to establish a positive diagnosis of simple dental caries and a suitable therapeutic plan. • Practical application of dental prevention procedures. • Reminding and practicing dental anesthesia. • Practicing dental material preparing. • Learning notions regarding preparation of the instruments for disinfection and sterilization and regarding instrument sterilization.

PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions, demonstrations, practice.
Practical activity carried out by students	• Exercises for instruments recognition and description. • Realizing the preparations procedures for instrument sterilization. • Patient examination and data record. • Basic patient care procedures.
Content	1. Knowledge of the structure and functioning of the dental office. Knowledge of the medical records and documents used in the medical unit.
	2. The preparation of medical instruments: washing, degreasing, syringe and needle control, sterilization, the maintenance and route of sterile materials.
	3. Elementary sterilization practices: chemical sterilization, steam sterilization, modern techniques of sterilization. The disinfection of the dental office.
	4. Knowledge of the protection methods against infectious diseases in the dental office.
	5. Development of communication skills with the patient: patient

	history, informing and educating the patient. Development of special communication skills according to: sex, age, childhood, incurable, terminally ill or non-cooperating patient. Communicating with the patient's family.
	6. Development of clinical examination skills: physical examination, palpation, auscultation, percussion and special examination techniques: (measuring blood pressure, temperature, pulse).
	7. Diagnosing the simple and complicated caries.
	8. Basic patient care procedures.
	9. The knowledge of prophylactic procedures.
	10. Identifying and highlighting bacterial plaque.
	11. Scaling and professional teeth brushing.
	12. The preparation of dental materials for impressions, fillings, luting etc.
	13. Practicing topic and local anesthesia (supraperiostal, inferior alveolar nerve anesthesia etc.).
	14. Completion of medical charts. Elaboration of treatment plans.
Bibliography	-

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:			**100%**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				12 Medical education					
Discipline				Modern languages					
Cours title				**ROMANIAN LANGUAGE – SPECIALITY NOTIONS**					
Responsible for lecture				**-**					
Responsible for practical activity				**Assist. Prof. Anca Hassoun**					
The formative category of the discipline				DC					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			

3	1, 2	0	4+4	0	56+56			2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisites for lectures and practical activities	• To respect the rules and regulations for practical activities.

Professional competences	• The ability to properly employ Romanian (listening, reading, speaking, writing) in order to communicate in general contexts, both academic and medical. • The ability to use medical terms specific to various fields.
Transversal competences	• The ability to employ prior knowledge of Romanian in medical and academic activities in order to communicate adequately in Romanian • The ability to make interdisciplinary connections in the fields of study.
General objectives	• Development of competences in general Romanian and in academic medical language.
Specific objectives	At the end of the seminar, the learner will be capable to: • speak about education for health. • communicate with a patient. • speak about dental prophylaxis. • give explanations on the primary and the secondary dentition. • make a presentation on some of the oral affections.

PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching and multimedia support.
Practical activity carried out by students	• Specific exercises and activities (individual, in pairs or in groups) aiming to develop the main competences in Romanian (speaking, listening, reading, and writing).
Content	1. The dental practise.
	2. Verbs in past tense continuous.
	3. Dental instruments.
	4. Verbs in imperative.
	5. The oral hygiene.
	Reflexive verbs. 6. Numeral adverbs.
	7. Making an appointment.
	8. Degrees of comparison in adjectives.
	9. Dental pain.
	10. Nouns in the genitive case.
	11. Gingivitis.
	12. Verbs with pronouns.
	13. Dental veneers.
	14. Verbs in the conditional mood.

	15. Dentures and implants.
	16. Verbs in the subjunctive mood.
	17. Deciduous teeth.
	18. Diminutives. Interrogative pronouns.
	19. Malpositions, malocclusions.
	20. Definite and undefinite article.
	21. Root canal treatment.
	22. Verbs in the future tense.
	23. Parodontitis.
	24. Verbs in the past tense.
	25. Dental emergencies.
	26. Demonstrative and possessive pronouns.
	27. Oral surgery.
	28. Oral examination.
Bibliography	1. Gogâță C. (coord.), Tomiagă A. (coord.), Coiug A., Andreica A., Băgiag A., Limba română pentru practica stomatologică. Nivel B1, Editura Universitară Medicală, Cluj-Napoca, 2019. 2. Gogâţă C., Tomoiagă A., Băgiag A., Coiug A., Andreica A., *Limba română medicală. Sinteze pentru studenţii Erasmus*, Editura Universitară Medicală, Cluj-Napoca, 2018. 3. Andreica A., Băgiag A., Coiug A., Gogâţă C., Tomoiagă A., *Limba română pentru ptactica stomatologică*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 4. Andreica A., Băgiag A., Coiug A., Gogâţă C., Tomoiagă A., *Româna medicală pentru nivel intermediar*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 5. Gogâţă C., Tomoiagă A., Coiug A., Andreica A., Băgiag A., Ursa A., *Limba română. Elemente de limbaj medical. Nivel A2*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2018. 6. Băgiag A., Andreica A., Tomoiagă A., Coiug A., Gogâţă A., *Limba română în context stomatologic*, Editura Medicală Universitară „Iuliu Haţieganu", Cluj-Napoca, 2017. 7. Bejan, D. Gramatica limbii române. Ediția III, Cluj, Ed. Echinox, 2001. 8. Brâncuş, G. Ionescu A., Saramandu M., Limba Română. Manual pentru studenţii străini. Ediția IV, Ed. Universității din București, 1996. 9. Dorobăţ, A., Fotea, M. Limba română de bază. Iași, Ed. Institutul European, 1999. 10. Kohn, D., Puls. Limba română pentru străini. Iaşi, Ed. Polirom, 2009. 11. Platon, E., Sonea, I., Vîlcu, D. Manual de limba română ca limbă străină (RLS). A1-A2. Cluj-Napoca, Casa Cărţii de Ştiinţă, 2012. 12. Pop, L. Româna cu sau fără profesor. Ediția V, Cluj-Napoca, Ed. Echinox, 2003.

Evaluation:	Written exam	Practical exam	Activity during the semester:
Percent of the final grade:	33%	33%	34%

4TH YEAR

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Odontology, Endodontics and Oral Pathology
Cours title	**RESTORATIVE ODONTOTHERAPY**
Responsible for lecture	**Assoc. Prof Dr. Radu Chisnoiu**
Responsible for practical activity	Asist. Dr. Marius Bud Asist. Dr. Carina Culic Asist. Dr. Merfea Mihai Asist. Dr. Mara Rusnac Vacant sef lucrari18
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	2	3	28	42	80	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Simple dental caries diagnosis notions, dental treatment methods and endodontic treatment steps knowledge.
Requisities for lectures and practical activities	• Lecture hall with projection system. Dental offices with dental units needed for practical activities on patients.

Professional competences	• The capacity to use correctly the theoretical and practical cariology notions on models and phantoms. • Knowing the examination instruments and the instruments used for different cavities preparation. • Knowing and choosing the dental treatment options for direct restoration methods, depending on clinical situation. • Learning the dental restoration notions by different methods, depending on the used materials and their practical appliance on patients. • Developing synthesis capacity of aesthetic and functional dental

	restoration notions in order to understand and restore the principal functions of the dento-maxillary apparatus: mastication, deglutition, phonation, physiognomic function. • Improving the theoretical knowledge of cavity preparation and obturation skills. • Acquiring the practical experience needed to use the specialized instruments to achieve the coronary restoration stages using different materials.
Transversal competences	• The use of assimilated notions in particular contexts, specific to each case. • Applying theoretical notions in practical activities. • Establishing interdisciplinary correlations regarding the complex patient treatment.
General objectives	• Improvement of knowledge about etiology, clinical forms of dental caries, positive and differential diagnosis, the treatment of simple dental caries and their application to patient practice.
Specific objectives	• Patient examination, diagnosis decision and treatment plan. • Filling in the patient's record with data obtained during the dental examination in order to establish a positive diagnosis and a suitable therapeutic plan. • Assimilation of differential diagnosis notions and the conditions in which it is achieved. • Applying the theoretical notions of dentinal wound treatment and methods of restoration for restoring damaged dental tissues and ADM functions. • Practical application of the preparation steps for cavities in order to be restored with non-aesthetic materials. • Practical application of the preparation steps for cavities in order to be restored with aesthetic materials. • Developing the ability to replicate the theoretical knowledge by preparing the cavities and filling them depending on each clinical situation. • Exercise of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive exposure.**
Content	1. Infection control in the dental office.
	2. Complete patient examination. Anamnesis, Objective extra-oral clinical examination.
	3. Complete patient examination. Complex intra-oral examination: oral mucosa, dental arches, periodontal, complementary examinations in order to establish a complete and correct diagnosis.
	4. Dental caries etiopathogenesis. Favorable conditions (enamel quality and buccal fluid) and diet.

	5. The importance of biofilm presence and bacterial flora in the etiopathogenesis of dental caries. Time factor.
	6. Anatomo-clinical forms of dental caries; enamel, dentinal and cementum caries.
	7. Dental hyperesthesia and hypersensitivity: definition, etiology, positive and differential diagnosis, treatment.
	8. Cervical lesions of non-carious etiology: positive and differential diagnosis.
	9. Restoring cervical lesions by direct methods, using modern filling materials, their properties and indications.
	10. Actual and modern methods for composite obturations. Anterior restorations.
	11. Aesthetic posterior restorations using direct and indirect techniques.
	12. Coronal restorations in case of extensive carious lesions.
	13. Modern tendencies in direct pulp capping- calcium hydroxide or dentinal adhesives?
	14. Case presentation.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions and demonstrations.
Practical activity carried out by students	• Exercises for instruments recognition and description. • Realizing the preparations procedures for instrument sterilization. • Patient examination and data record. • Treatments on patients.
Content	1. Dental office presentation, dental unit functions.
	2. Dental office circuit for instruments; cleaning and sterilization methods for dental instruments. Working surfaces disinfection.
	3. Patient examination in the dental office, filling the patients record.
	4. Proper isolation achievement – rubber dam application.
	5. Dentinal wound treatment and application of filling materials in cavities: varnishes, bases, liners.
	6. Preparation and application of filling materials in cavities. Pulp capping.
	7. Complex restorations - silver amalgam.
	8. Cervical lesions restorations using modern materials.
	9. Conservative preparation of cavities and application of light curing composite materials.
	10. Anterior teeth restauration using light curing composite materials.
	11. Posterior teeth restauration using light curing composite materials.
	12. Procedures on patients.
	13. Procedures on patients.
	14. Practical exam- examination+ interview.
Bibliography	1. Summitt J.; Robbins W.; Schwartz R.: Fundamentals of operative Dentistry; Ed. Quintessence, 2013. 2. Sanda Cimpean: Ghid practic de odontologie și endodonție;

	Ed.UMF Cluj-Napoca, 2012. 3. Ecaterina Ionescu (coordinator): Manual pentru rezidențiat – stomatologie, Volumul I, Ed.Universitară "Carol Davila", 2021 4. Andre Ritter: Sturdevant's Art and Science of Operative Dentistry, Ed. Mosby, 2016.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental Materials
Discipline	Prosthetic Dentistry
Cours title	**OCCLUSION**
Responsible for lecture	**Professor Dr. Smaranda Buduru**
Responsible for practical activity	Assist. Dr. Silvia Balhuc Lecturer Dr. Simona Iacob Lecturer Dr. Mirela Fluerasu
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	2	3	28	42	55	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Morphology and function of the dento-maxillary apparatus (DMA).
Requisities for lectures and practical activities	• Amphitheatre/Lecture room with projection system. • Dental offices with dental chairs and semi-adjustable articulators.

Professional competences	• Capacity to adequately and contextually use the speciality terminology. • Knowledge of anatomy and function of the DMA. • Capacity to synthetize the interdisciplinary knowledge of anatomy, physiology, histology, in order to know and understand the main functions of the DMA: mastication, deglutition, phonation, physiognomy. • Knowledge of mandibular cinematics and its application in practical

	dentistry. • Acquiring concepts of functional dental occlusion. • Acquiring detailed information regarding the mandibulo-maxillary reference positions (centric relation - CR, mandibular rest position - MRP, maximum intercuspation - MI) and of mandibular eccentric positions, lateral and anterior guidance. • Gaining clinical experience to perform a proper examination of the patients' dental occlusion. • Gaining practical experience necessary to use properly the specific instruments for occlusal analysis (using the face bow and the semi-adjustable articulators with all corresponding accessories).
Transversal competences	• Using acquired knowledge in new contexts. • Applying theoretical knowledge in the multidisciplinary practical activity. • Establishing interdisciplinary correlations in the studied domains.
General objectives	• Knowledge of dental occlusion concepts and capacity to correlate the occlusion particularities with the function of the DMA. Capacity to integrate the occlusion principles into all dentistry domains.
Specific objectives	• Acquiring knowledge regarding the morphology of the masticatory muscles, the TMJ, the dental arches. • Knowledge of functional dental occlusion concepts. • Study the fundamental mandibular positions: MI, CR, propulsion, laterotrusion, MRP. • Knowledge of occlusal characteristics, both physiological and pathological. • Methods of recording and transferring the occlusal relationships. • Instrumental and occlusal analysis; conceiving the occlusal treatment plan. • Exercising capacities of synthesis and bibliographical research/documentation.

LECTURES	
Teaching methods	• **Lecture, systematic and interactive display of information, conversation.**
Content	1. Recapitulative notions of anatomy of the DMA. Jaw bones – the maxilla and the mandible. Masticatory muscles (elevator and depressor muscles), cervical muscles, muscles of the neck, muscles of the mimic and of the tongue. Occlusal implications.
	2. The temporo-mandibular joint (TMJ) – components (temporal bony surface, mandibular condyles, articular disk, the capsule, the ligaments), vascularisation, innervation, function.
	3. Notions of dental morphology. Lateral teeth – cusps (supporting and guiding), fossae, marginal ridges (embrasures); frontal teeth – incisal edges, palatal surfaces. Planes and curves of occlusion: role, normal and pathological situations. Occlusal stops. Functional and non-functional

	dental contacts in the frontal and lateral area.
	4. Mandibular cinematics. Posselt diagram. Analysis of mandibular movements in transversal, frontal and sagittal plane.
	5. Occlusal theories. Theories of functional occlusion: the theory of the bilateral balanced occlusion, the gnathological theory, the functionalistic theory, the myo-centric theory, the Romanian School theory.
	6. The closing and opening movement of the oral cavity. Maximum Intercuspation position: characteristics, the distribution of the maxillary and mandibular contact points. Three-dimensional analysis.
	7. The retropulsion movement. Centric Relation. Definition. Relation between CR and MI. Manipulations techniques of the mandible in CR. Recording the CR position.
	8. Mandibular Rest Position. Vertical dimension of rest and of occlusion (VDO and VDR). Factors that influence the VD. Examining the VDO. Consequences of modifying the VDO. Therapeutic modifications of the VDO.
	9. Functional occlusion criteria. Occlusal stops in MI, CR. Primary and secondary occlusal trauma. Anterior guidance. Active and passive interferences and premature contacts during propulsion. The Thielemann phenomenon. The 6-year molar syndrome.
	10. Functional occlusion criteria. Functional lateral guidance. Active and passive interferences and premature contacts during lateral guidance.
	11. Articulators. Classification (non-adjustable, semi-adjustable, non-adjustable), description, associated necessary procedures, advantages and disadvantages, selecting an articulator. Describing components and accessories. Describing the face bow and how to manipulate it.
	12. Mounting casts in the semi-adjustable articulator and its programming. Usage protocol of a semi-adjustable articulator. Programming the condylar slope and the Bennett angles. Programming the incisal guide table.
	13. Functional occlusion in different clinical situations. Functional occlusion applied in teeth- and implant-supported removable and fixed dentures.
	14. Occlusion in the digital era. Intraoral and cast scanning. CAD/CAM systems and virtual articulators. Facial scanners. Computerised axiography. The T-Scan computerised occlusal analysis system. 4D Digital Analysis –Modjaw.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions regarding the practical subject. Practical demonstration on a live patient. Verifying patient examinations.
Practical activity carried out by students	• Clinical patient examination. Data entry in the practical notebook. Impressions of both arches. Manipulate the articulator and learn the accessories and the facial bow. Make the IM, RC occlusal keys and mounting the models in the articulator. Make eccentric occlusal keys and program the articulator. Global occlusal analysis of a clinical case.

Content	1. Clinical patient examination with occlusal symptoms and temporo-mandibular dysfunction.		
	2. Oro-facial muscle examinations (masticatory and cervical muscles).		
	3. TMJ examination.		
	4. The semi-adjustable articulator (SAA). Components and accessories.		
	5. Static occlusion analysis. The curves of occlusion.		
	6. MI position examination.		
	7. Cast mounting in the SAA (MI position).		
	8. Clinical analysis of anterior guidance (the propulsion movement).		
	9. Programming the condylar slope and performing the comparative analysis using SAA.		
	10. Clinical analysis of laterotrusion guidances (diduction).		
	11. Programming the Bennett angle and performing the comparative analysis using SAA.		
	12. Analysis the VDO. Change of VDO in SAA.		
	13. Examining the CR.		
	14. Mounting casts in the SAA (CR position). Occlusal analysis in MI and CR.		
Bibliography	1.Klineberg I, Eckert S. Functional Occlusion in Restorative Dentistry and Prosthodontics. 1th Edition. Elsevier Mosby, 2015. 2. Wiens J. Fundamentals of occlusion. The american college of prosthodontists. 1st Edition 2015. 3.Gross M. The science and art of occlusion and oral rehabilitation. 1th Edition. Quintessence Publishing, 2015. 4. Duminil G, Laplanche O. L'occlusion tout simplement. Espace Id, 2015. 5. Duminil G, Orthlieb J.D. Le Bruxisme. Espace Id, 2015. 6. Orthlieb J.D. Dysfonctionnements temporomandibulaires. Compredre-Identifier- Traiter. Espace Id, 2017. 7. Buduru S. Analiza ocluzală. Clinic versus articulator. Ed. NapocaStar, Cluj-Napoca, 2018. 8. Okeson J.P. Management of Temporomandibular Disorders and Occlusion. 8th Edition. Elsevier Mosby, 2019. 9.Wright E. Manual of Temporo-Mandibular Disorders. 4th Edition. Blackwell Publishing, 2019. 10.Robert B. Kernstein. Handbook of Research on Clinical Applications of Computerized Occlusal Analysis in Dental Medicine. IGI Global, 2019. 11. Khanna N. Functional Aesthetic Dentistry. How to achieve predictable aethetic results using principles of a stable occlusion. 1th Edition. Springer, 2020. 12. Ziad Al-Ani, Riaz Yar. Practical Procedures in Dental Occlusion. John Wiley & Sons, 2021.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**

Percent of the final grade:	**45%**	**45%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Pedodontics
Cours title	**PEDODONTICS**
Responsible for lecture	**Lecturer Dr. Meda-Romana Simu**
Responsible for practical activity	Lecturer Dr. Meda-Romana Simu Assist. Drd. Irina Lupse Assist. Dr. Raluca Ghiran
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	2	3	28	42	55	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy and physiology of dento-maxillary system.
Requisities for lectures and practical activities	• Amphitheater with projection system.Offices with dental units.

Professional competences	• Knowledge of the development of the dento-maxillary system during childhood. • Particularities of clinical and complementary examination in pediatric dental medicine. • Behavioral particularities of the child and adolescent patient. • Normal and pathological development of the dento-maxillary apparatus. • Dynamics of dental eruption. • Specific dental pathology, with emphasis on the particularities of carious lesions of temporary and young permanent teeth. • Complications of carious lesions. • Etiopathogenesis and prophylaxis of dental caries in children and young people.
Transversal competences	• Using similar concepts in new contexts. • Application of theoretical concepts in practical activity.

	• Establish interdisciplinary correlations in the studied areas.
General objectives	• Acquiring notions of normal and pathological development of the dento-maxillary system. • Psychology and approach to the child in the dental office. • Particularities of diagnosis and treatment of dental lesions in children and young people.
Specific objectives	• Acquiring knowledge about the development of the dento-maxillary system during childhood. • Particularities of clinical and complementary examination in children and adolescent. • Techniques of communication and approach of the child and adolescent patient. • Normal and pathological development of the dento-maxillary apparatus • Dynamics of dental eruption. • Diagnosis and treatment of simple and complicated odor lesions of temporary and permanent immature teeth. • Etiopathogenesis and prophylaxis of dental caries in children and adolescent. • Exercise of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive exposition, Oral exposure, Power Point presentations.**
Content	1.Introduction, notions of psychology necessary for collaboration with the child patient.
	2.Clinical examination of the patient in the pediatric dental office.
	3.Complementary examinations, factors that may influence the development of the dento-maxillary system.
	4.Functional examination, functions of the dento-maxillary system, factors that can influence the development of dento-maxillary system.
	5. The dental anomalies, dystrophies.
	6. Dental eruption. Accidents and eruption disorders.
	7. Evolution of normal occlusion relationships.
	8. Morphological and structural particularities of temporary and permanent teeth during growth period.
	9. Etiopathogenesis of dental caries in children; epidemiological data, intensity index, frequency, caries rate.
	10. Prophylaxis of dental caries during childhood and adolescence.
	11. Simple decay of temporary teeth.
	12.Complicated decay of temporary teeth.
	13. Simple decay of young permanent teeth.
	14. Complicated decay of young permanent teeth.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical demonstration, interactive dialogue.

Practical activity carried out by students	• Performing complex clinical examinations; Radiographies study models, Follow the dental eruption process; Diagnosis of dental anomalies; Development of positive / differential diagnosis; Perform loco regional anesthesia for children; Applying methods of dental caries prophylaxis according to dentition and dentition; Staging treatment according to dentition.		
Content	1. Complex clinical examination.		
	2. Complex clinical examination.		
	3. Complex clinical examination.		
	4. Complex clinical examination.		
	5. Complex clinical examination.		
	6. Dental lesions of temporary teeth.		
	7. Dental lesions of temporary teeth.		
	8. Dental lesions of young permanent teeth.		
	9. Dental lesions of young permanent teeth.		
	10. Complementary examinations.		
	11. Complementary examinations.		
	12. Anesthesia in children and young people.		
	13. Prophylaxis of tooth decay.		
	14. Develop a treatment plan.		
Bibliography	1. KOCH, G., POULSEN, S., ESPELID, I., HAUBEK, D. (Eds.). (2017). Pediatric dentistry: a clinical approach. John Wiley & Sons. 2. MICHAELA MESAROS, ALEXANDRINA MUNTEAN, Medicina Dentara Pediatrica, Ed. Medicala Universitara" Iuliu Hatieganu", 2016, ISBN 978-973-693-724-8. 3. ARTHUR NOWAK, JOHN R. CHRISTENSEN. Pediatric Dentistry. 4. Infancy through Adolescence, 6e Hardcover 2018. 5. MCDONALD, AVERY'S. Dentistry for the Child and Adolescent, 10e Hardcover. 2015. 6. AMR M. MOURSI Clinical Cases in Pediatric Dentistry. 2nd Edition, 2020. 7. DECLAN T. MILLETT, PETER DAY. Clinical Problem Solving in Dentistry: Orthodontics and Paediatric Dentistry, 2016. 8. M. MULLER-BOLLA. Guide d'odontologie pediatrique, 2018.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50 %**	**30%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English

Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Prosthetic Dentistry
Cours title	**PROSTHETIC DENTISTRY**
Responsible for lecture	**Lect. Dr. Andreea Kui**
Responsible for practical activity	Lect. Dr. Andreea Kui Assist. Dr. Manuela Manziuc
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	1	3	14	42	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Elementary knowledge of teeth morphology, dental materials, occlusion and single-tooth fixed prosthesis.
Requisities for lectures and practical activities	• Amphitheater with video projector. Dental offices with dental units and all the specific equipment and materials for prosthodontic activity.

Professional competences	• Ability to adequately use the specialty terminology. • Knowledge regarding the etiology, complications and evolvement of partial edentulism. • Appling previous theoretical knowledge in order to correctly establish a complete diagnostic and a treatment plan for a particular case. • Knowledge regarding the indications and contra-indications of fixed partial dentures for partial edentulism. • Understanding the principles of treatment when manufacturing a fixed partial denture. • Developing the practical abilities when preparing one or several abutments for a fixed partial denture. • Understanding the technical processes for manufacturing a fixed partial denture. • Knowing and understanding the clinical steps in performing a fixed partial denture. • Knowing and understanding the impression methods used in fixed prosthodontics as well as the bite registration techniques. • Knowledge of the theoretical aspects on esthetic analysis of a case and of the methods used in prosthodontics for a complete esthetic rehabilitation.
Transversal competences	• The use of assimilated information in new contexts. • Application of theoretical concepts in the practical activity.

	• Interdisciplinary correlations within the study domains.
General objectives	• Acquiring theoretical and practical notions in order to perform fixed partial dentures to patients with partial edentulism.
Specific objectives	• Practicing the synthesis capacity that a future dentist should have by using also the references in this domain. • Acquiring the notions needed to establish a complete diagnosis and a complete treatment plan for a patient with partial edentulism, using a fixed partial denture. • Practical application of the principles used in establishing a treatment plan with a fixed partial denture. • Understanding the interdisciplinary nature of a prosthetic treatment plan • Establishing a complete treatment plan, depending on the type of edentulism. • Clinical study of different types of prosthetic restorations. • Attending during the practical activity to all the clinical steps required to perform a fixed partial denture, in correlation with acquiring practical skills needed to execute all the clinical stages needed for a particular case.

LECTURES	
Teaching methods	• **Interactive systematic lectures.**
Content	1. Partial edentulism – definition, clinical aspects, etiology, symptoms.
	2. Complications of partial edentulism – local complications, regional complications, systemic complications.
	3. Classification of partial edentulism.
	4. Examination of a patient with partial edentulism. Complete diagnosis.
	5. Clinical aspects regarding abutments' preparation in case of a fixed partial denture. Atypical preparations of the abutments. Establishing the axis of insertion.
	6. Provisional prosthetic restorations: functions, classification of the provisional restorations, procedures in manufacturing a provisional prosthetic restoration.
	7. Functional and biological consideration in designing a fixed partial denture.
	8. Biological and prophylactic principles in designing a fixed partial denture.
	9. Theoretical aspects regarding fixed partial dentures: indications and contra-indications of FPDP; FPDP's objectives; classification of fixed partial dentures. Selection of the retainers for a fixed partial denture.
	10. Selection of the pontic for a fixed partial denture. Selection of the connectors for a fixed partial denture.
	11. Selection of the abutments for a fixed partial dentures.
	12. Treatment planning in case of partial edentulism: objectives, sequences of a treatment plan by either tooth supported or implant

	supported prosthetic restorations.
	13. Treatment configuration in partial edentulism – fixed partial denture configuration and implant configuration as treatment possibilities in different types of edentulous spaces – maxillary arch.
	14. Treatment configuration in partial edentulism – fixed partial denture configuration and implant configuration as treatment possibilities in different types of edentulous spaces – mandibular arch.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching activities.
Practical activity carried out by students	• Analysis of study models. • Performing clinical examinations / completing the examination form • Simulating dental grinding - fixed metal-ceramic partial denture intra-oral grinding and making temporary prostheses. • Establishing the complete diagnosis in different clinical situations • Establishing the treatment plan.
Content	1. The components and the use of a dental unit; the use of dental instruments; presentation of the instruments used for examination.
	2. Evaluation of the partial edentulism complications.
	3. Evaluation of the type of edentulism.
	4. Clinical examination of an edentulous patient.
	5. The use of a dental survey to analyze a model with partial edentulism: abutments' analysis, establishing the path of insertion of a fixed partial denture; preparation of teeth for a fixed partial denture on simulator.
	6. Performing a provisional prosthetic restoration using a direct method or an indirect-direct method.
	7. Analyzing the models of a patient with a partial edentulism mounted in an articulator – occlusal plan analysis, considerations regarding the mastication rehabilitation.
	8. Case presentations – evaluation of the functions affected by partial edentulism; evaluation of old prosthetic restorations.
	9. Model analysis - establishing a complete diagnosis based on the data obtained.
	10. Establishing the sequences of a complete treatment plan.
	11. Complete diagnosis and treatment plan. Establishing the prosthetic treatment plan – abutments, retainers, pontic and connectors.
	12. Establishing the steps in performing the prosthetic treatment plan
	13. Model analysis – diagnosis and different prosthetic therapies in partial edentulism - maxillary arches.
	14. Model analysis – diagnosis and different prosthetic therapies in partial edentulism - mandibular arches.
Bibliography	1. Wassell, R; Nohl, F; Steele, J; Walls A (Eds). Extra-Coronal Restorations - Concepts and Clinical Application, 2nd Edition (BDJ Clinician's Guide). 2018. 463 p. 2. Shilligburg T.H., Hobo S., Whitsett L.D ,,Fundamentals of fixed

	prosthodontics" Fourth edition. Quint. Publ. Co. Chicago-Tokyo, 2012. 3. Rosenstiel S.F., Land M.F., Fujimoto J. ,,Contemporary fixed prosthodontics", Fifth edition.Mosby Co: St.Louis, 2016. 4. Heasman P. Master dentistry - Restorative Dentistry, Paediatric Dentistry and Othodontics. Third Edit. Churchill Livingstone Elsevier; 2012. 5. Powers J, Wataha J. Dental materials : foundations and applications. Elsevier; 2017. 6. Manfredini D, Poggio CE. Prosthodontic planning in patients with temporomandibular disorders and/or bruxism: A systematic review. J Prosthet Dent 2017;117(5):606–13.http://dx.doi.org/10.1016/j.prosdent.2016.09.012. 7. Sakaguchi RL, Ferracane JL, Powers JM. Craig's restorative dental materials. Fourteenth. Craig's Restorative Dental Materials. Elsevier Inc.; 2018. 1–340 p. 8. Warreth A, Ramadan M, Bajilan MR aa., Ibieyou N, El-Swiah J, Elemam RF ara. Fundamentals of occlusion and restorative dentistry. Part I: basic principles. J Ir Dent Assoc. 2015, 61. 9. Kui A, Picos A, Picos A, Ispas A. Fixed Partial Dental Prosthesis - Lecture notes. University of Medicine and Pharmacy "Iuliu Haţieganu"; 2018. 2018 p.):201–8. 10. Strassler HE. Fixed prosthodontics provisional materials: making the right selection.Compend Contin Educ Dent. 2013 Jan;34(1):22-26.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**40%**	**50% out of practical exam grade**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	6 Medical specialties. 4 Community Medicine
Discipline	Infectious diseases. Epidemiology
Cours title	**INFECTIOUS DISEASE. EPIDEMIOLOGY**
Responsible for lecture	Lecturer - vacant 3
Responsible for practical activity	Teaching assistant Dr. Badea Mihai Teaching assistant vacant 5 and 7.
The formative category of the discipline	DD

Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Microbiology, Internal Medicine, Medical Semiology, Pediatrics.
Requisities for lectures and practical activities	• Students will not be allowed at the practical works with open phones and phone calls will not be acceptable during the courses or students leaving the classroom to retrieve personal telephone calls. • In delay presentation for the courses and practical works is not acceptable as it proves disruptive to the educational process.

Professional competences	• The ability to adequately use the epidemiological entities to understand the causes and the impact of diseases. • Integration of clinical epidemiology in primary, secondary and tertiary prevention. • Continuous improvement of the duration and quality of life correlated with active immunization programs. • The ability to apply measures to prevent and control the healthcare associated infections with the particularities in dental practice. • Improving the ability to reproduce the theoretical knowledge in preventive medicine.
Transversal competences	• Built up the professional development by engaging critical thinking skills and understanding through the use of the epidemiological method. • Integration of the epidemiological approach into the concept of preventive medicine.
General objectives	• At the end of the course the students will have the basic knowledge and skills to apply the concepts of epidemiology in promoting health and disease prevention within communities and in health care services.
Specific objectives	At the end of the course the students will be able: • To understand the interrelation between risk factors, environmental and host factors involved in infectious and chronic diseases occurrence. • To identify the infectious risk, the basic knowledge applicable in the epidemiology of infectious diseases and to integrate their particularities in dentistry. • To apply the principles of immunoprophylaxis in the healthcare of healthy people and in groups at risk. • To consider the judicious use of chemoprophylaxis in exogenous and endogenous infections.

	• To integrate the post exposure prophylaxis in occupational exposure to infectious agents transmissible through blood and other biological fluids.

LECTURES	
Teaching methods	• **Lecture, interactive presentations - On site and online exposures based on PPT presentations and clinical cases.**
Content	1. Definition of health, health determinants, the professional basis and methods of public health in primordial, primary and tertiary prevention.
	2. Epidemiology objectives and the domains of application: epidemiological surveillance, investigation, analysis and evaluation.
	3. Definition of commensal, pathogenic and opportunistic microorganisms with different approaches in the preventive and therapeutic interventions.
	4. Infectious disease classification according to the type of transmission and in relation with the preventive and control approach. COVID-19 pandemic and influenza – epidemiology, prevention and control in the communities and health services.
	5. Clinical epidemiology - the normal / abnormal approach, diagnosis, prognosis, natural history and treatment.
	6. Optimal primary prevention by combining the population strategy with the high individual risk strategy. Secondary prevention and the justification of screening programs.
	7. Surveillance of healthcare-associated infections, the individual, population and economic significance. Types of healthcare associated infections, the risks and specific components in dentistry.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive presentations - On site and online exposures based on PPT presentations and clinical cases.
Practical activity carried out by students	• Interactive presentations - On site and online exposures based on PPT presentations and clinical cases. • On each disease it will be presented aspects related to: etiology, pathogenesis, clinical picture, clinical forms of disease, complications, prognosis, treatment, and prophylaxis. • Identifying the standard and transmission based precautions in different scenarios. • Identifying the specific risks and preventive measures to be applied in dental settings. • Exercise the basic statistics and specific indicators in dentistry.
Content	1. Defining the preventive and combative antiepidemic activities. Case studies.
	2. Active and passive immunization. Principles, objectives and recommendations.
	3. The recommended vaccines in the National Immunization Schedules. COVID-19 vaccination - types of vaccines, efficacy and safety, vaccination strategy, adherence to vaccination.

	4. Vaccine contraindications and adverse events following immunizations.
	5. Chemoprophylaxis - recommendations in exogenous infections and prevention of infective endocarditis in the dental office.
	6. Standard precautions – components, hand hygiene, the personal protective equipment (PPE).
	7. Transmission based precautions (additional) – airborne, droplets and contact precautions and protective environment isolation. Personal protective equipment in dentistry during SARS-CoV-2 pandemic.
	8. The attitude in case of occupational exposure to blood and other potentially infectious body fluids - hepatitis B, C viruses and HIV.
	9. Definition and calculation of the most important epidemiological indicators - incidence, prevalence and relative risk. Specific indicators in dentistry - DMFT.
	10. The epidemiology of viral hepatitis – prevention and control.
	11. The epidemiology of HIV infection – the trends, prevention and control. Ending AIDS by 2030.
	12. The dental setting, biological risks and dental instrument classification. Disinfection, sterilization and cleaning in the dental setting.
	13. Basic knowledge upon hazardous waste management.
	14. Case studies - healthcare associated infections in dentistry.
Bibliography	1. R. Bonita, R. Beaglehole, T. Kjellström Basic epidemiology. 2nd edition. World Health Organization, 2012. ISBN 92 4 154707 3. 2. Aschengrau A, Seage G. Essentials of Epidemiology in Public Health. 3rd Ed. Jones & Bartlett Learning. 2014. ISBN 9781284028911. 3. Merrill R. Introduction to Epidemiology 6th Ed. Ed. Jones & Bartlett Learning. 2013. ISBN 9781449665487. 4. Hebel JR, McCarter R. Study guide to Epidemiology and Biostatistics 7th Ed. Ed. Jones & Bartlett Learning. 2012. ISBN9781449604752. 5. Plotkin SA, Orenstein WA, Offit PA, Edwards KM. Plotkin's Vaccines. 7th ed., Elsevier 2018. ISBN: 978-0-323-35761-6. 6. Centers for Disease Control and Prevention. Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care. Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2016. https://www.cdc.gov/oralhealth/infectioncontrol/pdf/safe-care2.pdf. 7. European Centre for Disease Prevention and Control. ECDC Available at: https://www.ecdc.europa.eu/en/home. 8. ORDIN Nr. 1101/2016 privind aprobarea Normelor de supraveghere, prevenire şi limitare a infecţiilor asociate asistenţei medicale în unităţile sanitare. 9. ORDIN nr. 1761/2021 pentru aprobarea Normelor tehnice privind curățarea, dezinfecția și sterilizarea în unitățile sanitare publice și private, evaluarea eficacității procedurilor de curățenie și dezinfecție efectuate în cadrul acestora, procedurile recomandate pentru dezinfecția mâinilor în funcție de nivelul de risc, precum și metodele de evaluare a derulării procesului de sterilizare și controlul eficienței

	acestuia. 10. Ordinul nr. 828/2020 privind măsurile de organizare şi desfăşurare a activităţii la nivelul cabinetelor stomatologice, la nivelul unităţilor sanitare non-COVID şi al ambulatoriilor de specialitate pe perioada stării de alertă. 11. ECDC – COVID-19 pandemic. https://www.ecdc.europa.eu/en/covid-19-pandemic. 12. WHO - Coronavirus disease (COVID-19) pandemic. https://www.who.int/emergencies/diseases/novel-coronavirus-2019.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**34%**	**66%**	**%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 Maxillo-Facial Surgery and Radiology
Discipline	Dental Radiology
Cours title	**RADIOLOGY – DENTAL IMAGING**
Responsible for lecture	**Lecturer Dr. Raluca Roman**
Responsible for practical activity	Lecturer Dr Raluca Roman Assist. prof. 51 Vacant
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	2	2	28	28	19	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the radiological anatomy of dental- periodontal and maxillofacial structures. • Notions of radiological image and radiation physics, radioprotection, radiobiology; notions of radiation protection applied in the dental radiology office. • Knowledge of the principles and use of the radiological equipment in the diagnosis of dental-periodontal and maxillofacial lesions, of the use of the Roentgen intraoral equipments and of the orthopantomography equipment.

	• Knowledge of the principles and how to perform the periapical dental radiography, and also bitewing, occlusal, orthopantomography techniques. • Detection, knowledge and correction of the possible errors in dento-maxillofacial radiology. • Knowledge of the principles and the technique in CBCT. • Understanding the basic principles of image acquisition in computer tomography and magnetic resonance imaging • passing the Dental Radiology exam - general notions from III rd year. • Capacity to recognize the type of radiological examination and how to perform them. • Capacity to recognize dental and maxillofacial anatomical structures on radiological images.
Requisities for lectures and practical activities	• Amphitheatre with projector. • Laboratories with specific equipment for practical activities in the field of radiology interpretation.

Professional competences	• The ability to use specialized terminology, properly and contextually. • Gaining experience in algorithms for indicating and interpreting the dental and maxillofacial pathology imaging examination. • Gaining knowledge of radiological semiology in different dental and maxillofacial pathological entities. • Ability to use specific radiological semiological imaging criteria in the differential analysis and to formulate the radiological diagnosis.
Transversal competences	• Using assimilated notions in new contexts. • The application of theoretical notions in practical activity. • Personal professional development. • Establishing interdisciplinary correlations in the fields studied.
General objectives	• Recognition the dental-alveolar pathology on radiological examinations, learning the diagnostic algorithm using radiological and imaging examinations in dental and maxillofacial pathology, special imaging techniques in implantology and pathology of the maxillofacial area.
Specific objectives	• Refreshing and consolidating the knowledge regarding the dental-maxillofacial radiological anatomy. • Acquiring knowledge on special imaging techniques in dental-maxillofacial pathology (CBCT, CT, MRI, Ultrasound of the head and neck). • Recognizing the semiology in dental and maxillofacial pathology on radiological examinations. • Knowledge of the diagnostic algorithm using radiological and imaging methods in dental- maxillofacial pathology. • The use of theoretical and practical knowledge in formulating the radio-imaging diagnosis in dental and maxillofacial pathology.

	• Use of the imaging techniques in implantology. • Development of differential diagnoses based on the radiological aspects.

LECTURES	
Teaching methods	• **Lecture, systematic oral and visual Power-point, interactive presentation.**
Content	1. Radiological diagnosis of carious lesions.
	2. Radiological diagnosis pulp pathology. Radiologic examination in endodontics.
	3. Radiological diagnosis of apical periodontitis and chronic periodontal disease – pathology and examination protocols.
	4. Radiological diagnosis of dental anomalies.
	5. Radiological diagnosis in orthodontics – cephalometric radiography.
	6. Radiological diagnosis in oral implantology. Use of CBCT in implant planning.
	7. European guide of recommendations regarding radiological examination in oral and maxillofacial pathology.
	8. Special imaging techniques in dentomaxillofacial pathology: CT, MRI, Ultrasound of the head and neck, guide of indicating the methods, advantages and disadvantages.
	9. Radiological diagnosis in maxillofacial trauma.
	10. Plan of assessing maxillofacial bone lesions. Radiological diagnosis in maxillofacial cystic lesions.
	11. Radiological diagnosis in maxillofacial solid tumors.
	12. Radiological diagnosis in salivary gland pathology.
	13. Radiological diagnosis in paranasal sinuses pathology.
	14. Radiological diagnosis in temporo-mandibular joint pathology.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic real-time demonstrations, conversation, problem solving exercises and case studies, practical, active, independent implementation.
Practical activity carried out by students	• Performing radiographic images interpretation: dental radiographies, panoramic radiographies, skull radiographies. Use of CBCT imaging software with performing the necessary reconstructive maneuvers and interpretation of detected semiological changes, application of diagnostic algorithms, formulation of imaging diagnoses.
Content	1. Recognition of anatomy in conventional and special dento-maxillo-facial examination.
	2. Radiological diagnosis of carious lesions.
	3. Radiological diagnosis in pulp pathology and radiological e4xamination in endodontics.
	4. Radiological diagnosis of periapical periodontitis and chronic periodontal disease – pathology and examination protocols.

	5. Radiological diagnosis of dental anomalies.		
	6. Radiological diagnosis in orthodontics –cephalometric radiography.		
	7. Radiological diagnosis in oral implantology - CBCT viewer, implant planning .		
	8. Exemplification of special imaging techniques in dentomaxillofacial pathology: CT, MRI, Ultrasound of the head and neck, Guide of indicating these examination in maxillofacial pathology.		
	9. Radiological diagnosis in maxillofacial trauma.		
	10. Radiological diagnosis in maxillofacial cystic tumors – differential diagnosis algorithm.		
	11. Radiological diagnosis in maxillofacial solid tumors – differential diagnosis algorithm.		
	12. Radiological diagnosis in salivary gland pathology.		
	13. Radiological diagnosis in paranasal sinuses pathology.		
	14. Radiological diagnosis in temporo-mandibular joint pathology.		
Bibliography	1. Whaites E. Essentials of Dental Radiography and Radiology. Churchill Livingstone, 5th ed., 2013. 2. White CS, Pharoah MJ. Oral radiology. Principles and interpretation. Elsevier 2019. 3. Fildan F, Hedeşiu M., Patologie dento-maxilo-facială, Editura Medicală Universitară Iuliu Haţieganu Cluj-Napoca, 2003. 4. Hedeşiu M. Radiologie orală. Ghid practic de tehnică, anatomie şi semiologie radiologică. Editura medicală, București 2021.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**50%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Dental Propedeutics and Esthetics
Cours title	**CAD/CAM SYSTEMS**
Responsible for lecture	Lecturer Dr. Varvara Adrian Mihai
Responsible for practical activity	Conf. dr. Bogdan Culic Sef. Lucr. Dr. Varvara Adrian Mihai Asist. Univ. drd. Boitor Amelia Anita Asist. Univ. drd. Clichici Andra Octavia Georgiana
The formative category of	DS

the discipline									
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions on the clinical-technical stages of manufacturing dental prostheses. • Notions of Prosthodontics- indirect restorations manufactured by digital technology. • Notions of technology of dental prostheses, manufactured by conventional methods.
Requisities for lectures and practical activities	• Amphitheater with multi-media system for projection • Simulation offices and laboratories with specific equipment for practical activities. • Optical impression of the prosthetic field. • Design techniques - individual achievement. • Milling of restorations.

Professional competences	• The ability to use the specialized terminology properly and contextually • Knowledge of the particularities of CAD/CAM systems in dental medicine. • Knowledge of the technological possibilities of CAD/CAM systems indications, limits.
Transversal competences	• Using assimilated notions in new contexts. • Application of theoretical notions in practical activity. • Establishing interdisciplinary correlations within the studied fields.
General objectives	• Knowledge of CAD/CAM technology - office and laboratory.
Specific objectives	• Knowledge of general principles. • Know the limits of use. • Knowledge of types of prosthetic restorations, types of preparations. • Learning of optical impression methods. • Acquiring design methods for different types of prosthetic restorations.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive presentation.**
Content	1. CAD / CAM systems in Dental Medicine. Definition. Historic. Generalities. Types of CAD / CAM systems.
	2. In office systems. Presentation of the equipment, technological variants.
	3. Intraoral scanning. Types of CAD / CAM systems. Laboratory

	systems.
	4. Types of preparations for prosthetic restorations inlay, onlay, crown.
	5. Optical impression. Definition, Characteristics, Performance. Image capture. = part I (intraoral) Optical impression. Definition, Characteristics, Performance. Image capture. = part II (model).
	6. CAM / CAD Materials - Feldspar ceramic. Lithium Disilicate ceramic.
	7. CAM / CAD Materials - Hybrid Ceramics. Zirconium oxide.
	8. Software for design. Design of restorations for Inlay / Onlay / Crowns / Bridges.
	9. Indications, Choosing the type of restoration according to the clinical indication. Choosing ceramic materials for CAD / CAM technique. 10. The thickness of the ceramic. Milling work.
	11. Sintering / Crystallization. Types of ovens. Glazing.
	12. Lutting of all ceramic works Zr cementation, Feldspar ceramic cementation, Emax. Adhesion - tooth (types of adhesives) Preparation of ceramics - Types of cement.
	13. CAD_CAM systems for the laboratory. Applications of 3D printing in dental medicine.
	14. Milling systems - in the laboratory. Surgical guides using CAD / CAM technology. Intervention planning.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical demonstrations, interactive exercises.
Practical activity carried out by students	• Demonstrations regarding the use of instrumental systems for the analysis of dental color.
Content	1. General features of CAD-CAM systems - Presentation of systems at the discipline level.
	2. Exercises for using the systems.
	3. Optical impression - intraoral system of offices.
	4. Impression of maxillary prosthetic field + mandible + occlusion - mounting in the virtual articulator.
	5. Optical impression - laboratory scanner.
	6. Impression of maxillary prosthetic field + mandible + occlusion - mounting in the virtual articulator.
	7. Design generation - inlay/onlay _ CAD component.
	8. Use of the design software for inlay/onlay.
	9. Design generation - crown/ bridge _ CAD component.
	10. Use of the design software for crown/ bridge.
	11. Milling techniques for prosthetic restorations - CAM component.

	12. Milling of restorations from different CAD-CAM materials.
	13. Pigmentation and glazing of prosthetic restorations.
	14. Glazing the milled restorations.
Bibliography	1. Electronic course syllabus- Culic B, Gasparik C, Varvara M, Burde A-2022-2023. 2. Fradeani M. Esthetic Analysis. A systematic Approach to Prosthetic Treatment Quintessence, 2004. 3. Chu S, Paravina R, Devigus A, Mieleszko A. Fundamentals of Color, Shade matching and Communications in Esthetic Dentistry. 2nd ed Quintessence Publishing Co, Inc, 2010. 4. Shillingburg HTJr. Fundamentals of fixed prosthodontics, 4rd ed., Quintessence Publishing Co Inc., 2012.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**30%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Odontology, Endodontics and Oral Pathology
Cours title	**ENDODODNTICS**
Responsible for lecture	**Assoc Prof 7 vacancy**
Responsible for practical activity	Vacant sef lucrari 18 Vacant sef lucrari 19 Asist dr. Carina Culic Asist dr Merfea Mihai Asist dr. Antonia Boca
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	2	3	28	56	80	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of anatomy and histology of the teeth, dental pulp, alveolar bone and apical periodontium. Knowledge of Anatomical pathology. Knowledge of inflammatory disease of

	the dental pulp and its treatment.
Requisities for lectures and practical activities	• Lecture halls with projecture systems and access to Microsoft Teams platform. • Dental office with specific equipments.

Professional competences	• The ability to use the appropriate terminology. • Knowledge of morphology and physiology of the dental pulp and alveolar bone. • The ability to diagnose pulpal and periapical disease based on information gathered during subjective and objective examination. • Become trained in mechanised root canal instrumentation. • Gather information about root canal disinfection. • Understanding the concepts of root canal obturation techniques. • Gather information about root resorption and corono-radicular traumatic injuries. • Acquiring the necessary practical experience, in order to use the specialized tools in endodontic treatment.
Transversal competences	• To use gained knowledge in new context. • To applying the theoretical concepts in practical work. • To establishing interdisciplinary correlations within the studied domains.
General objectives	• To gain knowledge of morphology, physiology and pathology of the dental pulp and periradicular tissues . • To gain the ability to diagnose pulpal and periapical disease.
Specific objectives	• To acquire knowledge of morpho-physiology and inflammation of the apical periodontium, about root canal infections and root canal biofilm. • To have the ability to establish a correct diagnosis of periapical inflammatory diseases and pulp necrosis based on subjective and objective signs. • To learn and practice mechanized root canal endodontic treatment. • To learn thermocompaction technique, used in root canal obturation. • To gather information about dental trauma, root resorption, dental cracks.

LECTURES	
Teaching methods	• **Lecture, oral displays, Power-Point presentation.**
Content	1. Pulp necrosis and pulp gangrene. Endodontic biofilm. Subjective and objective symptomatology, diagnosis and treatment plan.
	2. Periapical disease: acute apical periodontitis. Subjective and objective information, diagnosis and treatment plan.
	3. Periapical disease: chronic apical periodontitis. Subjective and objective information, diagnosis and treatment plan.

	4. Diagnosis in Endodontic, treatment plan and prognosis.
	5. Root canal disinfection. Phisical and chemical means of disinfection.
	6. Mechanized instrumentation: principles, guidelines, classification of existing systems,. 2Shape system: description, guidelines.
	7. ProTaper, ProTaper Gold, ProTaper Next System: description, guidelines, clinical case presentation.
	8. Root canal obturation using McSpaden thermo-compaction technique, and Combined technique: description, guidelines.
	9. Endodontic retreatment: indications, contraindications, principles of treatment.
	10. Cracked tooth syndrome: subjective and objective information, diagnosis and treatment plan.
	11. Root resorbtion: etiopathogenesis, subjective and objective symptomatology, diagnosis and treatment plan.
	12. Dental trauma: etiopathogenesis, subjective and objective symptomatology, diagnosis and treatment plan.
	13. Endodontic surgery: indications, contraindications, instruments, techniques.
	14. Coronal restoration of endodontically treated teeth.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive discussions about endodontic topics. Diagnosis and treatment plan in pulpal and periapical disease. Discussions about root canal instrumentation and obturation techniques, accidents and complications that may occur.
Practical activity carried out by students	• Diagnose pulpal and periapical disease based on information gathered. • during subjective and objective examination. • Perform endodontic treatments on pacients.
Content	1. Consultation, X-ray examination, diagnosis and treatment plan.
	2. Anesthesia, access cavity, preendodontic restoration.
	3. Root canal preparation and irrigation. Intracanal medication
	4. Root canal obturation using cold lateral condensation technique.
	5. Coronadicular restoration of endodontically treated teeth.
	6. Consultation, X-ray examination, dignosis and treatment plan for acute apical periodontitis.
	7. Emergency treatment for acute apical periodontitis (endodontic drainage).
	8. Preendodontic restoration.
	9. Mechanized root canal instrumentation using 2 Shape system. Root canal irrigation. Intracanal medication with calcium hydroxide.
	10. Removal of root canal dressing. Root canal obturation using thermo-mechanical condensation technique.
	11. Coronadicular restoration of endodontically treated teeth using fiber posts.
	12. Treatment plan for internal and external resorptions.

	13. Treatment plan for traumatic injuries.		
	14. Assessment of endodontic treatment.		
Bibliography	1. Sanda Cimpean –Ghid practic de Odontologie si Endodontie, Editura Medicala Universitara "Iuliu Hatieganu" Cluj-Napoca, 2012. 2. Stephen Cohen, Kenneth M.Hargreaves – Pathways of the Pulp, editura Mosby Elsevier. 3. Torabinejad M., Fouard A.F,. Shabahang S.- Endodontics Principles and Practice., sixth edition , editura Elsevier, 2020. 4. Stephane Simon, Pierre Machtou, Wilhem-Joseph Pertot – Endodontie, Editions CdP, 2020.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**60 %**	**30 %**	**10 %**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				1 Maxillo-Facial Surgery and Radiology					
Discipline				Oral and Cranio-MaxilloFacial Surgery					
Cours title				**ORAL AND MAXILLO-FACIAL SURGERY**					
Responsible for lecture				**Prof. dr. Rotar Horaţiu**					
Responsible for practical activity				Assist. Ostas Daniel					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	2	3	28	42	55	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy of the head and neck, physiology, pathology, physiopathology as well as anesthesia in Dentistry • Ability to analyze clinical anatomical parameters in the clinical case study. • Critical analysis and interpretation of laboratory analyzes. - Writing of correct therapeutic prescriptions. • Ability to perform local and locoregional anesthesia in the maxillofacial region.

Requisities for lectures and practical activities	• Amphitheater with projection system (projector). • Dental offices with dental chairs, salons, intervention rooms.

Professional competences	• Acquire notions of theory and practice specific exam for the specialty. • Acquire basic knowledge of oral (alveolar) surgery.
Transversal competences	• Use the concepts learned in new contexts. • The application of theoretical concepts in practical work. • Establish interdisciplinary correlations in the fields studied. • The ability to communicate effectively with the patient. • Deepen the concern for professional development through training and analytical and synthetic thinking. • Demonstrate participation in research activities such as participation in scientific research.
General objectives	• The course offers students of 4th year Dentistry of the Faculty of Dentistry, fundamental concepts of oral surgery, which is the theoretical and practical basis of other surgical disciplines specialized in the training of the dentist. • The practical work aims to acquire basic knowledge of the surgical anatomy of the head and neck, focusing on the dento-maxillary device and the acquisition of the skills necessary in the practice of oral surgery procedures.
Specific objectives	• Learning the fundamentals of oral surgery, focusing on: the principles of tooth extraction, endodontic surgery, the pathology of teething, periodontal and prosthetic surgery in terms of morpho-functioning. • Learn to practice surgical techniques during oral surgery clinical placements.

LECTURES	
Teaching methods	• Lecture, systematic presentation, interactive lecture, patient presentation of related case.
Content	1. Introduction. Patient assessment. Management of co-morbidities. Features of alveolar dental surgery.
	2. Management of co-morbidities. Features of alveolar dental surgery.
	3. General principles of alveolar dental surgery. Instruments used in alveolar dental surgery.
	4. Simple extraction of temporary and permanent teeth.
	5. Surgical tooth extraction.
	6. Surgical treatments helping endodontic treatments.
	7. Pro-prosthetic surgery.
	8. Pathology of dental eruption.
	9. Dental inclusion.
	10. Periodontal dental trauma.
	11. Peri-osseous oro-maxillofacial infections.

	12. Oromaxillofacial infections of superficial lodges.
	13. Maxillary bone cysts.
	14. Pathology of dental origin of the maxillary sinus.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-Point presentations, interactive teaching.
Practical activity carried out by students	• Practical work with the practical application of the knowledge acquired in the courses; analysis of medical imaging photographs; interpret laboratory tests; discuss the perioperative attitude for patients with associated diseases proposed for oromaxillofacial surgery; oral and maxillofacial surgery treatments.
Content	1. Give examples of the peculiarities of clinical examination and laboratory investigations in patients with oral and maxillofacial diseases.
	2. To illustrate the perioperative attitude for patients suffering from associated diseases, proposed for oromaxillofacial surgery.
	3. Demonstration of tooth extraction using forceps and / or using the elevator. Assisted tooth extraction.
	4. Demonstration of tooth extraction using forceps and / or using the elevator. Assisted tooth extraction.
	5. Demonstration of tooth extraction by alveolotomy. Alveoloplastic tooth extraction. Assisted tooth extraction.
	6. To establish the diagnosis and the surgical treatment helping endodontic therapeutic methods. Demonstration and participation in apical resection.
	7. Exemplify the pathology of dental eruption. Establish the therapeutic indications.
	8. Establish the therapeutic indications in the case of dental inclusions. Demonstration and participation in the extraction of wisdom teeth and / or upper canines.
	9. Establish the therapeutic indications in the case of pro-prosthetic surgical interventions. Demonstration of pro-prosthetic surgery on soft tissues and bone support.
	10. Establish the therapeutic indications in the case of periodontal dental trauma. Give examples and methods of treatment.
	11. Establish the diagnosis and surgical therapeutic indications in the case of oro-maxillofacial infections. Demonstration and participation in the incision of the periosseous abscess. Demonstration and participation in post-operative care in patients with oromaxillofacial infections. Case presentation: periosseous suppuration.
	12. Establish the diagnosis and surgical therapeutic indications in the case of oral, maxillofacial infections. Demonstration and participation in the incision of the abscess of the superficial lodges of the face and neck. Demonstration and participation in post-operative care in patients with oral, maxillofacial infections. Case presentation: suppuration of the superficial lodges of the face and neck.

	13. Establish the therapeutic indications for surgery in the case of maxillary bone cysts. Demonstration and participation in cystectomy. Case presentation: maxillary cyst development or inflammation.		
	14. Establish the diagnosis and surgical therapeutic indications in the case of maxillary odontogenic sinusitis. Demonstration and participation in oral-antral communication plastic surgery. Case presentation: odontogenic maxillary sinusitis.		
Bibliography	• Jean-Christophe Fricain. Chirurgie orale – 2e édition – Référentiel Internat. Espace Id 2019. • Barthélémy, Isabelle, et al. Chirurgie maxillo-faciale et stomatologie: Réussir les ECNi. Elsevier Health Sciences, 2017. • Fragiskos D. Fragiskos – Oral surgery. Springer, Berlin, 2011. • Banerjee A, Watson TF, Pickard HM. Pickard's guide to minimally invasive operative dentistry. Tenth edition. Oxford: Oxford University Press; 2015. • Mitchell DA, Kanatas AN. An introduction to oral and maxillofacial surgery. Second edition. Boca Raton: CRC Press; 2015. • Hupp JR, Ellis E, Tucker MR, editors. Contemporary oral and maxillofacial surgery. Seventhedition. St. Louis: Elsevier; 2019. • Nistor AM. Manual de Chirurgie Orala, Anatomie, Patologie si Tehnici Chirurgicale –Ed. MedicalaCallisto; 2017. Andreasen JO, Andreasen FM, Andersson L, editors. Textbook and color atlas of traumatic injuries to the teeth. Fifth edition. Oxford: Wiley-Blackwell; 2019.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**40%**	**50%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Prosthetic Dentistry
Cours title	**PROSTHETIC DENTISTRY**
Responsible for lecture	**Lect. Dr. Andreea Kui**
Responsible for practical activity	Lect. Dr. Andreea Kui Lect. Dr. Ana Ispas Assist. Dr. Corina Tişler Assist. Dr. Manuela Manziuc
The formative category of	DS

the discipline									
Compulsory discipline				Compulsory					
Year	Sem	hours/week		Hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	1	3	14	42	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Elementary knowledge of teeth morphology, dental materials, occlusion and single-tooth fixed prosthesis.
Requisities for lectures and practical activities	• Amphitheater with video projector. • Dental offices with dental units and all the specific equipment and materials for prosthodontic activity.

Professional competences	• Ability to adequately use the specialty terminology. • Knowledge regarding the etiology, complications and evolvement of partial edentulism. • Appling previous theoretical knowledge in order to correctly establish a complete diagnostic and a treatment plan for a particular case. • Knowledge regarding the indications and contra-indications of fixed partial dentures for partial edentulism. • Understanding the principles of treatment when manufacturing a fixed partial denture. • Developing the practical abilities when preparing one or several abutments for a fixed partial denture. • Understanding the technical processes for manufacturing a fixed partial denture. • Knowing and understanding the clinical steps in performing a fixed partial denture. • Knowing and understanding the impression methods used in fixed prosthodontics as well as the bite registration techniques. • Knowledge of the theoretical aspects on esthetic analysis of a case and of the methods used in prosthodontics for a complete esthetic rehabilitation.
Transversal competences	• The use of assimilated information in new contexts. • Application of theoretical concepts in the practical activity. • Interdisciplinary correlations within the study domains.
General objectives	• Acquiring theoretical and practical notions in order to perform fixed partial dentures to patients with partial edentulism.
Specific objectives	• Practicing the synthesis capacity that a future dentist should have by using also the references in this domain. • Acquiring the notions needed to establish a complete diagnosis and a complete treatment plan for a patient with partial edentulism, using a fixed partial denture. • Practical application of the principles used in establishing a treatment

	plan with a fixed partial denture. • Understanding the interdisciplinary nature of a prosthetic treatment plan. • Establishing a complete treatment plan, depending on the type of edentulism. • Clinical study of different types of prosthetic restorations. • Attending during the practical activity to all the clinical steps required to perform a fixed partial denture, in correlation with acquiring practical skills needed to execute all the clinical stages needed for a particular case.

LECTURES	
Teaching methods	• **Interactive systematic lectures.**
Content	1. Clinical steps in performing a metal-ceramic FPDP – similarities and differences between several technological processes.
	2. Biomechanical and biodynamic principles for the design of a fixed partial denture.
	3. Esthetic principles used in fixed prosthetic dentistry. Specific pre-prosthetic treatments: wax-up techniques/ mock-up techniques in partial edentulism.
	4. Pre-prosthetic treatments non-specific and specific, in case of a fixed partial denture.
	5. Evaluation of the existent prosthetic treatments; different methods used for removal of old/ existent prosthetic restorations.
	6. Clinical steps for performing a FPDP – impression taking; types of impression; methods used for retraction of the gingival sulcus.
	7. Clinical steps for performing a FPDP – inter-occlusal registration for FPDP; types of bite registration.
	8. Clinical steps for performing a FPDP – try-in procedures and cementation of a FPDP; conventional cements used in FPDs.
	9. Definitive cementation of fixed partial dentures.
	10. All ceramic fixed partial dentures - ceramic systems; indications, contra-indications, clinical and technological steps. Clinical steps in performing an all ceramic prosthetic restoration – try-in steps, the use of an adhesive system for cementation.
	11. Maintaining the results obtained by performing the prosthetic treatment.
	12. Full arch fixed prosthesis – tooth supported or implant supported: indications, contra-indications, clinical and technological steps.
	13. Combination between fixed and removable prosthesis – combined fixed and removable prosthetic restorations.
	14. Implant supported prosthetic restorations - indications, contra-indications, advantages, clinical and technological steps.
PRACTICAL ACTIVITIES	

Teaching methods	• Interactive teaching activities.
Practical activity carried out by students	• Analysis of study models. • Performing clinical examinations / completing the examination form. • Simulating dental grinding - fixed metal-ceramic partial denture intra-oral grinding and making temporary prostheses. • Establishing the complete diagnosis in different clinical situations. • Establishing the treatment plan.
Content	1. Case presentations - Clinical steps in performing a metal-ceramic fixed partial denture.
	2. Analyzing the models of a patient with a partial edentulism mounted in an articulator – occlusal plan analysis, considerations regarding the mastication rehabilitation.
	3. Esthetic analysis in case of different clinical situations; establishing the treatment protocol – test 1.
	4. Wax-up analysis and mock-up silicon key on a model with partial edentulism.
	5. Removal of an old fixed partial denture using a destructive disassembly.
	6. Impression taking in a clinical situation – wash technique – test 2.
	7. Impression taking in a clinical situation – sandwich technique.
	8. Try-in procedures of a metal framework in case of a fixed partial denture.
	9. Try-in procedures of a metal-ceramic fixed partial denture – test 3.
	10. Temporary and definitive cementation of a fixed partial denture.
	11. Case analysis of complex edentulous arches – steps in performing a full arch fixed partial denture.
	12. Conceiving complex prosthetic treatment plans - involving fixed prosthetic restorations – test 4.
	13. Case analysis for implant supported prosthetic restorations.
	14. Conceiving complex prosthetic treatment plans - involving fixed and removable dentures.
Bibliography	1. Lasserre Jean Francois`: Fusion. Art et nature dans les restaurations ceramiques. Quintessence Pub 2020. 2. Kui A, Picos A, Picos A, Ispas A. Fixed Partial Dental Prosthesis - Lecture notes. University of Medicine and Pharmacy "Iuliu Haţieganu"; 2018. 2018 p.):201–8. 3. Shilligburg T.H., Hobo S., Whitsett L.D ,,Fundamentals of fixed prosthodontics" Fourth edition. Quint. Publ. Co. Chicago-Tokyo, 2012. 4. Rosenstiel S.F., Land M.F., Fujimoto J. ,,Contemporary fixed prosthodontics", Fifth edition.Mosby Co: St.Louis, 2016. 5. Saini P. Master dentistry. Volume 2: restorative dentistry, paediatric dentistry and orthodontics, 3rd edition. Br Dent J. 2013;215(11):597–597.

	6. Klineberg I, Eckert S, Zarh G. Functional Occlusion in Restorative Dentistry and Prosthodontics. Elsevier Inc; 2016. 7. Erdemir U. Esthetic and Functional Management of Diastema: A Multidisciplinary Approach. Yildiz E, editor. Springer; 2015.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**45%**	**55%**	**50% out of practical exam grade**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 Maxillo-Facial Surgery and Radiology
Discipline	Facial and Neck Surgery and Oro-Rhino-Laryngology
Cours title	**OTO-RHINO-LARINGOLOGY**
Responsible for lecture	**Prof Dr. Albu Silviu MD PhD**
Responsible for practical activity	Assistant Dr Gocea Anamaria MD,PhD
The formative category of the discipline	DD
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	2	2	28	28	19	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Basic semiology and general surgery knoledge. • Basic knowledge regarding the usage of specific instruments and equipment. • Basic clinical and practical ENT knowledge. • Ability to interpret clincial and paraclinical examinations in ENT. • ENT applied knowledge of anatomy and pathophysiology.
Requisities for lectures and practical activities	• Amphitheater with video projector. • Students will have their mobile phones switched-off, recording of lectures with the mobile phone or any other deviced is forbbiden; • Amphitheater with video projector in case certain parts of the stage will be presented in theory. • Examination rooms, wards, operation rooms in the ent

	department of cf cluj hostpital. • Students will need standard surgical department equipment.

Professional competences	• Ability of appropiately using specialty terms. • Familiarisation with theoretical and practical aspects of ENT examination. • Learning ENT pathology. • Applying the learnt theoretical principles and techniques in the practical activity.
Transversal competences	• Learning to correlate between ENT pathology and other medical specialites. • Practically applying the aquired theoretical knowledge. • Establishing interdisciplinary correlations. • Aquiring patient-communication skills. • Raising interest into clinical research.
General objectives	• The lectures aim to provide 4th year students general knowledge of ENT and teach them differential diagnosis and management of patients in this field. • Practical activities teach students the main ENT examination methods, recognising and diagnosing the pathology belonging to this field and the therapeutical principles.
Specific objectives	• Aquiring skills necesary for applying ENT treatment to patients with oro-maxilo-facial affections. • Familiarisation with doctor-patient relation, developing interdisciplinar vision of pathologies and over-all vision of the patient. • Training of synthesizing capacity and literature documentation.

LECTURES	
Teaching methods	• **Power-point presentations, interactive tuition.**
Content	1. Clinical anatomy notions- nasal pyramid and paranasal sinuses. Rhinological physiology and physiopathology notions. Rhinological syndromes: obstructive, secretory, senzitive, senzorial and vascular.
	2. Sino-nasal malformations. Nasal and sinusal trauma. Nasal foreign objects. Infections of nasal skin. Inflammation of nasal mucosa (acute and chronic rhinitis). Inflammation of paranasal sinuses (acute and chronic sinusitis).
	3. Acute and chronic rhinosinusitis. Nasal polyposis Sino-nasal tumors.
	4. Pharynx- clinical anatomy notions. Physiology and physiopathology of pharynx. Pharyngeal syndromes: digestive, respiratory, phonatory, senzitive, sensory.
	5. Pharyngeal malformations. Pharynx foreign bodies. Pharyngeal trauma. Acute non-specific pharyngitis.
	6. Health psychology. Social perception of medical profession.
	7. Acute specific pharyngitis. Acute pharyngitis complications.

	Pharyngitis and hemathological syndromes. AIDS in ENT.
	8. Chronic specific and non-specific pharyngitis. Pharyngeal tumors.
	9. Larynx- clinical anatomy notions. Physiology and physiopathology of larynx. Laryngeal syndromes: senzitive, cough, dysphonia, dyspnea. Respiratory failure caused by superior obstruction.
	10. Tracheostomy. Larynx malformations. Laryngeal trauma. Laryngeal foreign objects. Acute and chronic laryngitis. Motor disfunctions of the larynx. Laryngeal tumors.
	11. Otology- clinical anatomy notions. Physiology and physiopathology of the ear. Otological syndromes: hypoacusis, tinnitus, otalgia, otorrhea. Peripheral vestibular syndrome.
	12. External and middle ear malformations. Ear trauma. Intraauricular foreign bodies. External ear inflammations. Acute and chronic otitis media. Complications of otitis. Otitis sequelae. Inner ear pathology. Neurosenzitive. Neurosenzitive hearing loss. Otological tumors.
	13. Traheobronchial and oesphageal anatomy. Clinical aspects of traheobronchial and oesphageal pathology. Tracheobronchial and oesophageal stenosis. Traheobronchial and oesphageal foreign bodies.
	14. Salivary glands anatomy and pathology.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentations, interactive tuition, clinical activity held in the ENT department.
Practical activity carried out by students	• Case presentations, patient examination, interactive participation in treatment planning and surgical interventions. Programmed interactive learning.
Content	1. Clinical examination in rhinology. Paraclinical tests in rhinology. Anterior and posterior rhinoscopy. Nasal endoscopy. Palpation of paranasal sinuses.
	2. Case presentations of rhinologic pathology.
	3. Clinical examinationf of the pharynx.Para-clinical tests in pharyngology. Oral cavity examination and bucopharyngoscopy.
	4. Clinical case presentation of pharyngeal pathology.
	5. Clinical examination of the larynx. Para-clinical examinations in laryngology.
	6. Palpation of the larynx. Palpation of the cervical lymphnodes. Indirect laryngoscopy. Endoscopy of the larynx.
	7. Clinical case presentation of laryngeal pathology.
	8. Otological examination. Para-clinical tests in otology. Otoscopy.
	9. Hearing evaluation. Examination of peripheral vestibular system.
	10. Clinical case presentation of otological pathology.
	11. Salivary glands examination, interpretation of clinical and paraclinical findings.
	12. Case presentations with salivary glands pathology.
	13. Quiz from the entire material.
	14. Exam simulation. Frequently asked questions.

Bibliography	1. OTORINOLARINGOLOGIE SI CHIRURGIE CERVICOFACIALA, coordonator Sarafoleanu C. în „Tratat de chirurgie", sub redacţia Irinel Popescu, Constantin Ciuce, vol. 1, Editura Academiei Române, 2012. 2. REABILITAREA SI IGIENA VOCII. Muresan R, Chirila M. Editura. Alma Mater, 2010 3. TULBURARILE RESPIRATORII IN SOMN. Sarafoleanu C.- coordonator. Editura Academiei Romane, 2016. 3. EUROPEAN MANUAL OF MEDICINE– OTORHINOLARYNGOLOGY, HEAD AND NECK SURGERY. Anniko M, Bernal-Sprekelsen M., Bonkowsky V., Bradley P., Iurato S. Springer Verlag, 2010. 4. Cummings Otolaryngology, 7th Edition by Paul W. Flint, MD, Bruce H. Haughey, MD, FACS, Valerie J. Lund, CBE, MS, FRCS, FRCSEd, K. Thomas Robbins, MD, FACS, J. Regan Thomas, MD, FACS, Marci M. Lesperance, MD and Howard W. Francis, Editura Elsevier, 2021. 5. Sinonasal Complications of Dental Disease and Treatment by Giovanni Felisati, Matteo Chiapasco. Editura Thieme 2015. 6. ENT-HEAD AND NECK SURGERY: ESSENTIAL PROCEDURES. Theissing J., Rettinger G., Werner J. Editura Thieme Verlag, 2011. 7. Functional and Selective Neck Dissection by Javier Gavilán, Alejandro Castro, Laura Rodrigáñez, and Jesús Herranz. Editura Thieme 2020. 8. Head and Neck Cancer: Management and Reconstruction, 2nd Edition by Eric M. Genden. 2019. 9. Key Topics in Otolaryngology by Roland, McRae, McCombe. Editura Thieme 2019. 10. Rhinology and Skull Base Surgery: From the Lab to the Operating Room - An International Approach by Christos Georgalas , Wytske J. Fokkens. Editura Thieme 2019.

Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**50%**	**0%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	MaxilloFacial Surgery and Implantology

Cours title				**ENDOCRINOLOGY**					
Responsible for lecture				**Prof. Dr. Cristina Ghervan**					
Responsible for practical activity				**Vacancy position Assist. Prof. pos. 3**					
The formative category of the discipline				DD					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Accomplishment of the years I-III of study. • The ability to perform anamnesis and clinical exam in a patient.
Requisities for lectures and practical activities	• Amphitheatre with projection system. • Spaces with facilities specific to practical activities. • Patient rooms of the Endocrinology department. • The students will wear protection equipment and will have stethoscope and clinical stage note-book.

Professional competences	• Acquisition of theoretical notions and practical skills about the diagnosis, treatment and follow-up of endocrine diseases. The ability to evaluate the impact of endocrine diseases upon the oral and dental pathology.
Transversal competences	• The ability to perform in a correct manner the anamnesis and the clinical exam of a patient. • Using assimilated notions in new contexts. • Applying the theoretical notions in the practical activity. • Establishing interdisciplinary correlations within the studied domains. • Ability to communicate effectively with the patient. • Demonstration of the preoccupation for professional development through the training of the analytical and synthetic thinking skills. • Demonstrate involvement in research activities, such as the development of scientific articles.
General objectives	• The course offers to the students of the fourth year of the Dental Faculty the basic notions of endocrinology, the ability to establish the diagnosis of an endocrine disorder and to evaluate the impact of glandular dysfunction upon oral and dento-alveolar pathology.
Specific objectives	• Theoretic knowledge of endocrine pathology. • Abilities concerning the anamnesis and clinical exam in endocrine patient. • Demanding and interpreting hormonal dosages in a patient. • Understanding the treatment of endocrine diseases, the follow-up and the impact of hormonal dysfunction upon oral and dental pathology.

LECTURES	
Teaching methods	• **Oral lecture, Power-Point presentations.**
Content	1. General introduction to Endocrinology, The hypothalamus-pituitary system.
	2. Hypothalamic-pituitary syndromes , Precocious puberty, Diabetes insipidus.
	3. The pituitary tumoral syndrome, Acromegaly.
	4. Prolactinoma , Pituitary insufficiency.
	5. The thyroid gland, Iodine deficiency.
	6. Hyperthyroidism.
	7. Hypothyroidism
	8. Thyroiditis.
	9. The parathyroid glands, Hyperparathyroidism, Hypoparathyroidism.
	10. Osteoporosis.
	11. Adrenal glands, Cusing's syndrome.
	12. Addison's disease.
	13. The gonads, Normal sexual differentiation.
	14. Ovarian failure, Testicular failure.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentations. • Clinical cases demonstration.
Practical activity carried out by students	• Practical application of knowledge gained during the courses; Study on hormonal dosages, clinical imaging investigations, exemplification of pathology with clinical cases.
Content	1. Endocrine semiology: particular aspects of anamnesis in endocrinology.
	2. Particular aspects of clinical exam in endocrinology.
	3. Pituitary tumoral syndrome: elements of anamnesis and clinical exam.
	4. Elements of hormonal and imaging diagnosis. Therapeutic solutions and follow-up. Interactions with oral pathology.
	5. Thyroid pathology - elements of anamnesis and clinical exam.
	6. Elements of hormonal and imaging diagnosis. Therapeutic solutions and follow-up. Interactions with oral pathology.
	7. Parathyroid glands pathology and osteoporosis - elements of anamnesis and clinical exam.
	8. Elements of hormonal and imaging diagnosis. Therapeutic solutions and follow-up. Interactions with oral pathology.
	9. Adrenal glands pathology - elements of anamnesis and clinical exam.
	10. Elements of hormonal and imaging diagnosis. Therapeutic solutions and follow-up. Interactions with oral pathology.
	11. Ovarian and testicular failure - elements of anamnesis and clinical exam.

	12. Elements of hormonal and imaging diagnosis. Therapeutic solutions and follow-up. Interactions with oral pathology.		
	13. Synthesis session, clinical cases evaluation and discussions.		
	14. Synthesis session, clinical cases evaluation and discussions.		
Bibliography	1. Cristina Ghervan „HAND-OUT FOR ENGLISH STUDENTS - ENDOCRINOLOGY" Editura Medicală Universitară "Iuliu Haţieganu" Cluj-Napoca, 2002 (Biblioteca UMF). 2. Endocrinologia Clinică în Medicina Dentară, Carmen Georgescu, Ed Med Univ "Iuliu Haţieganu" Cluj-Napoca, 2009 (Biblioteca UMF).		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70 %**	**20 %**	**10 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca								
Faculty	Dental Medicine								
Domain of study	Health								
Academic degree	Dental Medicine in English								
Level of course	I and II- License and masters								
Qualification	Doctor of Dental Medicine								
Department	10 Neurosciences								
Discipline	Neurology and pediatric neurology. Psychiatry and pediatric psychiatry								
Cours title	**NEUROLOGY. PSYCHIATRY**								
Responsible for lecture	**Lecturer Dr. Stan Adina Dora** **Assist. Crecan-Suciu Bianca**								
Responsible for practical activity	Lecturer Dr. Stan Adina Dora Lecturer Dr. Căpățină Octavia, Assits. Paval Denis, Assist. Lavinia Ionescu								
The formative category of the discipline	DD								
Compulsory discipline	Compulsory								
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Anatomy, morphopathology, physiology and pathophysiology of the central and peripheral nervous system, notions of clinical semiology, notions of general pharmacology. • Neuroanatomy, neurophysiology, medical psychology, neurology, clinical pharmacology. • Medical history, physical examination, neurological

	examination, competencies in communicating the outcome of an assessment, competencies in addressing psychological/psychiatric matters in a multidisciplinary team.
Requisities for lectures and practical activities	• Punctuality. • Food consumption and use of the mobile phone are prohibited during the course. • Punctuality. • Trainee notebook. • Equipment (white gown). • Food consumption and use of the mobile phone are prohibited during the clinical practice. • Each student must complete his or her individual portfolio and abilities with specific information. • Neuroanatomy, neurophysiology, medical psychology, neurology, clinical pharmacology. • Medical history, physical examination, neurological examination, competencies in communicating the outcome of an assessment, competencies in addressing psychological/psychiatric matters in a multidisciplinary team. • Students will attend both courses and clinical activities with their mobile devices closed/on airplane mode. Telephone calls during the course will not be tolerated, nor will students leave the classroom to take their personal phone calls. • Food and drink consumption are not recommended in course time. • It is highly recommended for students to be on time.Each student must complete their individual portfolio and their practical skills handbook according to their specific requirements; For the late submission of various assigned papers/tasks, an evaluation of the clinical activities will be done, and the grading will be done accordingly. • While performing clinical activities, students will respect the confidentiality of patients; they will communicate with respect and empathy with patients and their caregivers. • During the clinical activities, personal conversations over electronic devices, the recording / filming patients as well as other attitudes considered to be inappropriate to the academic environment will not be tolerated.

Professional competences	• To critically analyze and be able to refer patients with neurological disorders to specialist. • To be able to correctly interpret the results of a clinical trial. • Monitor the treatment prescribed in terms of effectiveness and adverse reactions. • To be able to use sources of information on drugs effectively. • To be able to use the terminology appropriately and in context.

	• To properly understand the concepts of normality/abnormality in accordance to the chronological age. • Correct assessment of the main mental functions, their alterations and particularities according to age and pathology. • Knowledge of the steps of psychiatric interview and of the mental state examination. • Diagnostic and clinical evaluation skills in adult, child and third age patients for main mental disorders (from an etiopathogenetic perspective, nosography mapping according to current diagnostic criteria, clinical picture, evolution). • Critical analysis and involvement in the case management for the main mental disorders. • Establishment and maintenance of the therapeutic alliance. • Critical analysis and interpretation of theoretical and practical contents of the discipline in an interdisciplinary approach with other medical/related specialties.
Transversal competences	• Skills of using the resources provided by specialized services/community for people with mental disorders. • Abilities to communicate effectively with patients regardless of their educational, social, cultural or financial status. • Critical thinking skills; use of concepts in new contexts and use of theoretical concepts in solving problems. • Multi-disciplinary/team-work skills. • Have the ability to communicate with the patient. • Preoccupation for professional development by engaging critical thinking skills. • Involvement in research activities, such as the development of scientific articles. • The ability to use digital media for medical information.
General objectives	• Acquiring practical skills to recognize the main neurological syndromes • understanding how neurological patients are treated. • Acquiring the essential knowledge of the assessment and diagnosis of mental disorders and of the main approaches available (pharmacological and non-pharmacologic). At the end of the course, students will be able to understand and participate accordingly in the multidisciplinary team for the management of clinical diagnosis and the contingency plan for the main mental disorders.
Specific objectives	• The recognition of semiological features in neurological patients • Integration of clinical symptomatology in a syndrome • Acquiring theoretical knowledge and direct clinical practice on 3 successive stages: • Neurological semiology. • Neurological syndromology. • Neurological pathology. • Acquiring specific skill sets for the appropriate use of both theoretical

	and practical principles in psychiatry. • Correct application of the clinical guidelines. • Correct use of the diagnosis guidelines according to age groups. • Concepts of prevention, early intervention and multi-modal intervention in the main mental disorders and their application in a multidisciplinary team, promoting the idea of teamwork and complementarity. • Promote mental health and reduce the stigma of psychiatric patients.

LECTURES	
Teaching methods	• Interactive exposition of the material, using power point presentations, didactic movies.
Content	1. Presentation of neurological symptomatology and its classification.
	2. Ischemic and hemorrhagic stroke: etiology, clinical picture, acute phase treatment, immediate and delayed complications, primary and secondary prophylaxis principles, prognosis.
	3. Parkinson's disease: etiology, clinical picture, motor and non-motor complications, therapeutic principles.
	4. Multiple Sclerosis: Clinical forms, treatment and prognosis.
	5. Epilepsy: etiology, classification, clinical picture, therapeutic principles.
	6. Headache syndromes: migraine, Cluster headache, tension headache, primary and secondary trigeminal neuralgia (etiology, clinical picture, treatment).
	7. Coma: definition, etiology, evaluation (Glasgow Coma Scale)
	8. General information about Psychiatry, mental disorders and links to other related fields. Psychotropic treatment and their interactions. Safe approach of a psychiatric patient.
	9. Schizophrenia.
	10. Mood disorders. Suicidal patient.
	11. Anxiety disorders. Eating disorders.
	12. Personality disorders and impulse control disorders.
	13. Disorders of use, abuse, dependence on alcohol and other psychoactive substances.
	14. Mental retardation, Dementia. Psychomotor agitation.
PRACTICAL ACTIVITIES	
Teaching methods	• Presentations of clinical cases, extensive explanations of the notions already presented in the course.
Practical activity carried out by students	• Applying the theoretical knowledge in practice.
Content	1. Presentation of the activities of the department: · visit. · active participation in patient examination. · acquiring the interaction methodology with the neurological patient.
	2. Specific measures for the recognition and assessment of urgencies

	in: Cerebral vascular pathology.		
	3. Specific measures for the recognition and assessment of urgencies in: Parkinson's disease.		
	4. Specific measures for the recognition and assessment of urgencies in: Multiple sclerosis.		
	5. Specific measures for the recognition and assessment of urgencies in: Epilepsy.		
	6. Specific measures for the recognition and assessment of urgencies in: Headache syndromes.		
	7. Specific measures for the recognition and assessment of urgencies in: Coma.		
	8. Patient file. Aspects related to confidentiality and conditions for examining the patient.		
	9. Clinical case of schizophrenia.		
	10. Clinical cases of depression, suicidal imminence, hypomania, mania.		
	11. Clinical case of anxiety, eating disorders.		
	12. Clnical case of personality disorders.		
	13. Clinical case of alcoholism, abuse of psychoactive substances.		
	14. Clinical case of mental retardation, dementia, psychomotor agitation.		
Bibliography	1. Neurology Course (electronic form). 2. Geraint Fuller: Neurological Examination Made Easy, 5th edition. ISBN-13: 978-0702051777 ISBN-10: 0702051772; Ed. Elsevier. 2013. 3. Allan Ropper, Martin Samuels , Joshua Klein (Tufts University School of Medicine, Boston, MA, Adams and Victors Principles of Neurology, ISBN: 9780071794794, McGraw Hill Professional, 2014. 4. Toronto Notes – Comprehensive Medical Reference & Review for MCCQE and USMLE II, Sara Mirali, Ayesh Seneviratne: Psychiatry chapter. 5. Essential in clinical psychiatry for medical students. Ioana Micluția, Cătălina Crișan.Cluj-Napoca. Editura medicală Universitară Iuliu-Haţieganu, 2017.vol 1.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**100%**	**%**	**%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine

Department				8 Surgical specialities					
Discipline				Ophtalmology					
Cours title				**OPHTALMOLOGY**					
Responsible for lecture				**Vacancy position Prof.Univ. pos. 10**					
Responsible for practical activity				**Vacancy position Assist. Prof. pos. 3**					
The formative category of the discipline				DD					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	-
Requisities for lectures and practical activities	• Students will not attend classes / internships with their mobile phones open. Also, telephone conversations during the course will not be tolerated, nor will students leave the classroom in order to take personal phone calls. Consumption of food and drink during the course / internships is not allowed. Delay of students in classes and clinical internships will not be tolerated as it proves to be disruptive to the educational process. • Students will not attend classes / internships with their mobile phones open. Also, telephone conversations during the course will not be tolerated, nor will students leave the classroom in order to take personal phone calls. Consumption of food and drink during the course / internships is not allowed. Delay of students in classes and clinical internships will not be tolerated as it proves to be disruptive to the educational process. White robe.

Professional competences	• Acquiring the basic skills useful for general practice: examining the eye in daylight, instillations, ointment administration, eyelid exam, foreign body extraction, visual acuity measurement, ophthalmoscopic exam, ability to recognize the most frequent pathology (hordeolum, conjunctivitis, minor traumatisms).
Transversal competences	• The ability to perform in a correct manner the anamnesis and the clinical exam of a patient. • Using assimilated notions in new contexts. • Applying the theoretical notions in the practical activity. • Establishing interdisciplinary correlations within the studied domains • Ability to communicate effectively with the patient. • Demonstration of the preoccupation for professional development

	through the training of the analytical and synthetic thinking skills. • Demonstrate involvement in research activities, such as the development of scientific articles.
General objectives	• The course offers to the students of the fourth year of the Dental Faculty the basic notions of ophthalmology, the ability to establish the diagnosis of an ocular disorder and to evaluate the impact of eye pathology upon oral and dento-alveolar pathology.
Specific objectives	• Theoretic knowledge of ocular pathology. • Abilities concerning the anamnesis and clinical exam in patients with ocular pathology. • Demanding and interpreting oculae examinations in a patient. • Understanding the treatment of ocular diseases, the follow-up and the impact of ocular disease upon oral and dental pathology.

LECTURES	
Teaching methods	• **Lectures, discussions, oral presentations, video presentation, Power Point.**
Content	1. Visual function.
	2. Ocular refraction.
	3. Pathology of the Binocular vision and ocular motility system.
	4. Pathology of the external structures (orbit, eyelids, lacrimal system,conjunctiva).
	5. Pathology of the cornea.
	6. Pathology of the sclera.
	7. Pathology of the uveea.
	8. Pathology of the lens.
	9. Hyperintraocular pressure and glaucoma.
	10. Pathology of the retina.
	11. Pathology of the optic nerv.
	12. Pathology of the pupil.
	13. Traumathology of the eye.
	14. Red eye syndrome.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical Demonstrations, Oral presentations adn discussions, video presentation. Clinical cases presentations.
Practical activity carried out by students	• Practical application of knowledge gained during the courses; Study onocular examinations, clinical imaging investigations, exemplification of pathology with clinical cases.
Content	1. Ocular anatomy. Ocular semiology: particular aspects of anamnesis in ophthalmology.
	2. Particular aspects of clinical exam in ophthalmology.
	3.Visual acuity examination.
	4. Visual field examination.
	5. Chromatic sense examination.
	6. Slit examination. Case presentation.

	7.Binocular vision and motility examination. Case presentation.		
	8. Ocular refraction exam.		
	9. Intraocular pressure examination. Glaucoma case presentation. Establishing the diagnosis and follow-up of the patient.		
	10. Cataract. Semiology.Case presentation.		
	11. Fundus examination. Ophthalmoscopy.		
	12.The exam of the orbit, eyelids, lacrimal system. Verifying the permeability of the lacrimal drainage system.		
	13. Students case presentations.		
	14. Synthesis session, clinical cases evaluation and discussions.		
Bibliography	1. **Cristina Nicula**. Ophthalmology, Ed. Med. Univ.“Iuliu Haţieganu” Cluj-Napoca, 2014 (Biblioteca UMF).		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca								
Faculty	Dental Medicine								
Domain of study	Health								
Academic degree	Dental Medicine in English								
Level of course	I and II- License and masters								
Qualification	Doctor of Dental Medicine								
Department	9 Mother and child								
Discipline	Pediatrics								
Cours title	**PEDIATRICS**								
Responsible for lecture	**Lect.Dr. Simona Cainap**								
Responsible for practical activity	Lect. Dr. Slăvescu Kinga Asist. Dr. Alina Grama Asist. Dr. Bota Mădalina Asist. Dr. Simionescu Bianca Asist. Dr. Militaru Mihai								
The formative category of the discipline	DD								
Compulsory discipline	Compulsory								
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	1	2	14	28	8	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Anatomy, Physiology, Pathophysiology, Morphopathology, Medical Semiology, Clinical Pharmacology. • Performing the anamnesis; communication with the patient and identification of individual needs; identification of symptoms,

	signs of disease; Interpretation of results of laboratory or imaging investigations, classification in the syndrome, treatment.
Requisities for lectures and practical activities	• Students will not attend classes / practical work with mobile phones open. Telephone conversations during the course will not be tolerated, nor will students leave the classroom in order to take personal phone calls. • Consumption of food and drink during the course / practical work is not allowed. • Delay of students in class and practical work will not be tolerated as it proves to be disruptive to the educational process. Each student must complete their individual portfolio and skills with specific ones • Mandatory hospital equipment.

Professional competences	• To understand and assimilate knowledge related to the growth and development of the child and the particularities of pathology and prevention of respiratory, digestive, metabolic, reno-urinary, cardiac, hematological, and neurological disorders. • To establish a correct diagnosis according to age groups. • To recognize the main characteristics of pediatric pathologies. • To identify the risk factors in the anamnesis. • To propose recommendations to change the lifestyle likely to reduce the incidence of non-biological / pediatric diseases by participating in the health education of the general population. • To explain to a colleague / mentor, his patient / family the purpose and necessity of the regular medical check-up controls in children. • To frame the symptoms presented by the patient in a syndrome, to be able to make a differential diagnosis, a positive diagnosis. • To be able to explain the need for prophylaxis of infectious diseases, prophylaxis of infections during dental treatments, possible acute and chronic side effects, methods to prevent / combat them and the importance of timing and compliance with treatment. • To evaluate qualitatively and quantitatively the pain and to formulate an analgesic and adjuvant therapeutic strategy (prescription) for a patient with dental pathology, in which the quality of life is altered due to the uncontrolled pain symptoms. • To identify treatment emergencies and to know their specificity in the pediatric patient with the treatment methods. • To monitor and care for the patient with risk factors for dental procedures. • To identify and participate in the treatment of infectious complications in patients with cardiovascular malformations. • To learn to communicate with the pediatric patient / his family, the particularities, and specific impediments. • To understand the anxiety related to the disease and react

	empathetically. • To know the principles of communicating bad news in pediatrics. • To integrate the principles of professional ethics towards the pediatric patient (respect and empathy towards the patient, medical confidentiality.
Transversal competences	• To present a pediatric clinical case. • To critically evaluate a colleague's clinical presentation (differentiates between important and irrelevant information). • Professional development by training critical thinking skills (case analysis).
General objectives	• At the end of the course students will be able to integrate the theoretical notions related to pediatric pathology in clinical practice, by identifying the needs and correct application of therapeutic methods and care specific to the pediatric patient.
Specific objectives	• At the end of the course students will be able: • To analyze the socio-economic impact of children's diseases at the population level. • To synthesize and exemplify the exogenous and endogenous factors of pediatric pathology, as well as primary, secondary, tertiary prevention methods. • To know the indications for prophylactic treatment in pediatrics. • To know the basics related to direct and indirect signs of the disease, confirmation of the diagnosis, investigations necessary to establish the diagnosis and treatment. • To recognize correctly the acute and / or late reactions of different types of pediatric treatment and know the measures needed to combat / prevent them. • To know the types of allergic reactions, the indications of the different stages of antiallergic drugs. • To diagnose a pediatric emergency. • To acquire knowledge related to the particularities of the pediatric patient and the principles of care.

LECTURES	
Teaching methods	• **Teaching courses, discussions, debates.**
Content	1. Introduction in pediatrics. Ages of childhood - newborn, premature.
	2. Growth and development – nutrition.
	3. Congenital diseases. TORCH. Inborn errors of metabolism. Cystic fibrosis.
	4. Respiratory disorders. URTI and pneumonia.
	5. Asthma. Respiratory failure.
	6. Endocarditis.
	7. Congenital heart disease.
	8. Digestive diseases: GERD, acute gastroenteritis.

	9. Chronic diarrhea - malabsorption, chronic hepatitis.		
	10. Renal disorders: UTI, nephrotic syndrome, acute renal failure.		
	11. Bleeding disorders: normal hemostasis, Henoch Schonlein purpura, thrombocytopenia, VW, hemophilia. Splenomegaly.		
	12. Dental fear and anxiety in pediatrics patients.		
	13. Anaplylaxis.		
	14. PBLS-PALS.		
PRACTICAL ACTIVITIES			
Teaching methods	• Bed-side teaching, clinical case presentation. • Discussions. • Debates. • PPT presentation in course room.		
Practical activity carried out by students	• Anamnesis, history, case presentations.		
Content	1. The history and the physical examination in pediatrics.		
	2. Growth and development.		
	3. Congenital diseases. TORCH. Inborn errors of metabolism.		
	4. Pneumonia.		
	5. Asthma.		
	6. Endocarditis.		
	7. Congenital heart disease.		
	8. Malnutrition. Cow's milk protein allergy.		
	9. Celiac disease.		
	10. Hepatitis.		
	11. Immune thrombocytopenic purpura.		
	12. Hemophilia.		
	13. Anaplylaxis.		
	14. PBLS-PALS.		
Bibliography	1. Course support materials, ppt. 2. Behrman R.E. Nelson – Textbook of Pediatrics, 21st ed., Philadelphia 2019.		
Evaluation:	**Written exam**	**Practical exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**30%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials

Discipline				Prosthetic Dentistry					
Cours title				**MEDICAL PRACTICE**					
Responsible for lecture				**Prof. Smaranda Buduru**					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	0	40	0	160	0	160	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Professional competences	• Medical practice activities in dental medicine units.
Transversal competences	• Ability to work in a team during therapeutic procedures.
General objectives	• Acquiring the knowledge of the workflow in dental medicine units.
Specific objectives	• Knowledge of the working dental medicine. units functioning , the patients' and dental instruments' circuits. • Learning and exercising the examination of patients, elaboration of the patient chart. • Learning notions regarding preparation of the instruments for disinfection and sterilization and regarding instrument sterilization. • Knowledge of the specific instruments used in the medical unit where the student goes for summer medical practice. • Diagnosis, treatment plans after clinical examination, radiological examination and study models mounted in articulators.

PRACTICAL ACTIVITIES	
Content	1. Knowledge of the structure and functioning of the dental unit.
	2. Knowledge of the medical records and documents used in the medical dental unit. Completion of medical charts.
	3. Knowing and applying the medical attributes of the dental assistants regarding receiving, registering and preparing the patients for the clinical examination.
	4. Development of communication skills with the patient: patient history, informing and educating the patient. Development of special communication skills according to: sex, age, childhood, or non-cooperating patient.
	5. The preparation of medical instruments: washing, degreasing, syringe and needle control, sterilization, the maintenance and route of sterile materials.
	6. Knowing and applying the attributes of the nurse regarding the maintenance of hygiene norms in the dental medical unit.
	7. Elementary sterilization practices: chemical sterilization, steam sterilization, modern techniques of sterilization. Specifics in Covid era.
	8. Knowledge of the protection methods against infectious diseases in

	the dental office.
	9. Basic knowledge on the dental unit: components, action, and accurate position of the patient and of the physician.
	10. Recognizing the specific instruments for oral examination. Recognizing the specific instruments for dental treatments performed in the dental office.
	11. Development of radiological examination skills in dentistry: x-rays (bite-wing and peri-apical), ortopantomography, CBCT, MRI for TMJ and soft tissues.
	12. Recognasing the occlusal characteristic of the patient: examination and diagnosing the occlusal pathology. Treatment plan for partial edentulism treated with fixed partial dentures: indications, contra-indications, materials.
	13. Clinical and technical lab procedures according to the materials used: preparations, cord insertions, impression, try in and cementation. CAD/CAM techniques: intra-oral scanners, design and knowledge of lab procedure and materials for milling and printing.
	14. The preparation of dental materials for impressions, fillings. Positive and differential diagnosis in dental pathology. Tooth extractions and other oral surgery procedures: indications, techniques. Elaboration of treatment plans and documentation: study models, photos, facial bows.
Bibliography	1. Okeson, J. Management of Temporomandibular Disorders and Occlusion. 8 th Edition. Mosby, 2019. 2. Buduru S. Analiza ocluziei dentare. Ed Napoca Star, 2018 3. Wright E. Manual of Temporo-Mandibular Disorders. 4th Edition, Blackwell Publishing, 2019. 4. Okeson JP. Bell's Oral and Facial Pain. Seventh Edition. Quintessence Publishing; 2014. 5. de Leeuw R,Klasser GD. Orofacial Pain: Guidelines for Assessment, Diagnosis, and Management (AAOP The American Academy of Orofacial Pain), 6th Edition. Quintessence Publishing, 2018. 6. Klineberg I, Eckert S. Functional Occlusion in Restorative Dentistry and Prosthodontics 1st Edition. Elsevier. Mosby, 2015. 7. Buduru S, Almasan O. Notiuni practice de ocluzologie. Napoca Star, Cluj- Napoca, 2009. 8. Fradeani M. Esthetic Rehabilitation in Fixed Prosthodontics. Volume 1, Quintessence Publishing, 2004. 9. Massironi D. Precision in dental esthetics. First Edition, Quintessence Publishing, 2006.
Evaluation:	**Evaluation of the practical activities performed during medical practice.**
Percent of the final note:	-

5TH YEAR

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	MaxilloFacial Surgery and Implantology
Cours title	**ORAL AND MAXILLO-FACIAL SURGERY**
Responsible for lecture	Vacancy position Assoc Prof. pos.14
Responsible for practical activity	Lecturer Dr. Armencea Gabriel Vacancy position Assist Prof. pos. 43 Vacancy position Assist Prof. pos. 46
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	3	3	42	42	66	150	6	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Anatomy of the dento-maxillary apparatus. Physiology of the dento-maxillary apparatus. Pathophysiology. Anesthesia in dental medicine. Oral and maxillofacial surgery. Oral pathology. • The ability to analyze anatomo-clinical parameters in a clinical study case. • The ability to establish a clinical diagnosis in the oro-maxillofacial sphere. • Critical analysis and interpretation of laboratory analyses and paraclinical explorations.
Requisities for lectures and practical activities	• Amphitheater with a projection system. • Laboratories with equipment specific to the practical work. • Cabinets with dental units, salons, treatment rooms, operating rooms.

Professional competences	• Acquirement of theoretical and practical notions for examinations, specific to the specialty. • Acquirement of knowledge regarding the surgical diseases of the dento-maxillary apparatus, with emphasis on the traumatic, infectious and tumor pathology.
Transversal competences	• The use of assimilated notions in new contexts. • The application of theoretical notions in the practical activity.

	• The establishment of interdisciplinary correlations within the studied domains. • The acquirement of the ability to communicate efficiently with the patient. • The thorough thought for professional development through the training of the analytic and synthetic thinking abilities. • The demonstration of the involvement in research activities, such as participation in scientific research.
General objectives	• The course offers to the students of year V of Dental Medicine of the Dental Medicine Faculty theoretical notions regarding the surgical diseases of the dento-maxillary apparatus, with emphasis on the traumatic, premalignant, tumor and cystic pathology. The thorough study of the trauma of maxillofacial soft tissues, maxillofacial skeleton and dento-periodontal traumas correlated with the clinical practice standards. The thorough study of maxillary bone cysts. • The practical work have as objective the acquirement of practical notions regarding the traumatic, tumor and cystic pathology. The thorough study of the trauma of maxillofacial soft tissues, maxillofacial skeleton and dento-periodontal traumas correlated with the clinical practice standards. The thorough study of maxillary bone cysts. The study of oral and facial premalignant lesions. The study of malignant tumors of the oral cavity and of the maxillofacial regions.
Specific objectives	• The acquirement of knowledge regarding surgical diseases of the dento-maxillary apparatus with emphasis on the traumatic, infectious and tumor pathology. • The thorough study of the trauma of maxillofacial soft tissues, maxillofacial skeleton and dento-periodontal traumas correlated with the clinical practice standards. • Infections of the deep veins of the oro-maxillofacial regions. • Premalignant oral and facial lesions. • Malignant tumors of the oral cavity and maxillofacial regions. • Benign tumors of the soft parts and bone parts in the oro-maxillofacial sphere.

LECTURES	
Teaching methods	• **Lecture, interactive and systematic exposure, presentation of patients from relevant cases. Oral presentations and Power-Point presentations.**
Content	1. Lacerations of the soft parts of the face and oral cavity (wounds).
	2. Trauma of the face and maxillofacial skeleton.
	3. Mandible fractures.
	4. Fractures of the middle third of the face.
	5. Fractures of the zygomatic-orbital complex and trauma of the nasal pyramid.
	6. Infections of the deep spaces of the oro-maxillofacial regions. Oral

	floor diffuse infection. Hemifacial diffuse infection. Lymphadenitis. Specific infections. Osteitis and osteomyelitis. Perimaxillary fistulas.
	7. Benign tumors of the soft parts and bones.
	8. Premalignant lesions of the oral cavity and maxillofacial territory. Onset forms of malignant oral and maxillofacial tumors.
	9. Methods of early diagnosis of malignant tumors and their metastases in the oro-maxillofacial regions.
	10. Cancer of the oral floor. Cancer of the buccal region (cheek). Cancer of the intermaxillary commissure.
	11. Gingival cancer and cancer of the hard and soft palate. Cancer of the tongue.
	12. Skin cancer of the face. Malignant oro-facial melanoma.
	13. Cancer of the amxilla and mandible. Maxillary sarcomas.
	14. Surgical, radiotherapy and chemotherapy treatment of the malignant oro-maxillofacial tumors.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentation, interactive teaching.
Practical activity carried out by students	• Interactive programmed learning. Clinical stages with the presentation of the patients in relevant cases, model study, radiography study, patient consultation, assistance during surgical interventions.
Content	1. Consultation of patients - wounds of the soft parts of the face and oral cavity. Assistance with treatment.
	2. Consultation of patients - trauma of the face and maxillofacial skeleton. Assistance with treatment.
	3. Consultation of patients - mandible fractures. Assistance with treatment.
	4. Consultation of patients - fractures of the middle third of the face. Assistance with treatment.
	5. Consultation of patients - fractures of the zygomatic-orbital complex and trauma of the nasal pyramid. Assistance with treatment.
	6. Consultation of patients - infection of the deep spaces of the head and neck. Assistance with treatment.
	7. Consultation of patients - specific infections, osteitis, osteomyelitis, perimaxillary fistulae. Assistance with treatment.
	8. Consultation of patients - premalignant lesions of the oral cavity and maxillofacial territory. Onset forms of malignant oro-maxillofacial tumors. Assistance with treatment.
	9. Methods of early diagnosis of malignant tumors and their metastases in the oro-maxillofacial regions. Assistance with treatment.
	10. Consultation of patients - cancer of the oral floor. Cancer of the buccal region (cheek). Cancer of the intermaxillary commissure. Assistance with treatment.
	11. Consultation of patients - gingival cancer and cancer of the hard and

	soft palate. Cancer of the tongue. Assistance with treatment.
	12. Consultation of patients - skin cancer of the face and malignant oro-facial melanoma. Assistance with treatment.
	13. Consultation of patients - cancer of the maxilla and mandible. Maxillary sarcomas. Assistance with treatment.
	14. Surgical, radiotherapy and chemotherapy treatment of the malignant oro-maxillofacial tumors. Assistance with treatment.
Bibliography	1. Data bases: Pubmed, Medline, Embase, Science Direct, WoS Clarivate Analytics, Clinical Key (Elsevier). 2. Bucur A, Baciut Gr, Surpateanu M. Managementul Afecţiunilor Chirurgicale Oro-Maxilo-Faciale, Ed. Didactică şi Pedagogică, Bucureşti, 2012. 3. Haggerty CJ, Laughlin RM. Atlas of Operative Oral and Maxillofacial Surgery, DOI:10.1002/9781118993729, John Wiley & Sons, Inc. 2015. 4. Fernandes R. Local and Regional Flaps in Head & Neck Reconstruction: A Practical Approach, 2015 John Wiley & Sons, Inc. 2015. 5. Kuriakose MA. Contemporary Oral Oncology. Diagnosis and Management, Springer, 2017. 6. Laskaris G. Color Atlas of Oral Diseases: Diagnosis and Treatment. ed. 4th Edition. Stuttgart: Thieme; doi:10.1055/b-005-148886, 2017. 7. Ferneini EM, Goupil MT. Office-Based Maxillofacial Surgical Procedures. A step-by-step approach, Springer, 2019. 8. Bell RB, Andersen PA, Fernandes R. Oral, Head and Neck Oncology and Reconstructive Surgery, Elsevier, 2019. 9. Sawatari Y. Surgical Management of Maxillofacial Fractures. Quintessence, 2019. 10. Elo J, Herford A. Oral Surgery for Dental Students: A Quick Reference Guide, ed. 1st Edition. Thieme; doi:10.1055/b-006-161151, 2019. 11. Laskaris G. Pocket Atlas of Oral Diseases, ed. 3rd Edition. Stuttgart: Thieme; doi:10.1055/b-006-161180, 2019. 12. Eufinger H, Kübler A, Schliephake H. Mund-, Kiefer- und Gesichtschirurgie. Operationslehre und -atlas. Springer Publishing House, 2021. 13. Cousty S, Laurencin-Dalicieux S. Drug-Induced Oral Complications, Springer Publishing House, 2021. 14. Hupp J.R., Ellis E., Tucker M.R. Contemporary oral and maxillofacial surgery. 7th ed. Elsevier; Philadelphia, 2019. pe Clinical Key: https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20160044133. 15. Raymond J. Fonseca. Oral and Maxillofacial Surgery, Elsevier, 2018 la care avem acces institutional in Clinical Key: https://www.clinicalkey.com/#!/browse/book/3-s2.0-

	C20141001032. 16. Jean-Marc Foletti, Pierre Bouletreau. Chirurgie maxillo-faciale et stomatologie: Réussir son DFASM - Connaissances clés, 2021.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**33,3%**	**33,3%**	**33,4%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Periodontology
Cours title	**PERIODONTOLOGY**
Responsible for lecture	**Lecturer Dr. Andreea Ciurea**
Responsible for practical activity	Lecturer Dr**.** Andreea Ciurea Lecturer Dr. Stefan Adrian Petrutiu Assistant Professor Dr. Cosmin Vasile Cioban Assistant Professor Dr. Daniela Condor Assistant Professor Dr. Cristina Iulia Micu
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	2	3	28	42	48	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Histology, immunology, physio-pathology, microbiology, internal medicine, scientific research methodology. • Clinical studies analysis.
Requisities for lectures and practical activities	• Amphitheater with projection system/ Online virtual system • Preclinical laboratory with specific equipment for practical activity • Dental units. • Application of the internal rules and regulations.

Professional competences	• Ability to use correctly the periodontal terminology. • Ability to perform a full periodontal examination. • Ability to make a correct diagnose and prognostic. • Ability to conceive a treatment plan and monitor its results.

	• Ability to perform supra and sub-gingival scaling manual or mechanical. • Knowledge of the periodontitis general risk factors, their etiological and prophylactic role in periodontitis, the importance of collaboration with the general physician. • Knowledge of periodontal surgery techniques and the capability to explain their necessity. • Ability to collaborate with the periodontist for managing complex interdisciplinary treatments. • Ability to analyze the results of periodontal therapy and to manage the supportive periodontal therapy. • Ability to synthesize in an interdisciplinary manner the clinical data in correlation with the complementary investigations (histological, immunological, biochemical, physio-pathological, microbiological) to assure a correct treatment plan. • Ability to use specific periodontal instruments according to standard international protocols.
Transversal competences	• Ability to communicate with the periodontal patient regarding the periodontal disease. • Ability to motivate and educate the periodontal patient regarding the self-performed plaque control. • Ability to communicate with other professionals for the management of the periodontal systemic factors and conditions. • Application of the theoretical knowledge in the practical activity. • Ability to use the digital tools for patient awareness.
General objectives	• At the end of the activity the student will be able to properly evaluate the periodontal status of the patient and to differentiate the healthy and affected periodontium. The student will be familiar the principles of the evidence-based treatment.
Specific objectives	• Provide the theoretical knowledge about periodontal entities semiology and risk factors. Provide theoretical knowledge regarding the base principles of periodontal treatments and also the therapeutically protocols for different forms of disease. • Provide examination protocols and specific periodontal treatment plans based on the theoretical knowledge. • Provide the necessary knowledge for clinical application of the above notions. • Developing the practical abilities for using the examination and specific treatment protocols by exercising on periodontal models and afterwards in the clinical office. • Developing the ability of synthetizing and communicating with other specialties in order to manage the periodontal affected cases in proper conditions. • Exercising the ability of scientific documentation.

LECTURES	
Teaching methods	• **Lectures, Systematic and interactive lecture, Power point/ oral presentations**
Content	1. Vulnerable anatomical elements of the periodontium and their clinical expression.
	2. Muco-gingival environment. The development of the biofilm on the dental surface. The oral microbiome, dysbiosis and periodontal implications. Microbiologic tests.
	3. The bacterial specificity in different forms of periodontal disease. Bacterial interactions in the sub gingival biofilm.
	4. Pathogenic mechanisms of gingivitis and of periodontitis. Requirements for attachment loss initiation.
	5. Periodontal clinical examination. The examination of the gingival mucosa and of the local risk factors.
	6. Periodontal clinical examination. Clinical signs of periodontal attachment loss: periodontal pocket, furcation lesion, mobility, gingival recession.
	7. Radiological examination in periodontology. Trauma of occlusion.
	8. Classification of periodontal status and conditions. Gingival and periodontal health. Classification of gingival diseases - clinical entities-description, positive and differential diagnosis.
	9. Classification of periodontal disease. Staging and grading. Periodontitis- clinical entities, positive and differential diagnosis.
	10.Systemic risk factors associated with periodontal disease – classification, genetic factors, stress, smoking.
	11. Systemic risk factors associated with periodontal disease – diabetes/The management of the diabetic patient suffering of periodontitis; Cardiovascular disease. The prophylactic and therapeutic management of these 2 related complex diseases.
	12. Periodontal emergencies: necrotizing periodontal entities, periodontal abscess, herpetic gingival-stomatitis.
	13. Furcation involvement: clinical examination and treatment.
	14. Periodontal treatment plan. Staging of periodontal therapy by the type and the gravity of the destruction. The role the personal plaque control in periodontitis patient. Initial therapy in periodontitis.
PRACTICAL ACTIVITIES	
Teaching methods	• Power point presentations, interactive presentation, providing written protocols. Providing case definitions. Filmed demonstrations.
Practical activity carried out by students	• Preclinical exercises of evaluation of clinical parameters on periodontal learning models. • Evaluation of clinical cases. • Anamnestic and intervention exercising on clinical cases. • Exercising the clinical procedure.
Content	1. Evaluation of: probing pocket depth, attachment level, gingival recession, furcation on periodontal models (preclinical encounter).

	2. Radiographic evaluation of the alveolar bone (preclinical encounter).		
	3. Interpretation of diagnostic based upon evaluated clinical and nonclinical parameters: case study (preclinical encounter).		
	4. Clinical evaluation of dental hygiene and gingival inflammation. Recording the data in the observation chart (clinical encounter).		
	5. Clinical evaluation of: pocket probing depth, attachment loss, gingival recession, furcation. Data recording in the observation chart (clinical encounter).		
	6. Clinical evaluation of: pocket probing depth, attachment loss, gingival recession, furcation. Data recording in the observation chart (clinical encounter).		
	7. Periodontitis: identification of the etiological risk factors. Establishing the diagnostic and treatment plan (clinical encounter).		
	8. Risk factors identification; Risk factors modulation in the initial therapy stage. (clinical encounter).		
	9. Gingival recession: etiologic risk factors determination; diagnostic and nonsurgical treatment plan determination (clinical encounter).		
	10. Gingival recession: etiologic risk factors determination; diagnostic and surgical treatment plan determination (clinical encounter).		
	11. Periodontitis patient examination. Establishment of the individualised, complex treatment plan (clinical encounter).		
	12. Periodontitis patient examination. Establishment of the individualised, complex treatment plan (clinical encounter).		
	13. Supragingival calculus diagnostic. Supragingival scaling (clinical encounter).		
	14. Subgingival calculus diagnostic. Subgingival scaling (clinical encounter).		
Bibliography	1. Roman A et al. Parodontologie 1. Noțiuni de bază. Ed Med Univ Iuliu Hatieganu 2019 (ISBN 978-973-693-902-0). 2. Soancă A, Roman A. Concepts in Periodontal Therapy. Ed Med Univ Iuliu Hatieganu, 2019 (ISBN 978-973-693-897-9). 3. Roman A., Soancă A. Clinical manual of periodontology, Ed Med Univ Iuliu Hatieganu 2011 (ISBN 978-973-693-471-1). 4. Newman MG, Takei H, Klokkevold PR, Carranza FA. Newman and Carranza's Clinical Periodontology, 13th Edition, Elsevier, 2018. 5. Lang NP, Berglundh T, Giannobile WV, Sanz M(Eds). Lindhe's Clinical Periodontology and Implant Dentistry, 7th Edition, Wiley-Blackwell, Munksgaard, 2021(ISBN: 978-1-119-43888-5).		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				3 Oral Rehabilitation					
Discipline				Oral Rehabilitation					
Cours title				**ORAL REHABILITATION**					
Responsible for lecture				**Prof. dr. Aranka Ilea**					
Responsible for practical activity				Assist. Dr. Pop Andreea Assist. Dr. Feurdean Claudia Assist.45 - vacancy					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	9	2	3.5	28	49	48	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of Odontology, Endodontics, Prosthetics, Periodontology, Maxillofacial Surgery, Implantology, Orthodontics, Internal Medicine, Pharmacology, Pathophysiology.
Requisities for lectures and practical activities	• Amphitheater with projection system/Online platform. • Laboratories with facilities specific to practical activities/ Online platform.

Professional competences	• Acquisition of knowledge related to complex oral rehabilitation of patients. The holistic approach of the patient in the dental medicine office. • The ability to decide on the opportunity of a dental operation in the context of the presence of a general condition. • The ability to evaluate the particularities of the dental treatment performed in patients with general conditions. • The ability to evaluate the bidirectional interrelationship between general disorders and oral cavity pathology. • How the therapeutic decision is influenced in the dental medicine cabinet by the metabolic and functional imbalances. • The way in which the therapeutic decision is influenced in the dental medicine cabinet by the complex chronic treatments of the patients. • Prevention of transmission of infectious diseases in the dental office.

Transversal competences	• Integration of the concepts assimilated in Ododntology, Endodontics, Prosthetics, Periodontology, Maxillofacial Surgery, Implantology, Orthodontics, Internal Medicine, Pharmacology, Pathophysiology in the context of complex oral rehabilitation. • The application of theoretical notions in practical activity. • Establishing interdisciplinary correlations in the studied fields.
General objectives	• Acquiring knowledge about complex oral rehabilitation of the patients. • Particularities of dental treatment in patients with comorbidities.
Specific objectives	• Specific preparation of the patient with comorbidities in order to rehabilitate the oral cavity. • Establishing the opportunity of dental treatments for the patient with general disorders. • Specific patient preparation with associated conditions, optimal response time and post-interventional follow-up. • Complex rehabilitation of affected dento-maxillary system functions on stabilized dento-periodontal structures.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive exposure** • **Oral displays, Power-Point presentations.**
Content	1. The concept of oral rehabilitation. Holistic approach of the patient in the dental office.Case report. Medical documents used in dental office.
	2. Particularities of dental treatments in patients with cardiovascular disease – hypertension.
	3. Particularities of dental treatments in patients with cardio-vascular disease – ischemic heart disease.
	4. Particularities of dental treatments in patients with cardiovascular disease – heart rhythm disorders. Oral anticoagulants.
	5. Particularities of dental treatments in patients with cardiovascular disease – heart failure.
	6. Particularities of dental treatment in the patient with cardiovascular disease – bacterial endocarditis.
	7. Risks of the patient with metabolic syndrome in the dental office. Particularities of dental treatments in patients with mellitus diabetes.
	8. Particularities of dental treatment in the patients with metabolic syndrome, obesity.
	9. Particularities of dental treatment in the patients with neurological disorders: ischemic and hemorrhagic stroke , paresis and facial paralysis.
	10. Particularities of dental treatment in the patient with neurological disorders: paresis and facial paralysis.
	11. Particularities of dental treatment in patients with neurological disorders: multiple sclerosis; secondary trigeminal neuralgia.
	12. Particularities of dental treatment in patients with epilepsy.
	13. Risks of the patient with metabolic and functional unbalanced liver diseases in the dental office.

	14. Infectious risk of the patient with viral hepatic diseases, blood post-exposure accidents and infection control in the dental office.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point interactive teaching presentations. Practical demonstration.
Practical activity carried out by students	• Exooral, endooral and general clinical examination. • Staging of dental treatment in the context of general condition. • Carrying out the learned techniques.
Content	1. Examination of patients with general disorders and dental conditions. Anamnesis, local and general objective exam.
	2. Preparation of the observation sheet. Establishing the diagnosis of oro-dental affections and diagnosis of general condition.
	3. Conducting the treatment plan in the context of the general illness. The medical prescription in the dental office.
	4. Circuit of medical documents in the dental office.
	5. Restoration of the oral cavity structures and functions in adult patients addressed to a dental clinic.Patients with cardiovascular disease.
	6. Performing dental treatments, scaling, extractions in patients with diabetes mellitus.
	7. Performing dental treatments, extractions, suppuration incisions in patients with obesity and metabolic syndrome.
	8. Dental treatment, extractions, suppurations incision in patients with neurological disorders – strokes.
	9. Perform dental treatments, scaling, extractions, suppuration incisions in patients with neurological disorders - multiple sclerosis, essential and secondary trigeminal neuralgia.
	10. Performing dental treatments, extractions, suppurations incision in patients with neurological - epilepsy disorders.
	11. Performing dental treatments, extractions, suppuration incision in patients with liver disorders.
	12. Performing dental treatments, scaling, extraction, suppuration incisions in patients with cirrhosis.
	13. The follow-up of oral cavity pathology in patients with comorbidities in the dental office.
	14. Practical Exam - case report.
Bibliography	1. Scully, s Medical problems in dentistry - C. Scully, Churchill Livingstone, 7th edition, 2014, ISBN: 9780702054013, eBook ISBN: 9780702065583, eBook ISBN: 9780702059636. 2. Ghid de abordare a pacientului cu paralizie facială în cabinetul stomatologic - Ilea Aranka. Editura Școala Ardeleană; București, Editura Eikon; Cluj-Napoca, 2015, ISBN 978-606-8770-13-0; ISBN 978-606-711-323-5. 3. Reabilitare Orală – G. Băciuț, M. Băciuț, R.S. Câmpian, C. Balog, D. Pop – Ed Medicală Universitară ”Iuliu Haţieganu”, Cluj Napoca, 2002, ISBN 973-8019-90-7. 4. Implicațiile multidisciplinare în durerea orală și cranio-facială - A.

	Rotaru, C. Sarbu, R.S. Câmpian, I. Munteanu, H. Rotaru – ED. Clusium, Cluj Napoca, 2001, ISBN 973-555-299-X.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**30%**	**60%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Health
Cours title	**DENTAL OFFICE MANAGEMENT**
Responsible for lecture	**Prof. Dr. Lucaciu Ondine**
Responsible for practical activity	Associate Prof. Dr. V.10 Lecturer Dr. Alexandru Mester As. Dr. Ovidiu Aghiorghiesei
The formative category of the discipline	DC
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	1,5	2	21	28	26	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• General concepts of management.
Requisities for lectures and practical activities	• Virtual amphitheater with a projection system. • Clinical activities .

Professional competences	• Knowledge of requirements for setting up a dental office. • Knowledge of the organization of a dental office. • Knowledge of health care systems and of the Romanian health care system in particular. • Basic concepts regarding dental office management. • Basic concepts regarding the marketing techniques used in a dental office. • Management of resources necessary for the functioning of a dental office.
Transversal	• Application of theoretical concepts to practical work.

competences	• Establishment of interdisciplinary correlations in the studied fields.
General objectives	• Knowledge of basic concepts of dental office management.
Specific objectives	• Acquisition of concepts related to the health care system. • Acquisition of concepts related to the science of management in medical units. • Acquisition of knowledge related to human resource management in the dental office. • Acquisition of knowledge related to the management of financial resources in the dental office. • Acquisition of knowledge related to the management of communication in the dental office. • Acquisition of knowledge related to dental office marketing. • Acquisition of knowledge related to health economics principles and financing of health care services. • Practicing synthesis and bibliographic documentation skills.

LECTURES	
Teaching methods	• **Lecture, systematic interactive presentation**
Content	1. Introduction to general management.
	2. The dental office brand.
	3. Principles of marketing in the dental office.
	4. Health care management – the science of management in medical units – the role of the manager.
	5. Health care management – the science of management in medical units – the role of leader.
	6. Health care management – the science of management in medical units – entrepreneur.
	7. Human resource management in the dental office (curriculum vitae, letter of intention for employment, job interview).
	8. Human resource management in the dental office (curriculum vitae, letter of intention for employment, job interview).
	9. Human resource management in the dental office (curriculum vitae, letter of intention for employment, job interview).
	10. Management of communication in the dental office.
	11. Management of communication in the dental office. The treatment plan.
	12. Management of financial resources in the dental office.
	13. Health economics principles. Financing of health care services.
	14. Presentation of the basic health care models and the model used in Romania.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching.

Practical activity carried out by students			
Content	1. Workplace Safety Training.		
	2. Infectious control and management of hazardous materials in the dental office.		
	3. The instrument circuit in the Dentistry office.		
	4. Filling in patient's records.		
	5. Discussing with the patient the informed consent and GDPR.		
	6. Clinical management of difficult cases.		
	7. Carrying out the treatment plan.		
	8. Interdisciplinary communication in complex treatments.		
	9. Communicating the treatment plan to the patient.		
	10. Peculiarities of dental treatment among pediatric patients.		
	11. Peculiarities of dental treatment among geriatric patients.		
	12. Peculiarities of dental treatment among anxious patients.		
	13. Overview.		
	14. Overview.		
Bibliography	1. Gorczyca, Ann Marie. It All Starts With Marketing. Editura Authority Publishing, 2015. 2. Moffet, David. How To Build The Dental Practice Of Your Dreams. Editura Advantage Media Group, 2015. 3. Okuji, Michael M. Dental Benefits And Practice Management: A Guide For Successful Practices. Editura John Wiley & Sons, 2016. 4. Scambler, Sasha Jane et al. Sociology And Psychology For The Dental Team. Editura Polity Press, 2016. 5. Miller, Chris H. Infection Control And Management Of Hazardous Materials For The Dental Team. Editura Elsevier, 2017. 6. Polansky, Barry. The Complete Dentist: Positive Leadership And Communication Skills For Success. Editura Wiley, 2017.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**%**	**30%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and radiology
Discipline	MaxilloFacial Surgery and Implantology
Cours title	**DENTAL IMPLANTOLOGY**

Responsible for lecture				**Prof. Dr. Bran Simion**					
Responsible for practical activity				Assist. Dr. Barbur Ioan Assist. Dr. Opriș Horia					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of prosthetic restorations (clinical and in the dental laboratory). Morphology and function of the oral system. Dental prosthetics. Dental materials. • The ability to analyze the anatomical, clinical and radiological parameters during a case study. • The ability to make various dental impressions.
Requisities for lectures and practical activities	• Location for course unfolding – amphitheater with projection systems. • Laboratories that offer proper conditions for the practical courses to unfold. • Offices with dental chairs.

Professional competences	• Acquiring the theoretical and practical notions that concern the technology of implant-supported dentures.
Transversal competences	• The use of the acquired knowledge in new contexts. • The implementation of theoretical notions in practical situations. • Establishing inter-disciplinary correlations between the studied subjects. • Gaining the ability to communicate efficiently with the patients. • Underlining the interest for constant professional improvement by training the analytical and synthetical thinking. • Taking part in research.
General objectives	• The course offers the ifth year students of the Dental Medicine Faculty basic notions concerning implant-supported dentures. • Acquiring knowledge of diagnosis in implant-supported dentures. Studying the implant's components. • Manufacturing implant-supported dentures and studying their maintenance. • The practical courses have the same objectives, from a practical point of view.
Specific objectives	• Studying basic notions concerning implant-supported dentures. • Acquiring knowledge of diagnosis in implant-supported dentures. • Studying the implant's parts.

	• Manufacturing implant-supported dentures and studying their maintenance.

LECTURES	
Teaching methods	• **Lecture, Systematic and interactive explanations. Oral presentations, Power-Point presentations.**
Content	1. Introduction in Implantology. The steps of implant treatment. Terminology.
	2. Examination and diagnosis in Oral Implantology. 2.1 Clinical diagnosis. 2.2 Prosthetic diagnosis. 2.3 Occlusal diagnosis.
	3. Indications and contraindications in Oral Implantology. Types of totally or partially edentulous dental arches.
	4. Insertion of endosseous dental implants. Dental implant surgical guides. 3D planning.
	5. Implant supported dentures. Progressive bone loading.
	6. Taking impressions of the implants. Direct and indirect impression methods.
	7. Prosthetic abutments.
	8. White and red aesthetics.
	9. Conception and manufacturing of the superstructure.
	10. Cement-retained crowns and bridges. Screw-retained crowns and bridges.
	11. Single tooth restaurations.
	12. Special means-retained crowns and bridges. Mixt dentures – teeth and implant supported.
	13. The maintenance of implant supported dentures.
	14. Treating the complications in implant prosthetics. Repairing the dentures.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching.
Practical activity carried out by students	• Interactive teaching. Practical courses that consist of presenting methods to produce the implant supported dentures.
Content	1. Introduction in Implantology. The stages of implant treatment. Terminology.
	2. Examination and diagnosis in Oral Implantology. • Clinical diagnosis • Prosthetic diagnosis • Occlusal diagnosis
	3. Indications and contraindications in Oral Implantology. Types of totally or partially edentulous dental arches.
	4. Insertion of endosseous dental implants - surgical guides. 3D planning

	software.		
	5. Implant supported dentures. Progressive bone loading.		
	6. Taking impressions of the implants. Direct and indirect impression methods.		
	7. Prosthetic abutments. Red and white aesthetics.		
	8. Conception and manufacturing of the superstructure.		
	9. Cement-retained crowns and bridges. Screw-retained crowns and bridges.		
	10. Single tooth restaurations.		
	12. Special means-retained crowns and bridges.		
	13. Combined dentures – teeth and implant supported.		
	13. The maintenance of implant supported dentures.		
	14. Treating the complications in implant prosthetics. Repairing the dentures.		
Bibliography	1. Data bases: Pubmed, Medline, Embase, Science Direct, WoS Clarivate Analytics, Clinical Key (Elsevier). 2. Sonick M, Hwang D. Implant Site Development, John Wiley & Sons Inc. 2012. 3. Miloro M, Kolokythas A. Management of Complications in Oral and Maxillofacial Surgery, DOI:10.1002/9781118704493, John Wiley & Sons Inc. 2012. 4. Felisati G, Chiapasco M. Sinonasal Complications of Dental Disease and Treatment: Prevention–Diagnosis–Management. ed. 1st Edition. Stuttgart: Thieme; doi:10.1055/b-006-149711, 2015. 5. Froum SJ. Dental Implant Complications: Etiology, Prevention, and Treatment, 2, John Wiley & Sons Inc. 2016. 6. Resnik RR, Misch CE. Avoiding Complications in Oral Implantology, Elsevier, Mosby, St. Louis, USA, 2017. 7. Resnik, Randolph R. Misch's Contemporary Implant Dentistry, editia a 4-a, Editura Elsevier, 2020. 8. Galante JM, Rubio NA. Digital Dental Implantology. From Treatment Planning to Guided Surgery, Springer, 2021.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**30%**	**%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials

Discipline				Dental Propedeutics and Esthetics					
Cours title				**ESTHETICS IN DENTAL MEDICINE**					
Responsible for lecture				**Assoc. Prof. Dr. Alexandra Aghiorghiesei**					
Responsible for practical activity				Conf. Dr. Alexandra Aghiorghiesei Conf. Dr. Marius Manole Șef. Lucr. Dr. Cristina Gasparik Asist. Univ. Dr. Bianca Varvară Asist. Univ. Dr. Corina Prodan					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of Dental Morphology. • Notions of Odontology. Direct restorations of teeth. • Notions of Dental Prosthodontics – indirect restorations of the dental arches. • Notions of Dental Materials. • Notions of patient examination in dentistry. • Preparations for direct and indirect restorations.
Requisities for lectures and practical activities	• 70% of the lectures- Compulsory attendance. • Amphitheater with multi-media system for projection • 100% compulsory attendance. • Completion of required practical tasks. • Laboratories and dental offices with specific equipment required for the practical activities. • Review presentation.

Professional competences	• The ability to use specialized terminology, properly and in context. • Knowledge of the particularities of esthetic perception. • Acquiring general information regarding doctor- patient and doctor-technician communication methods in esthetic dentistry. • Knowledge of the examination techniques used in esthetic dentistry. • Acquiring general information regarding notions of facial, dento-facial and dental esthetics. • Knowledge of the modern methods of reestablishing the esthetic aspect of the dental arches, with direct and indirect restorations. • Knowledge of the visual and instrumental methods used for shade assessment in dentistry. • Acquiring general information regarding diagnosis and treatment methods of dental dyschromia.
Transversal	• Ability to use the information in a new context.

competences	• Ability to apply the theoretical knowledge on a practical basis. • Ability to establish connections between the studied subjects.
General objectives	• Acquiring information related to facial, dento-facial and dental esthetics, required for complex, esthetic rehabilitations of the dental arches.
Specific objectives	• Knowledge of the general principles of dentist-patient-dental technician communication in the field of esthetic perception. • Knowledge of the ideal norms of facial esthetics. • Knowledge of dento-facial esthetics – relations of the dental arches with the face and lips. • Knowledge of dental esthetics and optical properties of teeth. • Knowledge of treatment methods for dental dyschromia.

LECTURES	
Teaching methods	• **Systematic, interactive lectures supported by PowerPoint presentations.**
Content	1. Introduction. Definition- Esthetic Dentistry, Relation with the branches of Dentistry. Esthetic perception. Factors that influence the Esthetic perception.
	2. Facial esthetics. Frontal and profile assessment in clinical rest position.
	3. Dento-facial esthetics: the relations between teeth and facial soft tissues assessed in clinical rest position, smile and during speech.
	4. Esthetics of the dental arches. Shape of the dental arch. Frontal arch. Symmetry of the dental arches. Position of the interincisal line/ maxillary vs mandibular. Angulation of the dental longitudinal axis. Interdental Contact areas, dental embrasures.
	5. Dental esthetics. Dental shape, Anatomic and apparent dental dimensions. Convexity of the labial surfaces. Texture of the labial surface. Gingival Esthetics.
	6. General principles of dentist-patient-dental technician communication in the field of esthetic perception: verbal and written communication methods. Visual communication. Preview methods: Virtual smile design.
	7. General principles of dentist-patient-dental technician communication in the field of esthetic perception. Preview methods: The wax-up technique. Types of wax-up. Digital and analogue methods.
	8. General principles of dentist-patient-dental technician communication in the field of esthetic perception. Preview methods: The mock-up technique. Indirect and direct mock-up. Motivational mock-up.
	9. General principles of dentist-patient-dental technician communication in the field of esthetic perception. Preview methods: Short-term and long-term provisional restorations.
	10. Optical properties of the dentition. The notion of color. Color parameters: hue, chroma, value. Translucency, fluorescence and opalescence of the dental structures. Correlations between dental structures and color.

	11. Shade assessment in dentistry. Visual assessment methods: hue-based and value-based shade guides.
	12. Shade assessment in dentistry. Instrumental assessment methods: dental spectrophotometers, colorimeters and other instruments. Combined methods for shade assessment.
	13. Dental dyschromia. Definitions. Classification. Etiology and diagnosis.
	14. Dental dyschromia. Treatment methods.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical demonstrations and exercises in the simulation lab and dental office.
Practical activity carried out by students	• Color matching exercises using different shade assessment methods. • Photography exercises. • Completion of an esthetic form. • Digital Smile Design exercises in Power Point. • Preparations for veneers. • Composite stratification exercises. • Presentation of a review paper.
Content	1. Visual color assessment. Visual shade matching exercises using different shade guides.
	2.Instrumental color assessment. Shade matching exercises using different instruments.
	3. Completion of the esthetic examination form – frontal and profile extra-oral examination.
	4. Completion of the esthetic examination form – intra-oral examination.
	5. Digital Smile Design – completion of the DSD workflow in PowerPoint: case 1.
	6. Digital Smile Design – completion of the DSD workflow in PowerPoint: case 2.
	7. Dental photography exercises: extra-oral photography.
	8. Dental photography exercises: intra-oral photography.
	9. Composite stratification exercises. Histological stratification – part 1.
	10. Composite stratification exercises. Histological stratification – part 2.
	11. Preparation exercises for labial veneers.
	12. Preparation exercises for veneers with proximal and oral extension.
	13. Review presentations.
	14. Review presentations.
Bibliography	1. Aghiorghiesei AI. Esthetics in Dental Medicine - Suport de curs în format electronic. Cluj-Napoca, 2022. 2. Dudea D. Noţiuni de examinare în estetica dento-facială. Ed Grinta, 2010. 3. FB Naini. Facial Aesthetics. Concepts and Clinical Diagnosis. Wiley-Blackwell 2011. 4. Fradeani M. Esthetic Analysis. A systematic Approach to Prosthetic Treatment Quintessence books, 2004. 5. Chu S, Paravina R, Devigus A, Mieleszko A. Fundamentals of Color,

	Shade matching and Communications in Esthetic Dentistry. 2nd ed Quintessence Publishing Co, Inc, 2010. 6. Shillinburg HTJr. Fundamentals of fixed prosthodontics, 4th ed., Quintessence Publishing Co Inc., 2012. 7. Lazarescu F (sub redactia) Comprehensive Esthetic Dentistry. Quintessence Publ, Berlin 2015. 8. WR Profitt et al. Contemporary Orthodontics. Sixth Edition. Elsevier Inc 2019. 9. Goldstein R, Chu S, Lee E, Stappert C, Goldstein R. Esthetics in dentistry. 3rd ed. Wiley Blackwell; 2018. 10. Freedman G. Contemporary esthetic dentistry. St. Louis, Mo.: Elsevier; 2012. 11. Levine J. Smile design integrating esthetics and function. Edinburgh: Elsevier; 2016.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**30%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Community medicine
Discipline	Forensic Medicine
Cours title	**FORENSIC MEDICINE**
Responsible for lecture	**Lecturer Dr. Chiroban Ovidiu**
Responsible for practical activity	Lecturer Dr. Chiroban Ovidiu Assist. Dr. Ureche Daniel
The formative category of the discipline	DD
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Anatomy, Pathological Anatomy, Physiopathology, Semiology, Orthopedy, Neurosurgery, Radiology, Psychiatry.
Requisities for lectures and	• Students will not attend courses / practical activity with open mobile phones. Also, telephone conversations will not be

practical activities	tolerated during the course, nor do students leave the classroom to take personal phone calls. • Food and beverages are not allowed during the course / practical activity. • The student's delay in the course and practical work will not be tolerated as it proves disruptive to the educational process. • Students will not attend courses / practical activity with open mobile phones. Also, telephone conversations will not be tolerated during the course, nor do students leave the classroom to take personal phone calls. • Food and beverages are not allowed during the course / practical activity. • The student's delay in the course and practical work will not be tolerated as it proves disruptive to the educational process.

Professional competences	• To know the importance and purpose of legal medicine in modern society as an interface between Medicine and Justice. • To familiarize with the types of forensic activities: forensic medicine, clinical legal medicine, legal medicine laboratory and the necessary legal and medical knowledge, no matter the specialty they will be in the future;To be able to recognize a forensic situation and act accordingly in accordance with the legal provisions. • To know the main types of forensic law - certificate, report of findings, expert report / new expertise, analysis bulletin and approval.
Transversal competences	• To demonstrate preoccupation for professional development by engaging critical thinking skills. • To demonstrate involvement in research activities, such as the development of scientific articles. • To demonstrate the ability to use digital media for medical information.
General objectives	• At the end of the course the students will know the types of forensic activities: legal medicine prosecution, clinical legal medicine, legal medicine laboratory and the necessary legal and medical knowledge, will be able to recognize a forensic situation and act accordingly, in accordance with the legal provisions.
Specific objectives	At the end of the course students will be able to: • To know the procedures underlying the necropsy request forensic medicine and the situations in which forensic necropsy is required. • To be able to determine the way of death, to distinguish between non-violent death and violent death. • To acquire the notions of tanatogenetic mechanisms and tanatogenerator syndromes in both violent and non-violent deaths. • Knowledge of early and late cadaveric changes (signs of real death), natural phenomena for the preservation of corpses, artificial methods of conservation, techniques of tanatopraxia. • Be able to do an external examination of the body with a focus on the

	type of death and possible causes of death and the recognition of a potential forensic case. • To know the role of clinical legal medicine and the situations when forensic examination is required in the living person. • Assimilate the types of forensic examinations. • To do the clinical examination with the identification of the legal aspects: traumatic injury findings - specifying their characteristics. • To assess the severity of bodily injuries in accordance with CP provisions - to enumerate the provisions of art. 180, 181, 182 CP, understanding the notion of days of medical care. • To know the types of complementary forensic examinations: forensic toxicology, forensic serology, histopathology. • Acquiring basic notions regarding toxicity, toxicity, particularities of forensic toxicology in relation to clinical toxicology.

LECTURES	
Teaching methods	• **Systematic exposure, conversation, demonstration, case report. Oral exposures, PowerPoint presentations, movies.**
Content	1. Overview in forensic medicine, Juridical bases, Legislation.
	2. Thanatology. Forensic Entomology.
	3. Injuries and death caused by its own means of attack - human defense.
	4. Injuries caused by weapons. Falling and precipitation injuries.
	5. Forensic road accidents. Forensic Firearms.
	6. Mechanical asphyxiation.
	7. Physical agents. Chemical agents.
	8. Forensic examination of the body, autopsy and exhumation of corpses.
	9. The forensic examination of life persons. The forensic examination in obstetrics and gynecology.
	10. Expertise in civil and family law.
	11. Forensic sexology aspects.
	12. Psychiatric expertise.
	13. Methodology of forensic examination in delaying and interruption of prison sentence. Expertise forensic work capacity.
	14. Malpractice. Expertise of DNA and other kind of forensic identification.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic exposure, conversation, demonstration, case report. Oral exposures, PowerPoint presentations, movies.
Practical activity carried out by students	• They need to demonstrate concern for professional development through training the critical thinking skills. • Demonstrate involvement in research, such as the development of scientific articles. • Demonstrate the ability to use digital methods for medical information.

Content	1. Introduction to legal medicine activity. Juridical bases, Legislation.		
	2. Thanatology.		
	3. Traumatic injuries.		
	4. Injuries and death caused by its own means of attack - human defense.		
	5. Injuries caused by weapons. Falling and precipitation injuries.		
	6. Mechanical asphyxiation.		
	7. Forensic road accidents.		
	8. Firearms injuries.		
	9. Physical agents.		
	10. Chemical agents.		
	11. The forensic examination of life persons. The forensic examination in obstetrics and gynecology.		
	12. Psychiatric expertise.		
	13.Malpractice in dental activity.		
	14. Expertise of DNA and other kind of forensic identification.		
Bibliography	15. Perju-Dumbravă Dan, Legal Medicine, Ed. Medicala Universitara ”Iuliu Hatieganu” 2017.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**30%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca								
Faculty	Dental Medicine								
Domain of study	Health								
Academic degree	Dental Medicine in English								
Level of course	I and II- License and masters								
Qualification	Doctor of Dental Medicine								
Department	4 Community medicine								
Discipline	Occupational medicine								
Cours title	**HEALTH PROMOTION**								
Responsible for lecture	**Assoc. Prof. Dr. Armand Rajnoveanu MD PhD**								
Responsible for practical activity	Lecturer dr. Răzvan Ionuţ Lecturer dr. Andreea-Iulia Socaciu Lecturer dr. Maria Bârsan Asist. univ. dr. Andreea-Petra Ungur								
The formative category of the discipline	DD								
Compulsory discipline	Compulsory								
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Semiology, internal medicine, imaging, hematology, pharmacology, biochemistry. • Performing and interpretation of medical anamnesis and objective examination on body systems.
Requisities for lectures and practical activities	• Amphitheater with projection system. • Laboratories with facilities specific to practical activities.

Professional competences	• The ability to use the specialized terminology appropriately and in the context. • Deepening the notions of primary, secondary and tertiary prophylaxis. • Preserving the health of employees by raising awareness of occupational risk factors and specific conditions able to generate occupational and work-related diseases. • Continuous improvement of the quality of life correlated with occupational health. • Implementation of health-promoting behavior among dental professionals. • Improving the ability to render theoretical knowledge in medicine. • Concrete ways of positive diagnosis of an occupational disease.
Transversal competences	• Ability to communicate effectively with the patient. • Interest for professional development by engaging critical thinking skills. • Involvement in research activities, such as the development of scientific articles. • Demonstration of the ability to use digital media in order to obtain medical information. • Use of assimilated notions in new contexts. • Application of theoretical notions in practical activity. • Establishing interdisciplinary correlations within the fields studied.
General objectives	• Assimilation of an informational core regarding the relationship between workplace and health status. • Gaining the basic knowledge necessary in recognizing the main occupational and work-related diseases and the main therapeutic and profilactic principles.
Specific objectives	• Acquiring knowledge related to occupational health concepts. • Definition of the concepts of occupational disease, work-related disease. • Specification of the declaration circuit and the pathogenetic mechanisms of the professional pathology. • The ability to perform professional anamnesis and clinical examination of the patient. • Identification of occupational exposure markers. • Occupational health promotion.

	• Monitoring and management of occupational diseases. • Practicing the ability of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Oral lectures duplicated by PowerPoint presentations, movies, pictures.**
Content	1. Occupational risk factors, generalities.
	2. Occupational disease. Work-related disease.
	3. Occupational asthma.
	4. Pneumoconioses.
	5. General occupational toxicology notions.
	6. Occupational toxicology: heavy metal poisoning.
	7. Occupational toxicology: organic solvents and asphyxiating gases intoxication.
	8. Occupational pathology caused by physical factors (noise).
	9. Occupational pathology caused by physical factors (vibrations).
	10.Occupational risks in the hospital environment.
	11. Occupational pathology caused by unfavorable microclimate conditions .
	12. Occupational dermatoses.
	13. Musculoskeletal overload: classification, high-risk jobs.
	14. Occupational pathology induced by musculoskeletal overload.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic exposure, conversation, problem solving, demonstration, investigation scheme and video-movie examples.
Practical activity carried out by students	1. Activity in the teaching classroom with the simulation of real-life situations encountered in the medical examinations of employment, adaptation, periodicals and balance provided by the legislation in force. 2. Presentation of clinical cases of occupational disease. Exercises to complete the specific documentation of occupational medicine reporting system. 3. Use of instruments for measuring various physical and chemical factors. Interpretation of analysis reports. 4. Participation in the different techniques of pulmonary function testing and exercises for the interpretation of those bulletins. 5. Performing and interpreting the results of cardio-vascular functional tests. 6. Familiarization with the radiological changes specific to pneumoconiosis by using chest X-rays from the collection of the Occupational Medicine Clinic. 7. Going through the diagnostic stages for a case of occupational disease in the pathology included in the topic. 8. Participation in the performance of an audiogram in the Audiology Cabinet of the Occupational Medicine Clinic. Interpretation of it.

	9. Watching a video about occupational cancers and discussing the situations presented in the film. 10. Review the main topics addressed and verify basic practical knowledge by completing a recapitulative questionnaire.
Content	1. General duties of the occupational health service under Convention 161 of the International Labour Organisation.
	2. Notions of occupational selection and orientation, adaptation, examination of new employees and periodical medical check-up.
	3. Diagnosis of occupational disease: criteria, reporting, research, declaration and recording of occupational diseases.
	4. Methodology of research of working conditions and assessment of occupational risks.
	5. Methodological criteria for sampling and interpretation of analysis reports for physical factors at a workplace.
	6. Methodological criteria for sampling and interpretation of analysis reports for physico-chemical and chemical factors at a workplace.
	7. Technique of monitoring respiratory function in staff at risk of chronic bronchopneumopathy.
	8. Standard ventilatory functional samples, investigation of small airways, FEV_1decline rate, bronchial challenge tests.
	9. Cardiovascular functional samples, their application in the field of occupational medicine: Teslenko, Crampton, and Brouha tests.
	10. Interpretation of a standard chest X-ray for the diagnosis of pneumoconiosis, according to the International Classification ILO 2000.
	11. Performing and interpreting an audiogram. Diagnosis, treatment and prophylaxis of a case of occupational hearing loss.
	12. Diagnosis of a case of silicosis, occupational asthma, occupational metal intoxication, occupational intoxication with organic solvents.
	13. Diagnosis of a case of occupational Raynaud's syndrome, occupational hearing loss, occupational or work-related osteo-musculoskeletal pathologies and dermatosis.
	14. Occupational cancer: hazards, jobs, technological processes.
Bibliography	1. Cazamian P. Traite d' Ergonomie. Ed. Octares Entreprises, Marseille, 1987. 2. Cocârlă A. (coordonator). Medicina Ocupaţională. Ed. Medicală Universitară "Iuliu Haţieganu", Cluj-Napoca, 2009. 3. Cocârlă A., Tefas L., Petran Marilena. Manual de Medicina Muncii. Ed. Medicală Universitară "Iuliu Haţieganu", Cluj-Napoca, 2000. 4. Dessoile H., Scherrer J., Truhaut R. Precis de Medecine du Travail. Ed. Masson, Paris, 1984. 5. La Dou Joseph. Occupational Medicine. Ed. Appleton & Lange, Norwalk, Connecticut, 1990. 6. Manu P. Niculescu T. Practica Medicinii Muncii, Ed. Medicală, Bucureşti. 1978. 7. Oarga Marilena. Medicina Muncii. Ed. Medicală Universitară "Iuliu Haţieganu", Cluj-Napoca, 2006.

	8. Rom William N. Environmental and Occupational Medicine. Ed. Little, Brown & Co, Boston, 1992. 9. Tefas L, Pop L. Bolile profesionale ale sistemului musculo-scheletal. Ed. Med. Univ. „Iuliu Haţieganu" Cluj-Napoca, 2004. 10. Zenz Carl. Occupational Medicine. Principles and Practical Applications., Ed. Year Book Medical Publishers, INC, Chicago, 1988. 11. Baxter PJ, Aw TJ, Cockroft A, Durrington P. Hunter's Diseases of Occupation, 10th edition, 2010. 12. Manu P., Niculescu T., Practica Medicinii Muncii, Ed. Medicală, Bucureşti. 1978. 13. HG 1169 din 12.12.2011 pentru modificarea şi completarea HG 355/2007 privind supravegherea sănătăţii lucrătorilor. 14. Toma I. Practica Medicinii Muncii, Sitech, Craiova, 2006.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**75%**	**25%**	**0%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and radiology
Discipline	MaxilloFacial Surgery and Implantology
Cours title	**MEDICO-SURGICAL EMERGENCIES IN DENTAL MEDICINE**
Responsible for lecture	Vacancy position Lecturer pos. 25
Responsible for practical activity	Assis. Prof. Opris Daiana Antoaneta Assis. Prof. Opris Horia Octavian Assis. Prof. Stoia Sebastian Assis. Prof. Tamas Tiberiu
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	2	2	4	28	56	41	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions	• General and special anatomy – head and neck. Physiology. Physiopathology. General and dento-maxillary apparatus

(Preliminary conditions)	semiology. Internal medicine. Pediatrics. Pharmacology. Dental medicine anesthesia. Oral surgery. • The ability to analyze anatomical and clinical parameters in a clinical case. • Critical analysis and laboratory test results interpretation. • Critical analysis of paraclinical explorations. • The correct filling of therapeutic prescriptions.
Requisities for lectures and practical activities	• Lectures will be held in a projection system – equipped amphitheater. • Laboratories with specific equipment for specific practical activities . • Offices equipped with dental units, patient wards, treatment rooms, operating rooms.

Professional competences	• Acquiring theoretical and practical specialty-specific patient examination notions. • Establishing an emergency diagnosis. • Knowledge of the first measures of treatment in medical and surgical emergencies. • Knowledge of the techniques and maneuvers necessary for the treatment of medical emergencies. • The ability to identify and apply emergency treatment for accidents and complications which may appear in the dental medicine practice. • Knowledge of the means of prevention for local accidents and complications of the general dentistry act. • Acquiring drug administering knowledge. • Acquiring theoretical and practical knowledge of patient monitoring means.
Transversal competences	• Using the acquired notions in new contexts. • Applying theoretical notions in practical activity. • Establishing interdisciplinary correlations within the studied fields • Developing efficient patient communication skills. • Demonstrating a willingness for professional improvement by training analytic and synthetic thought processes. • Proving involvement in research activities, such as elaborating scientific articles.
General objectives	• This Course offers Vth year students of Dental Medicine in the University of Dental Medicine theoretical knowledge about symptoms and making an emergency diagnosis of the complications which can arise in the dental office; the first measures of treatment in medical and surgical emergencies; knowledge of medicines, their effects and the risks of administering them, theoretical knowledge of anesthetic medicines; knowledge of technique's for administering medicine; listing general anesthesia techniques; patient monitoring; knowledge of risks and complications which can arise when administering

	intravenous sedatives. • The objective of practical seminars is acquiring airway disobstruction techniques knowledge; learning how to prepare medicine to be administered in emergencies and how to administer it; acquiring knowledge of the devices and materials used in the treatment of medical emergencies; learning how to perform disobstruction maneuvers, artificial ventilation, external cardiac massage on a mannequin and gaining knowledge of anesthetic drugs; medicine administering techniques; knowledge of general anesthesia techniques; patient monitoring; knowledge of sedation techniques and the risks and complications which can arise when administering intravenous sedatives.
Specific objectives	• Knowledge of symptoms and emergency diagnosis for complications which can arise in the dental office. The first measures of treatment in medical and surgical emergencies. Knowledge of the techniques and necessary maneuvers for the treatment of medical emergencies. Knowledge of drugs, their effects and the risks of administering them. Acquiring airway disobstruction techniques. Preparing the administering of drugs in emergency situations. Knowing the devices and materials used for the treatment of medical emergencies. Performing disobstruction, artificial ventilation and external cardiac massage maneuvers on mannequin. Listing the general anesthesia techniques. Knowledge of anesthetic drugs and the risks of their administration. Patient monitoring. Knowledge of the risks and complications which may appear when administering intravenous sedatives.

LECTURES	
Teaching methods	• **Lecture, Power-Point presentations, systematic interactive presentation.**
Content	1. The state of emergency. Organizing the immediate medical emergency. Medicines used in an emergency important for the dentist and classes, mechanism of action, dosage, indications and precautions / contraindications. General accidents in the dental office.
	2. Cardiorespiratory and cerebral resuscitation: stages of resuscitation, used medicine.
	3. Cardiorespiratory and cerebral resuscitation: resuscitation technique, resuscitation in special situations.
	4. Respiratory emergencies: notions of pathophysiology, acute respiratory failure, pulmonary embolism, asthma, acute angioedema, airway obstruction.
	5. Cardio-circulatory emergencies: notions of pathophysiology, angina pectoris, acute myocardial infarction, hypertensive crisis, hypotension, global cardiac insufficiency.
	6. Cardio-circulatory emergencies: reminder of the notions of

	electrocardiography, rhythm disorders.
	7. Comas: etiological and differential diagnosis. Comas: general coma treatment principles; emergency treatment of certain metabolic comas.
	8. Shocks. Etiopathogenesis, classification, clinical manifestations.
	9. Emergency treatment of anaphylactic shock. Principles of emergency treatment in other forms of shock.
	10. Emergency approach of polytrauma, cranio-maxillofacial trauma.
	11. Hemostasis disorders (classification, etiopathology, clinical picture, laboratory tests). Implications of hemostasis changes in dentistry.
	12. Monitoring patients during the interventional period in dentistry. Complications of anesthesia in dentistry.
	13. Incidents and complications of sedation techniques per os, iv and im in dentistry.
	14. Incidents and complications of inhalation sedation techniques and general anesthesia in dentistry.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-Point presentations, interactive teaching.
Practical activity carried out by students	• Scheduled interactive learning. Practical activities with the showcasing and practising of first aid techniques and maneuvers on teaching models.
Content	1. The emergency apparatus inside the dental office. The emergency kit: materials and drugs.
	2. Peripheral venous line placement. Drug administering notions. Intravenous kit. Applying an intravenous kit.
	3. The technique of intramuscular, subcutaneous, intradermal injections. Medicines used urgently important to the dentist (classes, mechanism of action, dosage, indications and precautions / contraindications).
	4. Non-instrumental airway disobstruction techniques. Knowing the disobstruction maneuvers.
	5. Devices for performing airway disobstruction. Knowledge of instrumental disobstruction maneuvers.
	6. Mechanical airway disobstruction: using the oropharyngeal airway, Robertazzi airway, laryngeal mask. Laryngoscopy. Tracheal intubation probes. Performing tracheal intubation.
	7. Special surgical maneuvers in severe emergencies cricothyrotomy, tracheostomy.
	8. Performing airway disobstruction and ventilation on mannequin. Acquiring knowledge of the cardiac massage techniques. Performing cardiac massage on mannequin.
	9. General emergencies in the dental office: lipothymy, syncope, convulsive accidents, allergic accidents.
	10. Urgent approach to polytraumas, craniocerebral and maxillofacial traumas.Emergency hemostasis. Emergency blood

	vessel ligatures in oro-maxillofacial hemorrhage. Emergency wound treatment. Antitetanic prophylaxis.
	11. Hemostasis disorders (classification, etiopathology, clinical picture, laboratory tests). Implications of hemostasis changes in dentistry.
	12. The differential diagnosis of shocks. Knowing the diagnostic and therapeutic approach in patients with hemorrhagic or anaphylactic shock. Knowing the diagnostic and therapeutic approach in patients with hypoglycemic shock.
	13. Differential diagnosis of metabolic comas. Differential diagnosis: clinical death, cerebral death.
	14. Monitoring patients during the interventional period in dentistry. Complications of anesthesia in dentistry. Incidents and complications of oral, iv and im sedation techniques in dentistry.
Bibliography	1. Ileana Mitre, Grigore Băciuţ, Mihaela Felicia Băciuţ, Radu Septimiu Câmpian, Lucia Hurubeanu, Horaţiu Alexandru Rotaru, Simion Bran, Liana Crişan, Bogdan Crişan, Iuliu George Moldovan, Cristiana Balog, Mădălina Anca Lazăr, Ioan Barbur, Cristian Mihail Dinu, Sergiu Vacaras. Urgente medico-chirurgicale în medicina dentară, Editura Medicală Universitară „Iuliu Haţieganu" Cluj-Napoca, 2014, 249 pag, ISBN 978-973-693-577-0. 2. Ileana Mitre, Grigore Băciuţ, Mihaela Felicia Băciuţ, Iuliu George Moldovan, Bogdan Crişan, Liana Crişan, Cristiana Balog, Mădălina Anca Lazăr, Ioan Barbur, Dispozitive și manopere utilizate pentru tratamentul urgenţelor, Editura Medicală Universitară „Iuliu Haţieganu" Cluj-Napoca, 2014, 87 pag, ISBN 978-973-693-578-7. 3. Grigore Băciuţ, URGENȚE MEDICO-CHIRURGICALE ÎN STOMATOLOGIE, Editura Medicală Universitară "Iuliu Haţieganu" Cluj-Napoca, 2002. 4. Călin Mitre, NOȚIUNI DE ANESTEZIE ȘI TERAPIE INTENSIVĂ, Editura Medicală Universitară "Iuliu Haţieganu" Cluj-Napoca, 2003. 5. Acalovschi I., MANUAL DE ANESTEZIE TERAPIE INTENSIVĂ, Litografia UMF "Iuliu Haţieganu" Cluj-Napoca, 1996. 6. Strickler SS, Choi DJ, Singer DJ, Oropello JM. Emergency physicians in critical care: where are we now?. J Am Coll Emerg Physicians Open. 2020;1(5):1062-1070. Published 2020 Jun 2. doi:10.1002/emp2.12105. 7. Keijzers G, Macdonald SP, Udy AA, et al. The Australasian Resuscitation In Sepsis Evaluation: Fluids or vasopressors in emergency department sepsis (ARISE FLUIDS), a multi-centre observational study describing current practice in Australia and New Zealand. Emerg Med Australas. 2020;32(4):586-598. doi:10.1111/1742-6723.13469. 8. Nolan JP, Monsieurs KG, Bossaert L, et al. European Resuscitation

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Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**40%**	**%**

Institution for graduate and postgraduate studies			University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca			
Faculty			Dental Medicine			
Domain of study			Health			
Academic degree			Dental Medicine in English			
Level of course			I and II- License and masters			
Qualification			Doctor of Dental Medicine			
Department			2 Conservative Odontology			
Discipline			Orthodontics			
Cours title			**ORTHODONTICS AND DENTO-FACIAL ORTHOPAEDICS**			
Responsible for lecture			**Assoc. Prof. Dr. Dana Feștilă**			
Responsible for practical activity			Assoc. Prof. Dr. Dana Feștilă Lecturer Dr. Mircea Ghergie Assist. Dr. Olimpia Bunta Asist. Drd. Tudor Suciu Vacant Conf.poz 3,Șef Lucrări poz.7			
The formative category of the discipline			DS			
Compulsory discipline			Compulsory			
Year	Sem	hours/week	hours/semester	Total	Credits	Type of

		C	LP/S	C	LP/S	SI			Assessment
5	2	2	3,5	28	49	48	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of pedodontics and dental radiology.
Requisities for lectures and practical activities	• Amphitheater with a projection system. • Laboratory with specific practical activities: Cabinet equipped with dental units.

Professional competences	• Capacity to present cases from theoretical knowledge. • Acquiring practical experience through the use of specialist instruments for executing the necessary stages in establishing an orthodontic diagnosis. • Acquiring necessary practical experience in utilising specialist instruments in the view of manipulating orthodontic appliances.
Transversal competences	• Use of notions from new context. • Application of theoretic notions in the practical activity. • Establishing a interdisciplinary correlation.
General objectives	• Knowledge of dento-maxillary anomalies and possibilities of treatment.
Specific objectives	• Appropriation of knowledge about growth and development of the dento-maxillary apparatus. • Clinic and complementary examinations. • Remembering the clinical table for dento-maxillary anomalies and etiological factors implicated in its production. • Establishing a diagnostic and therapeutic plan. • Knowledge of objectives of treatments. • Knowledge of mobile orthodontic devices (classification, components, mode of action). • Appropriation of practical knowledge for realizing the mobile orthodontic devices. • Prophylaxis and interception of the dento-maxillary anomalies. • Practicing capacity for synthesizing documents bibliographic.

LECTURES	
Teaching methods	• **Lecture, systematic interactive exposure.** • **Oral exposure, power-point presentation.**
Content	1. Growth and development of the dento-maxillary apparatus.
	2. Evolution relation/order of normal occlusion.
	3. Clinical examination in orthodontics.
	4.Complementary exams: Study model, examine photostatic, anthropologic.
	5. Radiologic examinations: methods of analysis of profile

	teleradiographs.
	6. Orthodontic terminology classification and diagnostic of dento-maxillary anomalies.
	7. Etiological and Pathogenesis of dento-maxillary anomalies.
	8. Dento-maxillary anomalies in the transversal plane.
	9. Dento-maxillary anomalies in the sagittal plane.
	10. Dento-maxillary anomalies in the vertical plane.
	11. Dental anomalies.
	12. Anomalies consisting of consecutive premature loss of temporary and permanent teeth.
	13. Prophylaxis for dento-maxillary anomalies.
	14. Indications for treatment in dento-maxillary anomalies. Principals of orthodontic treatments, types of mobile biomechanics devices.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive exercises on real and virtual supports (casts, pictures).
Practical activity carried out by students	• Examination and patient files. • Taking patients impressions. • Exercises of recognising the teeth and occlusal relations, measurement on the casts. • Interpretation exercises of orthodontic photographs. • Interpretation of radiological measurements. • Reproducing data found from the clinical exam and complimentary exam. • Exercises of drawing mobile orthodontic devices. • Exercises of applying mobile orthodontic devices. • Exercises of activating mobile orthodontic device. • Prophylactic orthodontic treatment. • Reproducing knowledge accumulated and testing them.
Content	1. Clinical and functional examination of children with dento-maxillary anomalies.
	2. Impression, orthodontic casts.
	3. Cast analysis, measurement.
	4. Examination of orthodontic photographs.
	5. Panoramic X-Ray analysis. Cephalometric analysis and interpretation.
	6. Establishing a diagnostic and a therapeutic plan.
	7. Completion of laboratory files with indications for the technician.
	8. Check-ups, activation of the removable and functional orthodontic appliances.
	9. Application of removable orthodontic devices and indications for patients.
	10. Orthodontic periodic controls: activation of removable orthodontic devices.
	11. Miogymnastic exercises.

	12. Clinical cases Application of small measures of orthodontic prophylaxis, interception and curative: exercises with a spatula, selective shaving of temporary teeth. Temporary teeth extraction in an orthodontic scope.
	13. Presentation of clinical cases.
	14. Presentation of clinical cases.
Bibliography	1. Lee W. Graber, Robert L. Vanarsdall, Jr., Katherine W. L. Vig , Greg J. Huang , Orthodontics: Current Principles and Techniques 6th Edition, Elsevier, 2016. 2. William R. Proffit, Henry W. Fields, Brent Larson, David M. Sarver. Contemporary Orthodontics, 6th Edition, Elsevier, 2018. 3. Martyn Cobourne Andrew DiBiase. Handbook of Orthodontics, Elsevier, 2015. 4. Thilander Birgit, Bondemark Lars Bjerklin. Essential Orthodontics, Willey and Sons, 2017. 5. Ionescu Ecaterina, Manual pentru rezidentiat, vol 2, Editura Universitara "Carol Davila", Bucuresti, 2021. 6. Pop Silvia Izabella, Pacurar Mariana, Bratu Cristina, Olteanu Cristian, Aparate ortodontice, University Press, 2018.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				3 Oral Rehabilitation					
Discipline				Periodontology					
Cours title				**PERIODONTOLOGY**					
Responsible for lecture				Vacant Position SL 23					
Responsible for practical activity				Lecturer Stefan Adrian Petrutiu Asist. Univ.Dr. Daniela Condor Asist. Univ.Dr.Cosmin Cioban Asist. Univ. Drd. Alina Stanomir Vacant Position AS 40					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			

5	2	2	3,5	28	49	48	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Histology, immunology, physio-pathology, microbiology, internal medicine, scientific research methodology. • Clinical studies analysis.
Requisities for lectures and practical activities	• Amphitheater with projection system/ Online virtual system • Preclinical laboratory with preclinical study models and audio/video system. • Dental units. • Application of the internal rules and regulations.

Professional competences	• Ability to use correctly the periodontal terminology**.** • Ability to perform a full periodontal examination. • Ability to make a correct diagnose and prognostic. • Ability to conceive a treatment plan and monitor its results. • Ability to perform supra and sub-gingival scaling manual or mechanical. • Knowledge of the periodontitis general risk factors, their etiological and prophylactic role in periodontitis, the importance of collaboration with the general physician. • Knowledge of periodontal surgery techniques and the capability to explain their necessity. • Ability to collaborate with the periodontist for managing complex interdisciplinary treatments. • Ability to analyze the results of periodontal therapy and to manage the supportive periodontal therapy. • Ability to synthesize in an interdisciplinary manner the clinical data in correlation with the complementary investigations (histological, immunological, biochemical, physio-pathological, microbiological) to assure a correct treatment plan. • Ability to use specific periodontal instruments according to standard international protocols.
Transversal competences	• Ability to communicate with the periodontal patient regarding the periodontal disease. • Ability to motivate and educate the periodontal patient regarding the self-performed plaque control. • Ability to communicate with other professionals for the management of the periodontal systemic factors and conditions. • Application of the theoretical knowledge in the practical activity • Ability to use the digital tools for patient awareness. • Developing the skills and motivation for continuous professional development.
General objectives	• At the end of the activity the student will be able to properly evaluate the periodontal status of the patient and to differentiate the healthy

	and affected periodontium. The student will be familiar the principles of the evidence-based treatment.
Specific objectives	• Provide the theoretical knowledge about periodontal entities semiology and risk factors. Provide theoretical knowledge regarding the base principles of periodontal treatments and also the therapeutically protocols for different forms of disease. • Provide examination protocols and specific periodontal treatment plans based on the theoretical knowledge. • Provide the necessary knowledge for clinical application of the above notions. • Developing the practical abilities for using the examination and specific treatment protocols by exercising on periodontal models and afterwards in the clinical office. • Developing the ability of synthetizing and communicating with other specialties in order to manage the periodontal affected cases in proper conditions. • Exercising the ability of scientific documentation.

LECTURES	
Teaching methods	• **Lectures, systematic and interactive presentations, Power point / oral presentations.**
Content	1. Initial therapy in periodontitis management. Subgingival scaling and root planing, efficiency and limitations.
	2. Ultrasonic subgingival scaling. Manual subgingival scaling.
	3. Possibilities of residual pockets reduction after initial therapy. Access flap therapy.
	4. Basic principles of periodontal wound healing. Periodontal regeneration.
	5. Instruments used in periodontal surgery. Postoperative care. Bone substitutes used in periodontal regeneration.
	6. Treatment options for infra-bony defects. Periodontal host modulation therapy.
	7. Systemic antibiotic therapy in periodontitis. Local antibiotic therapy in periodontitis.
	8. Place and role of antiseptic therapy in periodontal therapy. Chlorhexidine.
	9. Supportive periodontal treatment. Management of recurrences. Re-evaluation phase. Prognosis evaluation.
	10. Etiology of gingival recession.
	11. Preventive and curing treatment of gingival recessions.
	12. Prosthetic-perio inter-relationship. Treatment options. Provisionals in periodontal treatment.
	13. Temporary and permanent splinting of mobile teeth.
	14. Biologic width. Possibilities to maintain and restore.
PRACTICAL ACTIVITIES	

Teaching methods	• Power point presentation of working protocols, presentation of the instruments and materials used , presentation of the application technique / procedure realization.		
Practical activity carried out by students	• Realization and repetition of the maneuvers on preclinical models. • Assisting and/or realization of clinical procedure.		
Content	1. Manual sub-gingival scaling with Gracey curettes (pre-clinical encounter).		
	2. Manual and mechanical sharpening of Gracey curettes (pre-clinical encounter).		
	3. Subgingival scaling and root planing on anterior teeth (clinical encounter).		
	4. Subgingival scaling and root planing on posterior teeth (clinical encounter).		
	5. Management of local risk factors of periodontitis (preclinical encounter).		
	6. Management of local risk factors of periodontitis (clinical encounter).		
	7. Treatment of gingival recessions (pre-clinical encounter).		
	8. Clinical examination of gingival recessions, complex data recording in the observation chart (clinical encounter).		
	9. Identification of sites with biological width invasion (clinical encounter).		
	10. Assisting on a periodontal regenerative or pocket reduction therapy (clinical encounter).		
	11. Assisting on a crown lengthening therapy (clinical encounter)		
	12. Splinting mobile teeth using fixe prostheses or fiber reinforced composites (preclinical encounter).		
	13. Splinting mobile teeth using fiber reinforced composites (clinical encounter).		
	14. Antisepsis and disinfection of periodontal instruments, preparation of the surgical field in periodontology (clinical encounter).		
Bibliography	1. Soancă A, Roman A. Concepts in Periodontal Therapy. Ed Med Univ Iuliu Hatieganu, 2019 (ISBN 978-973-693-897-9). 2. Roman A et al. Parodontologie 1. Noțiuni de bază. Ed Med Univ Iuliu Hatieganu 2019 (ISBN 978-973-693-902-0). 3. Roman A., Soancă A. Clinical manual of periodontology, Ed Med Univ Iuliu Hatieganu 2011 (ISBN 978-973-693-471-1). 4. Newman MG, Takei H, Klokkevold PR, Carranza FA. Newman and Carranza's Clinical Periodontology, 13th Edition, Elsevier, 2018. 5. Lang NP, Berglundh T, Giannobile WV, Sanz M(Eds). Lindhe's Clinical Periodontology and Implant Dentistry, 7th Edition, Wiley-Blackwell, Munksgaard, 2021(ISBN: 978-1-119-43888-5).		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**

Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Prosthetic Dentistry
Cours title	**PROSTHETIC DENTISTRY**
Responsible for lecture	**Lecturer Dr. Cecilia Bacali**
Responsible for practical activity	Dr. Bacali Cecilia Dr. Ispas Ana Dr. Craciun Antarinia Dr. Manziuc Manuela Dr. Tisler Corina
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	2	2	4	28	56	41	125	5	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions from the subjects studied in the previous years: • Head and neck anatomy. • Dento-maxillary system morphology and functions. • Complete denture technology. • Occlusology.
Requisities for lectures and practical activities	• Amphitheatre with projection system. • Practices with dental units and appropriate equipment.

Professional competences	• Acquisition of specific terminology and ability to use it appropriately, in the proper context. • Ability to perform the clinical examination of the edentulous patient, using anatomical notions corresponding to: head and neck, cranial bones, mandibular mobilizing muscles and periprosthetic muscles anatomy. • Extensive knowledge regarding the morphology of the alveolar arches (shape, occlusal curves, occlusal contacts) and of the permanent teeth (cusps, fossae, marginal ridges, incisal edges, palatal surfaces), prerequisites for prosthetic rehabilitation of the complete edentulism.

	• Ability to understand and apply the concepts of centric relation and of maximum intercuspation, as well as the relationship between them in edentulous patients, respectively in the prosthetic rehabilitations. • Acquisition of notions related to the mandibular rest position, vertical dimension at rest and vertical dimension of occlusion, with practical applicability in the rehabilitation of the optimal jaw relation, an essential step in the treatment of complete edentulism. • Understanding of the medical reasoning in the treatment of complete edentulism, the logic behind the fabrication of complete dentures; acquisition of the theoretical knowledge and of the practical skills related to the specific prosthetic treatment. • Development of the ability to synthesize, in an interdisciplinary way, notions of anatomy, physiology, occlusology, in order to know and understand how to restore the morphology and the main functions of the dento-maxillary system using complete dentures. • Improvement of the capacity to transfer the acquired theoretical knowledge regarding the complete edentulism and its prosthetic treatment to clinical activity. • Acquisition of the practical experience needed for the use of specific instruments and materials (for each clinical step).
Transversal competences	• Ability to establish correlations between theoretical notions specific to the studied subject. • Integration of the acquired notions into an interdisciplinary context and the ability to use them in complex situations. • Application of the acquired theoretical knowledge in clinical activity.
General objectives	• Acquisition of the basic notions regarding the clinical study of complete edentulism and the basic principles of prosthetic treatment, in order to restore the morphology and functions of the dento-maxillary system.
Specific objectives	• Extensive clinical study of complete edentulism, highlighting the morpho-functional particularities of the edentulous state. • Knowledge regarding the etiological factors of complete edentulism and the extent to which they contribute to the exacerbation of the clinical symptoms in the edentulous patient, including the increase in difficulty of the prosthodontic treatment. • Understanding the evolution and dysfunctional manifestations associated to complete edentulism and the importance of dentures in preventing the occurrence of major complications that affect the general status of the patient. • Acquisition of theoretical and practical notions related to the prosthetic therapy of complete edentulism, which is a pathological condition of the dento-maxillary system. • Acquisition of clinical notions on the prosthetic treatment in complete edentulism by direct practice on the patient, by analysing the clinical steps performed during the practical work and also by thematic debates with the participation of the teaching staff and other students.

	• Development of the capacity to apply the acquired theoretical notions into the practical activity. • Development of the capacity to synthesize the acquired theoretical notions. • Acquisition of the methodology and skills for bibliographic documentation.

LECTURES	
Teaching methods	• **Power-Point presentations, interactive exposure.**
Content	1. The concept of complete edentulism: definition, generalities. Clinical study of complete edentulism: etiology, symptomatology, evolution, complications.
	2. Morphological and functional alterations of the edentulous patient dento-maxillary system regarding: the bone, the mucosa, the muscles and the temporomandibular joint.
	3. Morpho-physiology of the maxillary and mandibular denture bearing area: support area (bone substrate and mucosal substrate) and border sealing area.
	4.Periprosthetic muscles and their role in dento-maxillary system and complete dentures functions. Physical, morphological and functional factors involved in the retention and stability of the complete dentures.
	5. Functional zones of the maxillary denture bearing area.
	6. Functional zones of the mandibular denture bearing area.
	7. Clinical examination of the edentulous patient: anamnesis, objective examination, diagnosis, treatment options, goals. Clinical forms of the denture bearing area.
	8. Impression of the denture bearing area: definition, principles and general objectives. Impression materials used in the registration of the denture bearing area (types, composition, properties, manipulation).
	9. Preliminary impression: generalities, goals, steps. Final impression: generalities, goals, steps. Custom trays checking.
	10. Classification of final impression techniques, description, advantages, disadvantages. Specific techniques: Herbst, Schreinemakers, Devin.
	11. Jaw relation registration: theoretical considerations, the sequence of clinical steps, common methods and techniques. Considerations about articulators and master casts mounting in the articulator.
	12. Principles in artificial teeth selection and placement. General rules for teeth placement and occlusion.
	13. Trial dentures extraoral and intraoral control.
	14. Final dentures placement, control and adjustments in the oral cavity; esthetic, phonetic and occlusal relations control. Instructions and recommendations for complete denture care. Introduction in special prosthetic treatment techniques used in the rehabilitation of complete

	edentulism.
PRACTICAL ACTIVITIES	
Teaching methods	• Case presentations. Interactive presentations. Discussions.
Practical activity carried out by students	• Clinical procedures related to specific treatment steps. Case presentations.
Content	1. Preliminary examination of the edentulous patient, investigation of the case history and filling in the examination file. Patients referred to specialized services for undergoing paraclinical, complementary examinations and for obtaining the written consent from other specialists.
	2.Treatment plan and filling in the patient's prosthetic file. Case documentation (initial photos, study casts). Planning of the clinical steps.
	3. Pre-prosthetic treatments in conjunction with other specialized services.
	4. Preliminary impression of the denture bearing area. Impression disinfection and control.
	5. Analysis of the preliminary impression and delimitation of the functional limits of the denture bearing area. Instructions to the laboratory for the custom tray fabrication (partial/full distancing, undercuts correction). Impression transfer to the laboratory.
	6. Custom tray control and adjustments in order to obtain an adequate final impression. Improvements of the borders in the key areas, specific tests used to check the border seal.
	7. Final impression using the adequate technique (according to the clinical situation), simple/combined impressions, compressive/non compressive impressions.
	8. Analysis of the master casts, drawing of the areas to be decompressed, engraving of the upper cast distal area.
	9. Extraoral and intraoral control of the occlusal rims.
	10. Jaw relation registration. Determination of the vertical dimension at rest and the vertical dimension of occlusion. Practice of mandible guiding techniques in centric relation.
	11. Trial dentures - extraoral and intraoral control.
	12. Final dentures placement into the oral cavity. Instructions and recommendations for complete denture care.
	13. Subsequent sessions for dentures controls, adjustments, optimisations and repairs.
	14. Practical demonstrations of special techniques: immediate dentures and overdentures.
Bibliography	**1. Zarb G, Hobkirk JA, Eckert SE, Jacob RF**. Prosthodontic Treatment for Edentulous Patients.Complete Dentures and Implant-Supported Prostheses. 13th edition, Mosby 2013. **2. Constantiniuc M, Bacali C**. Clinic and prosthetic therapy of the full

	edentulous patient. Ed. Med. Univ. Iuliu Hatieganu. Cluj-Napoca 2018.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Odontology, Endodontics and Oral Pathology
Cours title	**RESTORATIVE ODONTOTHERAPY**
Responsible for lecture	**Vacancy lecturer 18**
Responsible for practical activity	**Vacant Lecturer 18** Assist. Dr. Pop Dan Assist. Dr Marius Bud
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	2	1	3	14	42	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Diagnosis of dental caries, techniques of restorative treatments and knowledge of stages of endodontic treatment.
Requisities for lectures and practical activities	• Amphitheater with projection system. • Dental cabinets provided with units specific to the practical activities on the patient.

Professional competences	• The ability to use the theoretical knowledge and practical skills of restorative dentistry adequately and in context. • Knowing the tools for examining and preparing the various types of cavities for direct and indirect restorations. • Knowing and choosing the best treatment plan by direct methods according to the given clinical situation. • Biological orientation, selection of dental restoration materials, through appropriate techniques for each individual patient.

	• Developing the capacity of synthesis of the notion of aesthetic and functional restoration, in order to understand and restore the main functions of the dento-maxillary apparatus: mastication, swallowing, phonation, esthetic function. • Improving the ability to replicate the theoretical knowledge of cavity preparation and obturation. • Clinical, paraclinical diagnosis and appropriate treatment of outbreak disease. • Achieving the practical experience necessary for the complex restorations.
Transversal competences	• Use of assimilated notions in particular contexts, specific to each case • Applying theoretical notions in practical work. • Complex treatment of the patient, establishment of interdisciplinary correlations.
General objectives	• Improving the knowledge about the positive, differential diagnosis of simple and complicated odontal lesions and about the possibilities of odontal and endodontic treatment for complex case solving.
Specific objectives	• Medical reasoning in conservative odontal therapy. • Comprehensive examination of the patient, establishing a complete and correct diagnosis and treatment plan. • Assimilation of differential diagnosis notions and the conditions in which it is realized. • Biological orientation, selection of odontonal restoration materials, by appropriate individualized techniques for each patient. • Clinical, paraclinical diagnosis and appropriate treatment of outbreak disease. • Accidents, complaints, iatrogenes of odontal treatments. • Performing aesthetic treatments. • Developing the ability to replicate the theoretical knowledge by preparing the cavities and filling adapted to each clinical situation • Exercise of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive exposure.**
Content	1. Medical priciples in conservative odontal therapy.
	2. Principles of minimally invasive dentistry.
	3. Armamentarium for composite direct restoration. Dental matrix systems.
	4. Conservative preparation of cavities for composite direct restoration. The role of ultrasounds in minimally invasive preparation.
	5. Biological vision in odontal therapy. Choosing the right techniques, instruments and restorative materials.
	6. Aesthetic direct restorations of frontal teeth using modern composites. Vanini Technique, restoration with Hri composite.

	7. Restoration of enodontically treated teeth.
	8. The limits of conservative restorative dentistry. Direct versus indirect restoration.
	9. Modern equipments and techniques used in odontal restorative therapy. Semi-direct method of making the composite inlay.
	10. Additive dentistry: indications, advantages, disadvantages, working technique.
	11. The use of Dental Operating Microscope in restorative dentistry.
	12. Accidents and complications of odontal therapy.
	13. External and internal whitening, indications, contraindications, materials, work technique.
	14. Replacement versus repairing of odontal restorations. Patient monitorisation.
PRACTICAL ACTIVITIES	
Teaching methods	•Interactive discussions and demonstrations.
Practical activity carried out by students	•Dental examination and recording the information in file of the patient.
Content	1. Dental examination and treatment plan, making the patient's record, recording all data on cabinet patients book.
	2. Odonto-periodontal prophylaxis (scalling, professional dental cleanning).
	3. Morphofunctional restoration of dental structures.
	4. Intraoperative injuries of endodontic treatment.
	5. Endodontic retreatment.
	6. Limits of conservative endodontic treatment.
	7. Restoration of endodontically treated teeth.
	8. Aesthetic anterior restorations.
	9. Posterior restorations in class I and II cavities- particular situations.
	10. The use of new modern technologies for diagnosis and treatments.
	11. Direct composite restoration of posterior teeth using "Stamp technique".
	12. Knowledge of the rational use of medication and materials in conservative dental medicine.
	13. Diagnosis of odonto-periodontal infection and interpretation of paraclinical examinations.
	14. Evaluating patients at risk in dental treatment.
Bibliography	1.Jacques Lasfargues et Pierre Colon: Odontologie conservatrice et restauratrice -une approche medicale globale ;Ed.CdP 2010 Wolters Kluwer, France (2010). 2.Adrian Lussi;Markus Schaffner : Advances in RestorativeDentistry; Ed. Quintessence 2012. 3.Minimal intervention dentistry:part 4. Detection and diagnosis of initial caries lesions ; A. Guerrieri, C. Gaucher,E. Bonte and J. J.

	Lasfargues British Dental Journal volume 213 no. 11 dec 8 2012. 4.Summitt J.; Robbins W.; Schwartz R. : Fundamentals of operative Dentistry ; Ed. Quintessence 2016. 5.Mount G.; Hume W.R.: Preservation and restoration of the tooth structure; Ed. Mosby 2016. 6.Ecaterina Ionescu (coordinator): Manual pentru rezidențiat – stomatologie, Volumul I, Ed.Universitară "Carol Davila", 2021.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**70%**	**20%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca								
Faculty	Dental Medicine								
Domain of study	Health								
Academic degree	Dental Medicine in English								
Level of course	I and II- License and masters								
Qualification	Doctor of Dental Medicine								
Department	6 Medical specialties								
Discipline	Dermatology								
Cours title	**DERMATOVENEROLOGY**								
Responsible for lecture	**Associate Profesor Dr. Ana Sorina Dănescu**								
Responsible for practical activity	Prof. Dr. Adrian Baican Assoc. Prof. Dr. Dănescu Ana Sorina Assoc. Prof. Dr. Simona Șenilă Assoc. Prof. Dr. Loredana Ungureanu Lect. Dr. Daniela Vornicescu Assist prof. Dr. Elisabeta Candrea Assist. Prof. Dr. Alina Vasilovici Assist prof. Cristian Papară								
The formative category of the discipline	DD								
Compulsory discipline	Compulsory								
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	Histology, Histopathology, Physiology, Physiopathology, Semiology. Doing the anamnesis and physical exam.
Requisities for lectures and practical activities	NA

Professional competences	• To recognize the skin lesion and establish the clinical diagnosis in dermatological diseases. • To recommend and interpret the investigations needed for the final diagnosis in dermatological diseases. • To recommend the correct treatment in dermatological disease and follow-up the therapy regarding efficiency and side effects.
Transversal competences	• To have the ability to communicate with the patient. • To show preoccupation for professional improvement. • To integrate dermatological knowledge into general medical one and into research activities.
General objectives	• To acquire knowledge about cutaneous pathology. • To integrate the theoretical and practical knowledge gained in the previous study years in the discipline profile.
Specific objectives	• To recognize the elementary skin lesions. • To diagnose and treat the main dermatological diseases.

LECTURES	
Teaching methods	• **Power point presentations.**
Content	1. Introduction in dermatology.
	2. Viral infections.
	3. Bacterial infections.
	4. Fungal infections.
	5. Parasitic infections.
	6. Urticaria.
	7. Dermatitis.
	8. Acnee. Rosacea. Perioral dermatitis.
	9. Psoriasis. Lichen planus.
	10. Autoimmune bullous diseases.
	11. Benign cutaneous tumors.
	12. Malignant cutaneous tumors.
	13. Sexually transmitted diseases.
	14. Diseases of the oral mucosa.
PRACTICAL ACTIVITIES	
Teaching methods	• Case presentation (patients with various dermatological conditions). • Carrying out diagnostic and therapeutical procedures in the dermatology field.
Practical activity carried out by students	• Anamnesis. • Physical exam. • Skin examination. • Performing diagnostic and therapeutic maneuvers specific to the discipline.
Content	1. Recognition of the main skin lesions and discussion of probable diagnostic hypotheses.
	2. Performing specific manipulations and explorations: cryotherapy,

	phototherapy, dermatoscopy, patch-test, prick-test, skin biopsy, incisions, drainage, intralesional therapy.
	3. Knowledge of the use of the main topical and systemic treatments used in dermatology.
	4. Skin infections.
	5. Urticaria.
	6. Eczema.
	7. Acne, rosacea, perioral dermatitis.
	8. Psoriasis, Lichen planus.
	9. Autoimune bullous dermatoses.
	10. Sexually transmitted diseases.
	11. Benign and malignant cutaneous tumors.
	12. Diseases of the oral mucosa.
	13. Dermatoses of the folds, face and scalp.
	14. Participation in formulating the diagnosis and therapeutic approach.
Bibliography	1. Richard B. Weller, Hamish J. A. Hunter, Margaret W. Mann. Clinical Dermatology. Fifth Edition, ISBN-13: 978-0470659526. 2. Braun Falco, Dermatology, 3rd edition.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**60%**	**30%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	II- Conservative odontology
Discipline	Orthodontics
Cours title	**MEDICAL PRACTICE**
Responsible for lecture	**Lecturer Dr. Ghergie Mircea**
Responsible for practical activity	Lecturer Dr. Ghergie Mircea
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	2	0	40	0	120	40	160	2	C

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy and physiology of dento-maxillary system.
Requisities for lectures and practical activities	• Amphitheater with projection system. • Attendance is mandatory in a proportion of 100%. • Adequate dress code – lab coat. • Filling in the summer medical practice notebook, in accordance with the curriculum.

Professional competences	• Medical practice activities in general medicine units. • Medical practice activities in dental medicine units.
Transversal competences	• Ability to work in a team during therapeutic procedures.
General objectives	• Acquiring the knowledge of the working of general medicine units and dental medicine units.
Specific objectives	• Knowledge of the working of general medicine units and dental medicine units, the patients' and dental instruments' circuits. • Learning and exercising the examination of patients, elaboration of the patient chart. • Learning notions regarding preparation of the instruments for disinfection and sterilization and regarding instrument sterilization. • Knowledge of the specific instruments used in the medical unit where the student goes for summer medical practice.

PRACTICAL ACTIVITIES	
Teaching methods	• Lecture, systematic interactive exposure. • Practical demonstration; interactive dialogue.
Practical activity carried out by students	• Oral exposure power-point presentation.
Content	1. Dental office management – applications for the medical unit where the practical activity is being performed.
	2.Positive diagnosis and differential diagnosis in periodontology – prophylactic procedures and conservative treatment.
	3.Prosthetic rehabilitation with implant support – case study.
	4.Holistic approach of a patient in dentistry.
	5.Correlations between oral pathology and general pathology – a minimum of 3 clinical cases .
	6.Complex oral rehabilitation – objectives and treatment steps (a minimum of 3 clinical cases).
	7.Medical emergencies in dentistry.
Bibliography	1. Lee W. Graber, Robert L. Vanarsdall, Jr., Katherine W. L. Vig , Greg J. Huang , Orthodontics: Current Principles and Techniques 6th Edition, Elsevier, 2016.

	2. William R. Proffit, Henry W. Fields, Brent Larson, David M. Sarver. Contemporary Orthodontics, 6th Edition, Elsevier, 2018. 3. Martyn Cobourne Andrew DiBiase. Handbook of Orthodontics, Elsevier, 2015. 4. Thilander Birgit, Bondemark Lars Bjerklin. Essential Orthodontics, Willey and Sons, 2017. 5. Ionescu Ecaterina, Manual pentru rezidentiat, vol 2, Editura Universitara "Carol Davila", Bucuresti, 2021. 6. Pop Silvia Izabella, Pacurar Mariana, Bratu Cristina, Olteanu Cristian, Aparate ortodontice, University Press, 2018.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**%**	**100%**	**%**

6TH YEAR

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	MaxilloFacial Surgery and Implantology
Cours title	**ORAL AND MAXILLO-FACIAL SURGERY**
Responsible for lecture	Vacancy position Prof. pos. 7
Responsible for practical activity	Vacancy position Prof. pos. 7 Lecturer. Dr. Armencea Gabriel Vacancy position Assist. Prof. pos. 46
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	3	28	42	30	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• General and head and neck anatomy. Physiology. Pathophysiology.General and Dental-maxillary apparatus semiology. Genetics. Internal Medicine. Pediatrics. Oral and Maxillo-facial Surgery. Orthodontics and dentofacial orthopedics. Occlusology.

	• The ability to analyze the anatomo-clinical parameters while studying a clinical case. • Critical analysis and interpreting of laboratory results and other • paraclinical explorations. • The ability to set the correct clinical diagnosis of orofacial deformities.
Requisities for lectures and practical activities	• Amphitheater with projection systems. • Laboratories that offer proper conditions for the practical courses to unfold. • Offices with dental chairs, treatment rooms, operating rooms.

Professional competences	• Appropriation of theoretical and practical notions regarding the patient's examination specific for this field. • Acquiring theoretical and practical knowledge of Plastic and Reconstructive Oro-Maxillo-Facial Surgery: craniocerebral and craniofacial trauma, dentofacial deformities, congenital and acquired craniofacial malformations, complex craniofacial malformative syndromes, defect reconstruction in the cranio-maxillofacial region, temporomandibular joint pathology.
Transversal competences	• The use of the acquired knowledge in new contexts. • The implementation of theoretical notions in practical situations. • Establishing inter-disciplinary correlations between the studied subjects. • The ability to communicate with the pacient in an efficient way. • To show preoccupation for professional development by training the abilities of analytical and synthetical thinking. • To prove involvement in research activities by elaborating scientific articles.
General objectives	• The course offers Sixth year students of the Dental Medicine Faculty theoretical notions concerning oral and maxillo-facial surgery : craniocerebral and craniofacial traumatology, dentofacial anomalies, congenital and acquired craniofacial malformations, complex craniofacial malformation syndromes, the reconstruction of tissued defects in the cranio-maxillofacial area. • The practical courses aim to facilitate the assimilation of practical notions regarding the oral and maxillo-facial surgery: craniocerebral and craniofacial traumatology, dentofacial anomalies, congenital and acquired craniofacial malformations, complex craniofacial malformation syndromes, the reconstruction of tissue defects in the cranio-maxillofacial area.
Specific objectives	• Assimilating the theoretical and practical notions regarding plastic and reconstructive cranio-maxillofacial surgery: craniocerebral and craniofacial traumatology, dentofacial anomalies, congenital and acquired craniofacial malformations, complex craniofacial malformation syndromes, the reconstruction of tissue defects in the cranio-maxillofacial area, the pathology of the temporomandibular

	joint.

LECTURES	
Teaching methods	• **Oral presentations, Power-Point presentations.**
Content	1. Cranio-cerebral Traumas: Etiology, Classification, Pathophysiology, Pathological Anatomy, Clinical Examination, Open craniocerebral trauma – classification, Craniocerebral wounds, Emergency treatment of wounds.
	2. Intracranial lesions. Classification of craniocerebral trauma by Glasgow scale. Epicranial hematoma. Epidural hematoma. Subdural hematoma. Intraparenchimatous hematoma. Intracerebral concussions Mild, medium and severe cranio-cerebral traumas.
	3.Fractures of the frontal sinus. Naso-orbital-ethmoid fractures. Cerebro-spinal fluid fistulas: Etiology, Classification, Clinical and imaging examination, Principles of treatment.
	4. Cranio-maxillo-facial anomalies: Etiology, Classification of anomalies, criteria for clinical diagnosis and imaging, Treatment of alveolar-dental abnormalities. General principles of surgical treatment.
	5. Anatomic mandibular prognathism: Etiology, clinical picture, differential diagnosis, presurgical treatment, surgical treatment – surgical interventions at the level of the mandibular condyle, ascending mandibular ramus, angle and mandibular body.
	6. Anatomical mandibular retrognathism: Etiology, clinical picture, differential diagnosis, pre-surgical treatment, surgical treatment – surgical interventions at the level of the mandibular condyle, mandibular ramus and body and at the level of the subapical alveolar process. Bimaxillary osteotomies.
	7. Open bite. Anatomical mandibular laterognathism: Etiology, clinical picture, differential diagnosis, pre-surgical treatment, surgical treatment.
	8. The anomalies of the maxillary frontal group: superior proalveolia, superior retroalveolia, supraalveolia, superior lateralsupraalveolia. Maxillary retrognathism: Le Fort I, II, III surgical treatment. The maxillary endognathism.
	9. The maxillary prognathism. The contour anomalies of the chin: progenia, retrogenia. Micrognathism with a decreased lower facial height and eugnathic bite.
	10. Excess contour anomalies of the body of the mandible. Anomalies regarding the number: supernumerary teeth. Positional dental anomalies: tipping and translation.
	11. Cranio-maxillofacial malformations. Complex craniofacial malformative syndromes. Congenital malformations of the face and jaws. First and second branchial arch syndromes.
	12. Congenital facial clefts. Etiology and classification. Anatomo-clinical types. Clinical aspects of congenital facial clefts. Plastic surgical treatment of the congenital facial clefts.

	13. Reconstruction of head and neck defects. The surgical treatment of the facial nerve paralysis.
	14. The pathology of the temporomandibular joint.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentations. Interactive teaching.
Practical activity carried out by students	• Interactive teaching. Practical courses with the participation of the students in the surgical treatment of oral and maxillo-facial pathologies. Case study, case presentations.
Content	1. The evaluation of the patient with craniocerebral injuries.
	2. The review of the lesions in a patient with craniocerebral injuries.
	3. Case presentations in patients with frontal sinus fractures and in patients with naso-orbito-ethmoidal fractures.
	4. Case reports in patients with cranio-maxillofacial anomalies. Presentation of the general principles of treatment.
	5. Case presentation – sagittal dento-facial anomalies.
	6. Discussing the treatment steps for patients with dentofacial anomalies (diagnosis, orthodontic treatment, preoperative planning, surgical treatment)
	7. Case presentation - transversal dento-facial anomalies.
	8. Case presentation – vertical dento-facial anomalies.
	9. Case presentation – the treatment of dento-facial anomalies using osteodistraction.
	10. Case presentation – labio-maxillo-palatine clefts.
	11. Discussing the complex treatment methods (surgical, orthodontic, phoniatric).
	12. Case presentation – labio-maxillo-palatine clefts. Suture removal after plastic surgery of the lip.
	13. Case presentations – temporomandibular joint pathology.
	14. Case presentations – microsurgical reconstruction for bone and soft tissue defects of the head and neck region.
Bibliography	- Alexandru Rotaru, Grigore Băciuţ, Horaţiu Rotaru, CHIRURGIE MAXILO-FACIALĂ, Vol. I si Vol. II, Editura Medicală Universitară "Iuliu Haţieganu" Cluj- Napoca, 2003. - Richard G. Ellenbogen, Laligam N. Sekhar, Ioan Stefan Florian, Principiile Chirurgiei Neurologice Ed.4, Editura Hipocrate, 2018. - Joachim Prein, Michael Ehrenfeld, Paul N Manson, Principles of Internal Fixation of the Craniomaxillofacial Skeleton – Trauma and Orthognathic Surgery, Thieme, 2012. - Michael Ehrenfeld, Neal Futran, Paul N Manson and Joachim Prein, Advanced Craniomaxillofacial Surgery. Tumor, Corrective Bone Surgery and Trauma, Thieme, 2020. - Sarver DM: Esthetic orthodontics and orthognatic surgery. St. Louis, 1998, Mosby. - May M., Schaitkin B.M.: Facial Paralysis. Rehabilitation Techniques, Thieme, New York, 2003.

	- Al. Bucur, Gr. Băciuţ, M. Surpăţeanu, sub redacţia, Managementul afecţiunilor chirurgicale oro-maxilo-faciale, 2012, Editura Didactică şi Pedagogică, Bucureşti, ISBN 978-973-30-3136-9. - Reyneke J.P. Essentials of Orthognathic Surgery. Quintessence Publishing, 2003. - Baker S.R.: Local flaps in Facial reconstruction- 4th edition, Elsevier 2021. - Fonseca Raymond J. Oral and maxillofacial surgery. Third edition, Elsevier; 2018. - Hupp J.R., Ellis E., Tucker M.R. Contemporary Oral and Maxillofacial Surgery.. 7th ed. Elsevier; Philadelphia, 2019.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**50%**	**-**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	1 MaxilloFacial Surgery and Radiology
Discipline	MaxilloFacial Surgery and Implantology
Cours title	**DENTAL IMPLANTOLOGY**
Responsible for lecture	**Prof. Dr. Mihaela Băciut**
Responsible for practical activity	Lecturer Dr. Crişan Bogdan Assist. Prof. Opriş Horia Vacancy position Assist. Prof. pos. 41
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	3	28	42	30	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Dental-maxillary apparatus anatomy. Dental-maxillary apparatus physiology. Pathophysiology. Dental anesthesia. Oral and maxillo-facial surgery. Oral Pathology. Periodontology. • The ability to analyze the anatomo-clinical parameters while studying a clinical case. • The ability to set the correct clinical diagnosis in the oro-maxillo-facial field.

	• Critical analysis and interpreting of laboratory results and other • paraclinical explorations. • Practical abilities in performing local and loco-regional nerve blocks in the maxillo-facial region. • Practical abilities of assisting in oral surgery interventions.
Requisities for lectures and practical activities	• Location for course unfolding – amphitheater with projection systems. • Laboratories that offer proper conditions for the practical courses to unfold. • Offices with dental chairs, treatment rooms, operating rooms.

Professional competences	• Appropriation of theoretical and practical notions regarding the patient's examination specific for this field. • Basic knowledge on dental implants. • Acquiring knowledge of diagnosis in oral and maxillo-facial implantology.
Transversal competences	• The use of the acquired knowledge in new contexts. • The implementation of theoretical notions in practical situations. • Establishing inter-disciplinary correlations between the studied subjects. • Gaining the ability to communicate efficiently with the patients. • To demonstrate concern for constant professional improvement by training the analytical and synthetical thinking. Taking part in research.
General objectives	• The course offers Sixth year students of the Dental Medicine Faculty theoretical notions concerning oral implants. It provides knowledge of oral and maxillo-facial implantology diagnosis, dental implant components, surgical protocols, bone augmentation for oral implantology, dental implant maintenance. • The practical courses' objective is to teach practical aspects concerning the implant's parts, diagnosis in oral and maxillo-facial implantology, surgical protocols, bone augmentation and reconstruction, dental implant maintenance.
Specific objectives	• Studying basic notions concerning oral implants. • Acquiring knowledge of diagnosis in oral and maxillo-facial implantology. • Studying the implant's parts. • Implant insertion stages. • Bone augmentation and reconstruction. • Dental implant maintenance.

LECTURES	
Teaching methods	• **Lecture, Systematic and interactive explanations. Oral presentations, Power-Point presentations.**
Content	1. Introduction. History. Rationale for implants. Nomenclature.
	2. Prosthetic options. Anatomic bases. Bone physiology and metabolism.

	3. Medical evaluation. Diagnosis evaluation of the oral implantology patient.
	4. Radiological diagnosis. Bone types. Classification.
	5. Occlusal evaluation in oral implantology.
	6. Prosthetic evaluation in oral implantology. Totally and partially edentulous arch classification.
	7. "Overdenture" therapeutic options. Posterior maxillary region treatment options.
	8. Biomaterials. Clinical biomechanics.
	9. Peri-implant tissues.
	10. Augmentation and restoration of the edentulous ridge.
	11. Root form implants. Progressive bone loading.
	12. Bone density – influence on the treatment plan. Autogenous bone grafts.
	13. Screw-retained and cement-retained implant supported prosthetic restorations. Occlusal aspects.
	14. Implant and implant supported dentures maintenance.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching.
Practical activity carried out by students	• Interactive teaching. Practical courses that consist of presenting oral implantology patients, dental cast study, x-ray study, patient consultation, assisting in surgical interventions.
Content	1. Dental cast and x-ray study of the bone support in oral implantology.
	2. Knowing how to use implantology kits.
	3. Dental model study of different types of edentation.
	4. Implant choice depending on the type of edentation (Misch and Judy classification).
	5. Using the implant kit for applying endosseous implants in the visceral skull (mandible).
	6. Using the implant kit for applying endosseous implants in the visceral skull (maxilla).
	7. Sinus lift options – skull study.
	8. Lateralization technique and inferior alveolar nerve transposition – skull study.
	9. Learning impression techniques for implant supported prosthetic restorations.
	10. Inter-maxillary relation determination based on functional occlusion principles.
	11. Acquiring the use of the face-bow in oral implantology.
	12. Dental implant loading.
	13. Caring for patients with oral implants.
	14. Indications and counter indications in oral implantology.
Bibliography	1. Data bases: Pubmed, Medline, Embase, Science Direct, WoS Clarivate Analytics, Clinical Key (Elsevier).

	2. Sonick M, Hwang D. Implant Site Development, John Wiley & Sons Inc. 2012. 3. Miloro M, Kolokythas A. Management of Complications in Oral and Maxillofacial Surgery, DOI:10.1002/9781118704493, John Wiley & Sons Inc. 2012. 4. Felisati G, Chiapasco M. Sinonasal Complications of Dental Disease and Treatment: Prevention–Diagnosis–Management. ed. 1st Edition. Stuttgart: Thieme; doi:10.1055/b-006-149711, 2015. 5. Froum SJ. Dental Implant Complications: Etiology, Prevention, and Treatment, 2, John Wiley & Sons Inc. 2016. 6. Resnik RR, Misch CE. Avoiding Complications in Oral Implantology, Elsevier, Mosby, St. Louis, USA, 2017. 7. Resnik, Randolph R. Misch's Contemporary Implant Dentistry, editia a 4-a, Editura Elsevier, 2020. 8. Galante JM, Rubio NA. Digital Dental Implantology. From Treatment Planning to Guided Surgery, Springer, 2021.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**33,3%**	**33,3%**	**33,4%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Prosthetic Dentistry
Cours title	**PROSTHETIC DENTISTRY**
Responsible for lecture	**Lecturer Dr. Ispas Ana** **Lecturer Dr. Oana Almășan**
Responsible for practical activity	Lecturer Dr. Ispas Ana Assist. Dr. Crăciun Antarinia Assist. Dr. Manziuc Manuela
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	3	1	42	14	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the teeth morphology and dental arches. • Knowledge of technology to achieve the removable partial prosthodontics. Occlusion.
Requisities for lectures and practical activities	• Amphitheater with protection system. • Dental offices with dental units.

Professional competences	• Capacity to demonstrate the selection and combination skills in theoretical and practical knowledge of designing partial removable dentures. Capacity to demonstrate cognitive skills and abilities on developing a treatment plan for removable partial denture and for temporomandibular disorders.
Transversal competences	• Capacity to demonstrate skills and abilities of working in a team, developing professional and ethical values; good communication skills, abilities in problem solving and decision making.
General objectives	• A comprehensive understanding of the complex issues involved in the scientific basis of removable prosthodontics required to establish a good treatment plan for the edentulous patient and for patients with temporomandibular disorders.
Specific objectives	• Acquiring theoretical and practical knowledge related to the partial edentulous therapy. • Knowledge of the components of the removable partial denture (RPD) and acrylic RPDs. • Acquiring biomechanical knowledge of the removable partial denture and acrylic RPDs. • Establishing a diagnosis and treatment plan for the removable partial denture. • Performing the required clinical and laboratory procedures for ensuring an RPD. • Surveying the diagnostic cast and performing the design of the removable partial denture on the diagnostic cast. • Understanding the difference between a provisional acrylic removable partial denture and a removable partial denture. • Practicing the synthesis and documentation capacity. • Performing clinical and paraclincal examinations for the TMD patients. Understanding the treatment plan for the TMD patient.

LECTURES	
Teaching methods	• **Systematic and interactive presentation, oral presentation, power point presentation, problem solving;**
Content	1. Objectives and indications of prosthodontic treatment in removable partial denture. Preliminary examination of the partially edentulous patient. TMD definition, history, terminology, epidemiology.
	2. Final clinical examination of the partially edentulous patient. Diagnosis and treatment plan. TMD aetiology.

	3. Treatment plan. Objectives. Phases: pre-prosthetic and prosthetic treatment plan. TMD symptomatology connected to the denal-maxillary apparatus.
	4. The acrylic removable partial denture. Components: saddles and artificial teeth, palate plate, wrought wire clasp, acrylic clasp). TMD symptomatology referred from the denal-maxillary apparatus.
	5. The removable partial denture (RPD). Components of RPD: saddles and artificial teeth. Examination of the patient with TMD.
	6. Components of the removable partial denture (RPD): mandibular and maxillary major connectors. Positive diagnosis in TMD.
	7. Components of the removable partial denture (RPD): direct retainer. Types and functions of direct retainers which are indicated for clinical situations. Differential diagnosis in TMD.
	8. Cast clasp (circular clasps, Roach clasps, Ney clasps and particular clasps). Subtractive occlusal equilibration treatment.
	9. Precision and semi-precision attachments. Classification of the attachments. Minor connector. Additive - prosthodontic and orthodontic occlusal equilibration treatment.
	10. Biomechanics of the removal partial denture. Possible movements of the removable partial denture. General medication and physical therapy.
	11. Surveying the diagnostic cast. Principles of designing the metal framework. Treatment plan for Kennedy class I edentulous arches. Interocclusal devices - neuromuscular splints.
	12. Design of RPDs in Kennedy class II edentulous arches and Kennedy class III edentulous arches and Kennedy class IV edentulous arches. Making the design of the RPD on the diagnostic cast. Interocclusal devices - repositioning splints.
	13. Clinical and laboratory steps for making an RPD: preliminary oral examination, final oral examination. Specific pre-prosthetic procedures: impression (unique functional impression and compressive functional impression), try-in of the framework and recording the relationships of occlusion. Methodology for complex prosthodontics rehabilitation. Multidisciplinary treatments of patients with TMD.
	14. Try-in of the wax pattern. Transforming the wax pattern in the final denture. Try-in and adjustments of the denture. Monitoring the patients. Relining and rebasing. Case reports of patients with TMD.
PRACTICAL ACTIVITIES	
Teaching methods	• Systematic presentation, discussions of the clinical cases, demonstrations of the prosthetics procedures, establishing the treatment plans. Knowledge seminars.
Practical activity carried out by students	• Clinical examinations of TMJ and examination of occlusion; establishment of complete and complex diagnosis based on all clinical and paraclinical investigations, differential diagnosis;

	occlusal balancing by addition on the model, assessment of joint spaces and the position of the joint disc, establishment of prosthetic treatment plans; practical determination of RC using previous jig and leaf-gauge; practical application and clinical adaptation of a deprogramming guide; occlusal balancing of a patient with temporomandibular dysfunction.
Content	1. Examination of the TMD patient's masticatory, cervicofacial, and facial muscles.
	2. Examining TMJ and mandibular borderline movements using the Farrar diagram.
	3. Instrumental analysis: semi-adaptable articulator model assessment, digital occlusal evaluation.
	4. Imagistic examination: radiographic examination, cone beam computed tomography (CBCT), magnetic resonance imaging (MRI).
	5. Final positive diagnosis and differential diagnosis.
	6. Performing occlusal balancing procedures by subtraction on the cast.
	7. Performing occlusal balancing procedures by addition on the cast.
	8. The technological realization of a full coverage relaxation splint.
	9. The technological realization of an anterior deprogramming splint.
	10. Use of anterior jig and leaf-gauge to determine centric relation.
	11. Applying and adapting a deprogramming splint.
	12. Applying and adapting a full coverage relaxation splint.
	13. Occlusal balancing of a patient with TMD.
	14. Case report.
Bibliography	1. Allan B. Carr David T. Brown. McCracken's removable partial prosthodontics, 2016. 2. Olcay Sakar. Removable partial dentures. Springer Cham, Switerland, 2016. 3. Chang Ting-Ling, Daniela Orellana, and John Beumer. Kratochvil's Fundamentals of Removable Partial Dentures. Quintessence Publishing, 2019. 4. James Field, and |Claire Storei. Removable Prosthodontics at a glance. 1st Edition PDF, Wiley-Blackwell, 2020. 5. LASCU LIANA MARIA, „Les bases théoriques de l'étude du traitement de l'édentement partiel par des prothèses partielles amovibles au châssis métallique" - „L'étude de l'édentement partiel - examen clinique du patient. Les éléments structuraux de la prothèse partielle au châssis métallique", vol.I, Edit. Medic. Univ. "Iuliu Haţieganu" Cluj- Napoca, 2019. 6. LASCU LIANA MARIA, „Les bases théoriques de l'étude du traitement de l'édentement partiel par des prothèses partielles amovibles au châssis métallique"- „La biodynamique de la prothèse partielle amovible au châssis métallique. Les étapes cliniques dans la réalisation des prothèses partielles au châssis métallique", vol.II, vol.I, Edit. Medic. Univ. "Iuliu Haţieganu" Cluj- Napoca, 2019. 7. BUDURU SMARANDA. Analiza ocluzală. Clinic versus

	articulator. Ed. NapocaStar, Cluj-Napoca, 2018. 8. KLINEBERG IVEN. Functional Occlusion in Restorative Dentistry and Prosthodontics. Elsevier Mosby, 2016. 9. OKESON JEFFREY P. Management of Temporomandibular disorders and Occlusion, Elsevier Mosby, 2013.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Orthodontics
Cours title	**ORTHODONTICS AND DENTO-FACIAL ORTHODONTICS**
Responsible for lecture	**Assoc. Prof. Dr. Dana Feștilă**
Responsible for practical activity	Assoc. Prof. Dr. Dana Feștilă Lecturer Dr. Mircea Ghergie Assist. Dr. Olimpia Bunta Asist. Drd. Suciu Tudor
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	1	28	14	58	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of orthodontics and dental radiology.
Requisities for lectures and practical activities	• Amphitheater with a projection system. • Laboratory with specific practical activities: Cabinet equipped with dental units.

Professional competences	• Capacity to properly use speciality terms. • Knowing the morphology of various groups of teeth. • Knowing the morphology of the dental arches. • Acquireing notions of norlam oclusion.

	• Acquireing general information about the reference positions of the maxilla and mandible : centric relation, posture, habitual bite. • Acquiring practical experience through the use of specialist instruments for executing the necessary stages in establishing an orthodontic diagnosis. • Acquiring necessary practical experience in utilising specialist instruments in the view of manipulating orthodontic appliances.
Transversal competences	• Use of notions from new context. • Application of theoretic notions in the practical activity. • Establishing a interdisciplinary correlation.
General objectives	• Knowledge of dento-maxillary anomalies and possibilities of treatment.
Specific objectives	• Appropriation of knowledge about growth and development of the dento-maxillary apparatus. • Clinic and complementary examinations. • Remembering the clinical table for dento-maxillary anomalies and etiological factors implicated in its production. • Establishing a diagnostic and therapeutic plan. • Knowledge of objectives of treatments. • Knowledge of mobile orthodontic devices (classification, components, mode of action). • Appropriation of practical knowledge for realizing the mobile orthodontic devices. • Prophylaxis and interception of the dento-maxillary anomalies. • Practicing capacity for synthesizing documents bibliographic.

LECTURES	
Teaching methods	• **Lecture, systematic interactive exposure.** • **Oral exposure, power-point presentation.**
Content	1. Functional ethiological factors of the orthodontic anomalies.
	2. Definition and classification of functional appliances. Principles of action. Miofunctional appliances.
	3. Inclined planes : definition, classification, action. Types of inclined planes. Indications.
	4. Inhibition functional appliances : indications, action.
	5. Activator and monoblock : description, indications, action.
	6. Balters Bionator: description, indications, action. Frankel appliances: description, indications, action.
	7. Twin Block : description, indications, action. Clear aligner/ Invisalign.
	8. Fixed appliances: history, advantages, disadvantages, components.
	9. Treatment phases of the fixed technique; objectives and means of obtaining them.
	10. Anchorage: means of obtaining orthodontic anchorage.
	11. Extra oral forces : classification, components, action, indications.

	12. Relapse and retention – causes of relapse, theories of retention; retention appliances.
	13. Adult orthodontic treatment : pre prosthetic, pre surgical treatments.
	14. Surgical methods associated to the orthodontic treatment.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive exercises on real supports. • Recognizing teeth and occlusion. Measurements. • Facial examination on virtual support. • Interactive exercises on real and virtual supports (casts, pictures).
Practical activity carried out by students	• Examination and patient files. • Examination and measurement on casts. • Examination of pictures. • Examination of radiographs. • Conclusions of examination. • Drawing exercises. • Application and use of the orthodontic appliances exercises. • Activation of the removable and functional orthodontic appliances. Exercises. • Demonstrations. • Orthodontic extractions. • Prophylaxis. • Synthesis of acquired information and testing.
Content	1. Diagnosis: clinical examination and patient history.
	2. Diagnosis: cast study.
	3. Diagnosis: photostatic study.
	4. Diagnosis: radiological examination.
	5. Treatment planning.
	6. Establishing the design of the orthodontic appliance.
	7. Application and use of the orthodontic appliances.
	8. Check-ups, activation of the removable and functional orthodontic appliances.
	9. Muscle gymnastics.
	10. Orthodontic extractions.
	11. Clinical cases.
	12. Clinical cases.
	13. Clinical cases.
	14. Clinical cases.
Bibliography	1. Lee W. Graber, Robert L. Vanarsdall, Jr., Katherine W. L. Vig , Greg J. Huang. 2. Orthodontics: Current Principles and Techniques 6th Edition, Elsevier, 2016. 3. William R. Proffit, Henry W. Fields, Brent Larson, David M. Sarver. Contemporary Orthodontics, 6th Edition, Elsevier, 2018 4. Martyn Cobourne Andrew DiBiase. Handbook of Orthodontics, Elsevier, 2015. 5. Thilander Birgit, Bondemark Lars Bjerklin. Essential Orthodontics,

	Willey and Sons, 2017. 6. Ionescu Ecaterina, Manual pentru rezidentiat, vol 2, Editura Universitara "Carol Davila", Bucuresti, 2021. 7. Pop Silvia Izabella, Pacurar Mariana, Bratu Cristina, Olteanu Cristian, Aparate ortodontice, University Press, 2018.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**40%**	**10%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Rehabilitation
Cours title	**ORAL REHABILITATION**
Responsible for lecture	**Lecturer Dr. Anida Maria Băbțan**
Responsible for practical activity	Assist. Dr. Andreea Pop Assist. Dr. Claudia Feurdean Assist. 45 - vacancy
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	1	28	14	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of Odontology, Endodontics, Prosthetics, Periodontology, Maxillofacial Surgery, Implantology, Orthodontics, Internal Medicine, Pharmacology, Pathophysiology • Knowledge in assessing one patients' health status, dental clinical oral cavity examination, diagnosis.
Requisities for lectures and practical activities	• Amphitheater with projection system/ Online system. • Dental offices with specific facilities for practical activities/ Online system.

Professional competences	• Acquisition of knowledge related to complex oral rehabilitation of patients. The holistic approach of the patient in the dental medicine office.

	• The ability to decide on the opportunity of a dental operation in the context of the presence of a general condition. • The ability to evaluate the particularities of the dental treatment performed in patients with general conditions. • The ability to evaluate the bidirectional interrelationship between general disorders and oral cavity pathology. • How the therapeutic decision is influenced in the dental medicine cabinet by the metabolic and functional imbalances. • The way in which the therapeutic decision is influenced in the dental medicine cabinet by the complex chronic treatments of the patients. • Prevention of transmission of infectious diseases in the dental office.
Transversal competences	• Integration of the concepts assimilated in Ododntology, Endodontics, Prosthetics, Periodontology, Maxillofacial Surgery, Implantology, Orthodontics, Internal Medicine, Pharmacology, Pathophysiology in the context of complex oral rehabilitation. • The application of theoretical notions in practical activity. • Establishing interdisciplinary correlations in the studied fields.
General objectives	• Acquiring knowledge about complex oral rehabilitation of pacifications. • The peculiarities of dental treatment in patients with general condition.
Specific objectives	• The complex and interdisciplinary approach of the adult patient with special care needs in the context of curative and palliative treatments • Specific training of the patient with comorbidities for the healing of the oral cavity. • Establishing the opportunity of the dental treatments in the patient with general conditions. • The specific training of the patient with associated conditions, the optimum moment of intervention and the post-intervention follow-up. • Complex rehabilitation of the functions of the dento-maxillary apparatus affected on stabilized dento-periodontal structures.

LECTURES	
Teaching methods	• **Lecture, systematic interactive presentation.** • **Oral presentation.** • **Power-point presentation.**
Content	1. Holistic approach to the patient in the dental office. Examination form, case presentation, prescription / medical prescription, medical documents required in dental practice. Staging treatment and the patient follow-up. Examples through case presentations and medical prescriptions in the dental office.
	2.Oral rehabilitation of the patient with algo-dysfunctional syndrome of the temporo-mandibular joint (TMJ). Specific treatment in oral cavity opening limitation. Rehabilitation of oral cavity limitation diseased patients.
	3. The role of prostheses and surgical devices in complex oral rehabilitation in patients with tumor or cystic oro-maxillo-facial

	pathology.
	4. Dental treatment particularities in patients with haematological diseases: anemia syndromes, coagulation disorders, blood tumoral disorders.
	5. Dental treatments in pregnancy, postpartum and breastfeeding.
	6. Dental treatments in acute and subacute SARS-COV-2 infected patients. Oral rehabilitation in patients with post-COVID-19 syndrome (‘Long COVID-19’).
	7. Dental treatments in patients with chronical lung disease: bronchial asthma and COPD.
	8. Dental treatment particularities in patients with sleep apnea. Mandibular advancement devices.
	9. Dental treatment particularities in patients with psychiatric disorders: schizophrenia, psychosis, neurosis, depression and mental retard.
	10. Oral rehabilitation in toxic dependent patients: alcohol, narcotics, hallucinogenic. Toxic substances dependence.
	11. Dental treatments in patients with endocrine disorders.
	12. Dental treatment particularities in patients with immune disorders: congenital and secondary (HIV) autoimmune disorders.
	13. Dental treatment particularities in patients with immune disorders: post-transplant status, dialysis, immunosuppressive medication (long-term chemotherapeutical and corticosteroids).
	14. Theory implement using complex oral rehabilitation case reports.
PRACTICAL ACTIVITIES	
Teaching methods	• Interactive teaching power-point presentations. Practical demonstration. The conception and writing of the medical prescription in the dental office for the patient with oral pathology in the context of general ailments.
Practical activity carried out by students	• Performing exooral, endooral and general, clinical examination. Interactive discussions, power-point presentations. Practical demonstration. Performing the learned techniques.
Content	1. Examination of patients with general and dental conditions. Anamnesis and objective local and general examination. The medical prescription in the dental office for the patient with oral pathology in the context of general comorbidities.
	2. Preparation of the observation sheet. Establishing the diagnosis of oro-dental diseases and the diagnosis of general disease.
	3. Carrying out the treatment plan in the context of general comorbities.
	4. Performing dental treatment in patients with algal dysfunction syndrome and limitations of mouth opening. Stages for performing surgical prostheses.
	5. Carrying out dental treatments, scaling, extractions and incisions in suppurations in patients with haematological disorders.
	6. Carrying out dental treatments, scaling, extractions and incisions in suppurations in pregnancy, postpartum and breastfeeding.
	7. Carrying out dental treatments, scaling, extractions and incisions in

	suppurations in patients with respiratory diseases- COPD, asthma.
	8. Carrying out dental treatments, scaling, extractions and incisions in patients with sleep apnea.
	9.Performing dental treatments, scaling, extractions and incisions of suppurations in patients with psychiatric disorders - schizophrenia, psychosis, neurosis, depression, mental retardation.
	10.Carrying out dental treatments, scaling, extractions and incisions of suppurations in patients consuming toxins: alcohol, analgesics, sedatives, hallucinogenic substances.
	11. Performing dental treatments, scaling, extractions and incisions of suppurations in patients with endocrine disorders.
	12. Performing dental treatments, scaling, extractions and incisions of suppurations in patients with diseases of the immune system - autoimmune diseases and HIV.
	13. Performing dental treatments, scaling, extractions and incisions of suppurations in patients with diseases of the immune system - post-transplant conditions, dialysis, immunosuppressive medication-chemotherapy, long-term corticotherapy.
	14. Practical examination-case presentation.
Bibliography	1. Reabilitare Orală –G.Băciuț, M.Baciut, R.S.Campian, C.Balog, D. Pop – Ed medicala Universitara Iuliu Hatieganu, Cluj Napoca, 2002, ISBN 973-8019-90-7. 2. Proteze și aparate chirurgicale oromaxilofaciale –R.S. Câmpian-Ed. Medicală Universitară Iuliu Hatieganu, Cluj Napoca, 2007, ISBN 978-973-693-256-4. 3. Implicațiile multidisciplinare în durerea orală și cranio-facială- A. Rotaru, C. Sarbu, R.S. Campian, I. Munteanu, H. Rotaru – ED. Clusium, Cluj Napoca, 2001, ISBN 973-555-299-X. 4. Medical problems in dentistry - C. Scully, R. Cawson, Elsevier, 2016. 5. Afecțiunile buco-dentare și sarcina – P.Vartej, M. Gafar, H. Panaite, Ed. All Educational S.A.,1998,ISBN 973-9337-40-6. 6. 6. Tratat de epidemiologie a bolilor transmisibile- Ivan Aurel, Editura Polirom București 2002 , pag 259-309. 7. SEER Coding and Staging Manual (2010). The 2010 manual is to be used for cases diagnosed January 1, 2010 and forward. 8. https://www.cancer.gov/types/head-and-neck/patient/paranasal-sinus-treatment-pdq. 9. https://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating.html. 10. http://www.msdmanuals.com/home/ear,-nose,-and-throat-disorders/nose-and-sinus-disorders/rhinitis. 11. van der Molen T. Co-morbidities of COPD in primary care: frequency, relation to COPD, and treatment consequences. Prim Care Resp J, 2010,19(4): 326-334. 12. Prasad et al / Chronic Obstructive Pulmonary Disease (COPD).

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21. Supriya Sharma, Jyoti Bajpai, Pankaj K. Pathak, Akshyaya Pradhan, Priyanka Singh, and Surya Kant. Oral tuberculosis - Current concepts. J Family Med Prim Care. 2019 Apr; 8(4): 1308–1312. doi: 10.4103/jfmpc.jfmpc_97_19.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**30 %**	**60 %**	**10 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Odontology, Endodontics and Oral Pathology
Cours title	**ORAL PATHOLOGY**
Responsible for lecture	**Assoc. Prof. Dr. Radu Chisnoiu**
Responsible for practical activity	Asist. Dr. Mara Rusnac Asist. Drd. Mihai Merfea

				Asist. Drd. Antonia Boca					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	1	28	14	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• The anatomy of head and neck notions.
Requisities for lectures and practical activities	• Amphiteater with projection system • Students will not be present at practical activities with their mobile phones on. Also, phone conversations will not be tolerated during class or, students leaving the course to take over personal calls. It is prohibited consumption of food and drinks during courses / practical activities. It will not be tolerated the delay to course. It is prohibited consumption of food and drinks during courses / practical activities. It will not be tolerated the delay to practical activities or the course, because it proves to be disruptive towards the learning process. • Laboratories with specific practical activities. • Each student must complete their portfolios and the skills • notebook with all the specifics. • (Alternatively - offices with dental units for clinical disciplines, • salons, intervention halls for surgical disciplines).

Professional competences	• The ability to use the theoretical and practical notions of oral pathology adequately and in context. • Knowing the tools for examining patients with different types of disorders in the field of oral pathology. • Knowing and choosing the examination methods, complementary • Examinations and treatment, individualized, according to the given clinical situation; examinations and treatment, individualized, according to the given clinical situation. • Biological orientation, selection of treatment protocols for each individual patient. • Developing the capacity of synthesis of the information obtained, developing the ability to establish a complete and complex diagnosis. • Improving the ability to replicate the theoretical knowledge about diagnosis, differential diagnosis and treatment of disorders in the

	field of oral pathology. • Achieving the practical experience necessary for the complex cases, with associated systemic disorders treatment of outbreak disease.
Transversal competences	• Use of assimilated notions in particular contexts, specific to each case; • Applying theoretical notions in practical work; • Complex treatment of the patient, establishment of interdisciplinary correlations.
General objectives	• The knowledge of normal morphology and histological structure of the oral mucosa, the defense mechanisms of the oral cavity, the basic lesions of the oral mucosa, the normal physiological variations and oral manifestations of systemic diseases.
Specific objectives	• To acquire the knowledge of normal oral mucosa aspect and the variations of the normal. • To acquire the knowledge of risk factors in malignancy. • Learning and detecting the predisposing factors with malignant potential, premalignant lesions and the main forms of onset of oral cancer. • To perform the oncological preventive examination in the dental office. • Learning the steps of developing the positive clinical, etiological and differential the evolving nature of the main diseases of the oral cavity lining. • To develop the capacity to conduct the treatment of the oral mucous membrane disorders. • Practicing synthesis capacity and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic exposition, interactive; oral expositions, presentations, Power-Point.**
Content	1. The object of Oral Pathology. The clinical and etiological classification. The elementary lesions. The variations of the normal and anomalies of unknown etiology of the oral mucosa.
	2. The patient examination and the oral pathology diagnosis.
	3. Aphthae. Isolated aphthae (basic lesion). Minor aphthae. Major aphthae. Herpetiform aphthae. Behcet's disease. Particular forms (Crohn's disease, haemorrhagic rectocolitis, haematological deficiencies).
	4. Elements of diagnosis and differential diagnosis of oral ulcerations
	5. Blistering disorders of the oral cavity. Herpes. Chickenpox. Shingles. Foot, hand and mouth disease. Herpangina.
	6. Bullous conditions. The mechanism of bulla formation. Erythema multiforme. Stevens-Johnson syndrome. Lyell's syndrome. Pemphigus vulgaris. Bullous pemphigoid. Cicatricial pemphigoid.
	7. White lesions. Normal and pathological keratinizaton. The classification of the white lesions. Leukoplakia. White lesions of irritative cause. White lesions associated with dermatological disorders:

	oral lichen planus, lupus erythematosus, dermatomyositis. White lesions of infectious etiology: chronic thrush, hairy leukoplakia, tertiary syphilis. Congenital and hereditary white lesions: white sponge naevus, Darier's disease. Other white lesions.
	8. Pigmented lesions. Lentigo. Malignant melanoma. Pigmented naevi. Tattoos. Addison's disease. Peutz-Jeghers syndrome. Racial pigmentation. Vascular lesions. Kaposi's sarcoma. Diffuse mucosal pigmentation.
	9. Premalignant lesions. Erythroplasia (erythroplakia). Speckled leukoplakia. Idiopathic leukoplakia. Sublingual keratosis. Proliferative verrucous leukoplakia. Smokeless tobacco-induced keratosis. Chronic hyperplastic candidosis. Oral submucous fibrosis. Chronic actinic cheilitis. Syphilitic leukoplakia.
	10. Oral manifestations in some systemic and infectious diseases (anaemias, leukaemias, lymphomas, haemorrhagic diseases, sarcoidosis, Crohn's disease, lupus erythematosus, tuberculosis, syphilis).
	11. Complications of topic and systemic drug treatment. Oral reactions to drugs. Local reaction to drugs (chemical burns). Systemically mediated reactions (lichenoid reactions, acute erythema multiforme, toxic epidermal necrolysis), other drug effects (gingival hyperplasia, oral pigmentation, dry mouth, oral ulcers).
	12. Candidosis. Systemic mycoses. Xerostomia.
	13. Tongue disorders. The sore tongue (ulcers involving the tongue, glossitis, the sore, physically normal tongue, geographical tongue), lingual varicosities, hairy tongue, median rhomboid glossitis.
	14. Oral manifestations in HIV infection. Oral lesions in HIV/SIDA. The doctor's role in monitoring patients. The prevention of HIV infection in dental offices.
PRACTICAL ACTIVITIES	
Teaching methods	• Presentations, Power Point, interactive teaching.
Practical activity carried out by students	• Patient examination, diagnosis, treatment and slides presentation.
Content	1. The elementary lesions. The variations of the normal and anomalies of unknown ethiology of the oral mucosa.
	2. The patient examination and the oral pathology diagnosis steps.
	3. Aphthae. Clinical aspects. The patient investigation in regards to aphthae.
	4. Elements of diagnosis and differential diagnosis of oral ulcerations.
	5. Blistering disorders of the oral cavity. Clinical aspects. Elements of diagnosis and differential diagnosis.
	6. Summary of the: - elementary lesions, - diagnostic steps in oral pathology, - ulcerative, vesicular and bullous lesions of the oral cavity.

	Exercises for the recognition and description of the lesions.		
	7. White lesions. Normal and pathological keratinization. Leukoplakia. Oral lichen planus. Lupus erythematosus. Clinical aspects. Diagnosis and differential diagnosis. Patient monitoring.		
	8. Pigmented lesions. Clinical aspects. Elements of diagnosis and differential diagnosis.		
	9. Premalignant lesions – diagnosis and differential diagnosis. Erythroplasia (erythroplakia). Speckled leukoplakia. Idiopathic leukoplakia. Sublingual keratosis. Proliferative verrucouss leukoplakia. Smokeless tobacco-induced keratosis. Chronic hyperplastic candidosis. Oral submucous fibrosis. Chronic actinic cheilitis. Syphilitic leukoplakia.		
	10. Oral manifestations in some systemic and infectious diseases. Clinical aspects. The dentist's role in patient monitoring and their treatment.		
	11. Complications of topic and systemic drug treatment. Clinical aspects. Diagnosis. Differential diagnosis.		
	12. Candidosis. Systemic mycoses. Xerostomia. Clinical aspects. Diagnosis. Differential diagnosis.		
	13. Tongue disorders. Glossodynia. Clinical aspects.		
	14. Oral manifestatons in HIV infection. Oral lesions in HIV/SIDA. The doctor's role in monitoring patients. The prevention of HIV infection in dental offices.		
Bibliography	1. Doina Iulia Rotaru, Radu Marcel Chisnoiu, Andrea Maria Chisnoiu – An essential guide to oral pathology, Editura Medicală Universitară Iuliu Haţieganu Cluj Napoca, 2021. 2. Doina Iulia Rotaru – Practical course of oral pathology, Editura Medicală Universitară Iuliu Haţieganu Cluj Napoca, 2018. 3. Doina Iulia Rotaru – Practical Guide of Oral Patholy. Editura Medicală Universitară Iuliu. 4. Haţieganu Cluj Napoca, 2017. 5. Doina Iulia Rotaru – Practical Guide of Oral Patholy. Editura Medicală Universitară Iuliu Haţieganu Cluj Napoca, 2017. 6. Doina Iulia Rotaru – De la teorie la practica in patologia orala, Editura Medicală Universitară Iuliu Haţieganu Cluj Napoca , 2016. 7. Doina Iulia Rotaru, Ada Gabriela Delean – Ghid de diagnostic si tratament al afectiunilor din sfera patologiei orale, Editura Medicală Universitară Iuliu Haţieganu Cluj Napoca, 2015. 8. Rotaru Doina Iulia, Mureşanu Liviu, Delean Ada - "Patologia mucoasei orale", Editura Medicală Universitară Iuliu Haţieganu Cluj Napoca, 2011.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**25%**	**25%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Health
Cours title	**COMMUNITY AND ORAL HEALTH**
Responsible for lecture	Prof. Dr. Ondine Lucaciu
Responsible for practical activity	As. Dr. Nausica Petrescu As. Dr. Adina Sirbu As. V. 46
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	1	28	14	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of dental medicine, public health, epidemiology.
Requisities for lectures and practical activities	• Virtual amphitheater with projection system. • Laboratories with specific equipment for practical activities.

Professional competences	• Capacity to adequately and in context use the specialty terminology. • Deepening the notions of primary and secondary prophylaxis. • Preserving oral health – hospitalization. • Continuous improvement of life quality correlated with oral health – regarding the population's health and comfort state. • Implementation of a healthy behavior among the population. • Perfection of the capacity to render prophylactic and theoretical knowledge in medicine.
Transversal competences	• Use of assimilated notions in new contexts. • Application of theoretical concepts to practical activity. • Establishment of interdisciplinary correlations in the studied fields.
General objectives	• Knowing the oral health problems worldwide and the role of the dentist in regarding the assessment of the oral health, of its determinants and the possibilities to influence the oral health status.
Specific objectives	• Learning the knowledge regarding the health concepts. • Developing concepts of oral-dental public health.

	• Promotion of oral health. • Monitoring and public assistance of dental disseases. • Prevention and control of dental diseases and promotion of dental health through the effort of the community. • Health condition of the population depending on the determinants of the health condition: social-economical, biological, environmental, life style, insurance of health services, quality and accesibility of health services. • Exercising the capacity of synthesis and documentation item.

LECTURES	
Teaching methods	• **Lecture, Systematic and interactive presentation.**
Content	1. Principles of dental public health.
	2. History of dental public health.
	3. Inequalities in Dental Public Health.
	4. Efforts of DPH worldwide.
	5. The concept of risk factor.
	6. Determinants of population's health.
	7. Primary health care.
	8. Aspects of oral health on groups of diseases: decays, periodontitis, malignant tumors, malformations and dento-maxillary abnormalities, traumas, infections .
	9. Aspects of oral health on groups of diseases: decays, periodontitis, malignant tumors, malformations and dento-maxillary abnormalities, traumas, infections.
	10. Aspects of oral health on groups of diseases: malformations and dento-maxillary abnormalities.
	11. Principles and methods of oral epidemiology.
	12. Principles and methods of oral epidemiology.
	13 . Ethics in public health.
	14 . Ethics in public health.
PRACTICAL ACTIVITIES	
Teaching methods	• PowerPoint presentations, interactive teaching.
Practical activity carried out by students	• Essay presentation on the topic.
Content	1. Oral health assessment form.
	2. Design of an oral health survey
	3. Pathfinder surveys.
	4. Pathfinder surveys.
	5. Organizing the survey. Preparing a survey protocol.
	6. Organizing the survey. Obtaining approval from the authorities.
	7. Organizing the survey. Budgeting.

	8. Organizing the survey. Scheduling.		
	9. Reliability and validity of data.		
	10. Training and calibrating examiners.		
	11. Implementing the survey. General preparation.		
	12. Implementing the survey. General preparation.		
	13. Preparation of survey reports.		
	14. Preparation of survey reports.		
Bibliography	1. Farah C.S., Balasubramaniam R., McCullough M.J. Contemporary Oral Medicine. 2019. Springer International Publishing AG. 2. WHO. International Standards for Clinical Trial Registries. 2018.World Health Organization.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**80%**	**%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Pedodontics
Cours title	**PEDODONTICS**
Responsible for lecture	**Șef Lucr.Dr. Meda-Romana Simu**
Responsible for practical activity	Șef Lucr.Dr. Meda-Romana Simu Asist.Univ. Dr. Raluca Diana Ghiran Asist. Univ. Dr. Irina Lupșe
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	2	1	28	14	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy and physiology of dento-maxillary system.
Requisities for lectures and practical activities	• Amphitheater with projection system. • Cabinets with dental units.

Professional competences	• Particularities of clinical and complementary examination in pediatric dental medicine. • Behavioral particularities of the child and adolescent patient. • Oral mucosal pathology in children. • Dento-periodontal traumatic injuries during childhood and adolescence. • Pedodontic treatment in children with general medical problems. • Parodontopathies - peculiarities of diagnosis and treatment during childhood and adolescence. • Medical emergencies in the pediatric dental office.
Transversal competences	• Using similar concepts in new contexts. • Application of theoretical concepts in practical activity. • Establish interdisciplinary correlations in the studied areas.
General objectives	• Psychology and approach to the child in the dental office. • Particularities of diagnosis and treatment of dental lesions in children and youth. • Particularities of mucosal diseases, periodontal diseases, during childhood and adolescence. • Dento-periodontal trauma in children and young people. • Management of patients with general pathology. • Prevention of dento-periodontal diseases and dento-maxillary anomalies during childhood and adolescence.
Specific objectives	• Particularities of clinical and complementary examination in children and young people. • Techniques of communication and approach of the child and adolescent patient. • Mucosal disorders in children. • Dento-periodontal traumatic lesions in children and adolescents. • Periodontal diseases in children and young people. • Elaboration and phasing of the complex treatment plan. • Exercise of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• **Lecture, systematic, interactive exposition, Oral exposure, Power Point presentations.**
Content	1. Traumatism of temporary teeth - clinical forms, diagnosis, treatment.
	2. Traumatism of young permanent teeth - clinical forms, diagnosis, treatment.
	3. Diseases of oral mucosa in children and adolescents - clinical forms, diagnosis, treatment.
	4. Periodontal diseases in children and adolescents - clinical forms, diagnosis, treatment.
	5. The therapeutic approach of children and adolescents with disabilities.

	6. Dental treatment of children with general disorders.
	7. Pain control in pediatric dentistry: anesthesia local, loco-regional, general, sedation.
	8. Medication in children and adolescents.
	9. Dental extraction in pediatric dentistry - indications, contraindications, preoperative preparation, postoperative control, local complications, general, monitoring.
	10. Prosthetic treatment in children and young adults, space maintenance, prosthetic treatment, conjunctival prosthetic treatment, complex oro-dental restorations.
	11. General emergencies in the pediatric dental office.
	12. Colaboration of the pediatric dental treatment plan.
	13. Prophylaxis of dento-maxillary anomalies in children and adolescents.
	14. Therapeutic approach of patients with labio-maxilo-palatine clefts during childhood and adolescence.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical demonstration, interactive dialogue.
Practical activity carried out by students	• Performing complex clinical examinations, Radiographies and study models analysis, dental eruption process assessment, Diagnosis of dental anomalies, Development of positive / differential diagnosis, Perform loco regional anaesthesia for children, Applying methods of dental caries prophylaxis according to dentition and dentition, Staging treatment according to dentition, Performing permanent tooth extraction manoeuvres, Evaluation of the possibilities of curative and prophylactic treatment in children acute and chronic general disorders.
Content	1. Complex clinical examination.
	2. Pedodontic complex diagnosis.
	3. Individualized treatment plan, emergency treatment.
	4. Complementary examinations.
	5. Diagnosis and therapeutic attitude in temporary teeth trauma.
	6. Diagnosis and therapeutic attitude in young permanent teeth trauma.
	7. Clinical and complementary examinations in periodontal disease in children.
	8. Establishing the therapeutic attitude in children periodontitis.
	9. Clinical diagnosis of mucosal diseases in children.
	10. Anesthesia in children and young patients.
	11. Extraction of temporary teeth.
	12. Extraction of permanent teeth.
	13. Prosthetic treatment in children and young patients.
	14. Particular features of pedodontic treatment in children with general medical problems.

Bibliography	• MCDONALD AND AVERY's dentistry for the child and adolescent / Edited by: Jeffrey A. Dean; associate editors: James E. Jones (2022). • KOCH, G., POULSEN, S., ESPELID, I., HAUBEK, D. (Eds.). (2017). Pediatric dentistry: a clinical approach. John Wiley & Sons. • SOXMAN JA, editor. Handbook of clinical techniques in pediatric dentistry. John Wiley & Sons, Incorporated; 2015 Feb 18. • MICHAELA MESAROS, ALEXANDRINA MUNTEAN, Medicina Dentara Pediatrica, Ed. Medicala Universitara" Iuliu Hatieganu", 2016, ISBN 978-973-693-724-8. • ARTHUR NOWAK, JOHN R. CHRISTENSEN. Pediatric Dentistry: Infancy through Adolescence, 6e Hardcover 2018. • MOURSI AM, TRUESDALE AL, editors. Clinical cases in pediatric dentistry. John Wiley & Sons; 2020 Feb 19. • DECLAN T. MILLETT, PETER DAY. Clinical Problem Solving in Dentistry: Orthodontics and Paediatric Dentistry. 2016. • CAMERON AC, WIDMER RP. Handbook of Pediatric Dentistry E-Book. Elsevier Health Sciences; 2021 Sep 1. • M. MULLER-BOLLA. Guide d'odontologie pediatrique, 2018.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50 %**	**30%**	**20%**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				1 MaxilloFacial Surgery and Radiology					
Discipline				MaxilloFacial Surgery and Implantology					
Cours title				**ORAL AND MAXILLO-FACAL SURGERY**					
Responsible for lecture				**Assoc. Prof. Dr. Cristian Dinu**					
Responsible for practical activity				Vacancy position Prof. pos. 8 Lecturer. Dr. Armencea Gabriel Vacancy position Assist. Prof. pos. 42					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			

6	2	1	3	14	42	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Head and neck anatomy. Physiology. Pathophysiology. Pathology. Dental radiology. Dental-maxillary apparatus anatomy and physiology. • Oral and Maxillofacial Surgery and pathology. • The ability to analyze the anatomo-clinical parameters while studying a clinical case. • Critical analysis and interpreting of laboratory results and other • paraclinical explorations. • The ability to set the correct clinical diagnosis in the orofacial area. • Correct prescriptions writing.
Requisities for lectures and practical activities	• Amphitheater with projection systems. • Laboratories that offer proper conditions for the practical courses to unfold. • Offices with dental chairs, treatment rooms, operating rooms.

Professional competences	• Appropriation of theoretical and practical notions regarding the patient's examination specific for this field. • Acquiring knowledge of oral and maxillofacial pathology. • Acquiring the necessary abilities to set the correct diagnosis and establish a correct treatment plan in salivary glands pathology and maxillofacial pain.
Transversal competences	• The use of the acquired knowledge in new contexts. • The implementation of theoretical notions in practical situations. • Establishing inter-disciplinary correlations between the studied subjects • The ability to communicate with the pacient in an efficient way. • To show preoccupation for professional development by training the abilities of analytical and synthetical thinking. • To prove involvement in research activities by elaborating scientific articles.
General objectives	• The course offers Sixth year students of the Dental Medicine Faculty theoretical notions concerning oral and maxillofacial pathology. • The practical courses aim to offer students the necessary skills to set a correct diagnosis and establish an adequate treatment plan in salivary glands pathology and maxillofacial pain.
Specific objectives	• Assimilating knowledge of oral and maxillofacial pathology. • Appropriation of the necessary skills to set a correct diagnosis and establish an adequate treatment plan in salivary glands pathology and maxillofacial pain.

LECTURES

Teaching methods	• **Lecture, Systematic and interactive explanations of topic related cases.** • **Oral presentations, Power-Point presentations.**
Content	1. The anatomy and physiopathology of salivary glands. Notions of semiology. Methods of exploring the salivary glands.
	2. The malformations of salivary glands. Salivary secretory disorders. Hyposialia, hypersialia.
	3. The wounds of the salivary glands. The fistulas of the salivary glands.
	4. The inflammations of the salivary glands: etiology. Acute non-lithiasic sialadenitis: acute parotiditis, chronic parotiditis.
	5. The inflammations of the salivary glands: etiology. Acute non-lithiasic sialadenitis: acute submaxilitis, chronic submaxilitis.
	6. Salivary lithiasis. Etiology. Clinical types. Submandibular lithiasis. Diagnosis principles and treatment.
	7. The lithiasis of the Stenon duct. The lithiasis of the parotid gland. Diagnosis principles and.
	8. The tumors of the salivary glands. General aspects. The classification of salivary glands tumors. Clinical types of salivary glands tumors. Benign tumors of the salivary glands.
	9. The malignant tumors of the salivary glands. The dentist's tasks. Treatment principles.
	10. The sialosis. General aspects. The Sjogren syndrome. The Mickulitz disease. The Mickulitz syndrome. The parotidomegaly.
	11. The pain in the oro-maxillo-facial area. General aspects, physiopathology and classification. The superficial somatic pain. The burning mouth syndrome. The deep somatic pain. The musculoskeletal pain.
	12. The deep somatic pain. The visceral pain. The pulpal pain. The vascular pain.
	13. The neurogenic pain. The paroxysmal neuralgic pain. The essential trigeminal neuralgia. The essential glossopharyngeal neuralgia.
	14. The neurogenic pain. The persistent neuralgic pain. Symptomatic or secondary facial neuralgias. The psychogenic pain.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentations. Interactive teaching. • Interactive teaching. Practical courses with the participation of the students in the surgical treatment of oral and maxillo-facial pathologies.
Practical activity carried out by students	• Case study, case presentations.
Content	1. Improving the knowledge on the clinical examination of the patients with oro-maxillo-facial diseases.
	2. Improving the knowledge on the clinical examination of the patients with oro-maxillo-facial diseases.
	3. Improving the knowledge on the clinical examination of the patients

	with oro-maxillo-facial diseases.		
	4. Improving the knowledge on the clinical examination of the patients with oro-maxillo-facial diseases.		
	5. Inserting the results in the clinical observation sheets and corroborating the clinical results with the paraclinic ones.		
	6. Improving the abilities concerning hygiene rules, asepsis and antisepsis in the ambulatory care and for internal patients in the oro-maxillo-facial surgery clinic.		
	7. The evaluation of the patient with salivary gland diseases.		
	8. Methods of exploring the salivary glands.		
	9. The examination and case presentation in acute diseases of the salivary glands.		
	10. The examination and case presentation in chronic diseases of the salivary glands.		
	11. The examination of the patient with pain in the oro-maxillo-facial area.		
	12. Complementary investigations in patients with pain in the oro-maxillo-facial area.		
	13. The essential trigeminal neuralgia – case presentation.		
	14. Symptomatic and secondary facial neuralgias – case presentation.		
Bibliography	1. Alexandru Rotaru, Grigore Băciuţ, Horaţiu Rotaru, CHIRURGIE MAXILO-FACIALĂ, Vol. I si Vol. II, Editura Medicală Universitară "Iuliu Haţieganu" Cluj- Napoca, 2003. 2. Al. Bucur, Gr. Băciuţ, M. Surpăţeanu, sub redacţia, Managementul afecţiunilor chirurgicale oro-maxilo-faciale, 2012, Editura Didactică şi Pedagogică, Bucureşti, ISBN 978-973-30-3136-9. 3. Bucur A. & all, "Compendiu de Chirurgie oro-maxilo-facială" vol.II Editura Qmed Publishing, Bucureşti 2009. 4. Haggerty C.J., Laughlin R.M. Atlas of Operative Oral and Maxillofacial Surgery. Wiley Blackwell, 2015. 5. Hupp J.R., Ellis E., Tucker M.R. Contemporary Oral and Maxillofacial Surgery. 7th ed. Elsevier; Philadelphia, 2019. 6. Fonseca Raymond J. Oral and maxillofacial surgery. Third edition, Elsevier; 2018.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**50%**	**-**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English

Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Health
Cours title	**PROFESSIONAL ORGANIZATION AND LEGISLATION**
Responsible for lecture	**Lecturer Dr. Mester Alexandru**
Responsible for practical activity	Lecturer Dr Mester Alexandru Lecturer vacant 27 Associate prof. Vacant 10
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	2	2	2	28	28	44	100	4	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Current knowledge of the dental field.
Requisities for lectures and practical activities	• To understand the legislative framework. • To acquire principles of dental office organization. • Recognize malpractice in dentistry. • Ability to make responsible decisions. • To acquire basic principles of dental office organization. • To understand the legislative framework. • Risk management in dentistry.

Professional competences	• Legal concepts in dentistry. • The regulation of dental practice. • Standard of care. • Dental risk management
Transversal competences	• Application of legislative framework in dental practice. • Establishment of interdisciplinary correlations in the studied fields.
General objectives	• This course is focused on the use of law and policy tools to promote access to an evidenced-based dentistry as an important determinant of patient health and community wellbeing.
Specific objectives	• To introduce the constitutional foundations of laws in dentistry. • To enable students to extrapolate legal theories and reasoning essential to careers as dental practitioners. • To enable students to navigate dental research for the purposes of supporting their own viewpoints related to health laws.

	• To develop confidence and competence when debating, addressing and presenting controversial dental policies.

LECTURES	
Teaching methods	• **Oral presentation**
Content	1. Introduction into Professional Organization, Legislation and Malpractice. Competences of dental practitioners.
	2. The regulation of dentistry.
	3. Rights and Obligations. Legal Responsibilities of Patients and Dental Practitioners.
	4. Informed Consent.
	5. General Data Protection Regulation in Dentistry.
	6. Dental Clinic Guidelines Regulations.
	7. Dental Malpractice – general data, types of malpractice.
	8. Malpractice in odontology and endodontics.
	9. Malpractice in prosthodontics.
	10. Malpractice in periodontology.
	11. Malpractice in implantology.
	12. Malpractice in oral surgery.
	13. Malpractice in orthodontics.
	14. Malpractice in multidisciplinary approach.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical laboratories.
Practical activity carried out by students	• Case presentation and discussion.
Content	1. Legislative framework and dental office.
	2. Dental office principles.
	3. Administration of a dental office.
	4. Allocation of human resources in dental office.
	5. Quality management in dental office.
	6. Facilities and equipment necessary in a dental office.
	7. Hazard control in dental office.
	8. Radiation control in dental office.
	9. Infection control in dental office.
	10. Environment of care in dental office.
	11. Dental clinic protocols.
	12. Dental health records .
	13. Economic profits of the dental office.
	14. Corporate dentistry.
Bibliography	1. Koff S. The dental team in the European Union. Springer. 2021. 2. FDI World Dental Federation. Dental Ethics Manual 2. Quintessence Publishing. 2018.

	3. Principles of ethics and code of Professional Conduct. American Dental Association. 2018. 4. Ududec et al. Human Rights in patient Care. Bucharest. 2015. 5. Graskemper J. Professional responsibility in dentistry. Wiley-Blackwell. 2011. 6. Cruz L. Legal Aspects of General Dental Practice. Churchill Livingstone. 2006. 7. Lamboden Paul. Dental Law and Ethics. Radcliffe Medical Press: Oxford. 2005. 8. Polack B. Law and risk management in dental practice. Quintessence. 2002. 9. Ozar D, Sokol D. Dental Ethics at Chairside: Professional Principles and Practical Applications. 2nd Ed. Washington, DC: Georgetown University Press. 2002. 10. Course support.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**80%**	**%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Rehabilitation
Cours title	**PHYSIOTHERAPY IN DENTISTRY**
Responsible for lecture	Assoc. Prof. 9 - vacancy
Responsible for practical activity	Assoc. Prof. 9 - vacancy Lecturer 25 - vacancy Lecturer 26 - vacancy Assist.44 - vacancy
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	2	1	2	14	28	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary	• Knowledge of dental medicine, physiology, biophysics.

conditions)	
Requisities for lectures and practical activities	• Amphitheater with projection system/ Online system. • Dental offices with specific facilities for practical activities/ Online system.

Professional competences	• The ability to use the specialized terminology properly and contextually. • Knowledge of the concepts regarding the procedures of general physiotherapy, balneology, phototherapy and electrotherapy. • Knowledge of the modalities of applicability of physiotherapeutic methods in various pathologies in the oro-maxillofacial sphere. • Acquiring some knowledge regarding the professional risk for the osteo-articular apparatus and ergonomic techniques to limit this risk.
Transversal competences	• Using assimilated notions in new contexts. • The application of theoretical notions in practical activity. • Establishing interdisciplinary correlations in the studied fields.
General objectives	• Acquiring knowledge about alternative methods of classical dental medicine - physiotherapeutic methods.
Specific objectives	• Acquiring the concepts of general physiotherapy. • Acquiring knowledge about the mechanisms of action of the therapeutic factors used in physiotherapeutic procedures. • Knowledge of the pathology within the dental medicine that can be treated by physiotherapy procedures. • Acquisition of the concepts regarding the professional risk for the osteo-articular apparatus. • Acquiring the skills to use physiotherapy equipment in the dental office

LECTURES	
Teaching methods	• **Lecture, systematic interactive presentation.** • **Oral presentation,** • **Power-point presentation.**
Content	1. History of physiotherapeutic applications.
	2. The mechanisms of action of the therapeutic factors used in physiotherapeutic procedures.
	3. Hydrotherapy and thermotherapy; applications in dental medicine.
	4. Balneology and its implications in oro-maxillofacial pathology.
	5. Phototherapy and heliotherapy in dental medicine.
	6. Low power laser therapy (LLLT) and its applications in dentistry.
	7. Ultrasound therapy: their applications in dental medicine.
	8. Methods of electrotherapy: galvanic current and ionophoresis, applications in dental medicine.
	9. Electrotherapy methods: diadynamic currents, low-frequency pulsed currents (TENS), applications in dental medicine.
	10. Climatotherapy: climatic zones in Romania and clinical applications.

	11. Peloid therapy and applications in dental medicine of sludge.
	12. Kinetotherapy and massage: principles, methods and applications in dental pathology.
	13. Specific applications of physiotherapeutic procedures in dental medicine.
	14. Specific applications of physiotherapeutic maneuvers in dental medicine.
PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentation, interactive presentation.
Practical activity carried out by students	• Power-point presentation, practice the working equipment settings as directed, applications of different procedures, exercise ergonomic working positions with four hands in spaces with specific equipment, training activities on applications of cataplasms and compresses in postoperative recovery, case report.
Content	1. Knowledge of the usual devices used in physiotherapy.
	2. Specific setting of the working parameters of the physiotherapy apparatus.
	3. Knowledge of the pathology in dental medicine that can be treated by physiotherapy procedures.
	4. Possibilities and limits of physiotherapy in dental medicine.
	5. Practical demonstrations with the devices of the Physiotherapy Discipline.
	6. Principles of ergonomics in dental medicine and applications of physiotherapy procedures to combat the negative effects of work in the dental medicine office.
	7. Mechanotherapy and massage in disorders in the field of dental medicine.
	8. Balneology and its implications in oro-maxillofacial pathology.
	9. Hydrotherapy and thermotherapy; applications in dental medicine.
	10. Peloid therapy and dental medicine applications of indigenous sludge.
	11. Physiotherapy treatments applied in patients with periodontal diseases.
	12. Physiotherapy treatments applied to patients with temporo-mandibular dysfunction.
	13. Physiotherapy treatments applied in bone fractures at the level of the maxillo-facial area.
	14. Physiotherapeutic treatments applied in essential and secondary trigeminal neuralgia.
Bibliography	1. Lucaciu Patricia Ondine, Ilea Aranka, Ionel Anca, Crișan Bogdan, Bordea Roxana, Petrescu Nausica, Aghiorghiesei Ovidiu, Câmpian Radu Septimiu. Fizioterapia.Aplicații în medicina dentară.Editura Școala Ardeleană, Cluj-Napoca 2020. 2. Pop Liviu. Curs de balneofizioterapie şi recuperare medicală. Cluj Napoca, 1994.

	3. Bocu Traian, Tache Simona. Elemente de profilaxie şi terapie prin mişcare.. Cluj Napoca; Editura Medicală Universitară „Iuliu Haţieganu", 2001. 4. Stratulat Sorin Ioan .Recuperarea medicală.. Iasi ; Performantica, 2005. 5. Rădulescu Andrei, Teodoreanu Elena. Fizioterapie.. Bucuresti; Editura Medicala, 2002. 6. Kiss Iaroslav.Fizio-kinetoterapia şi recuperarea medicală în afecţiunile aparatului locomotor. Bucureşti; Editura Medicală, 2004. 7. El Bsat Ruxandra.Fizioterapie pentru kinetoterapeuţi. Bucuresti; Semne, 2002. 8. Chirilă Lucian .Balneo-fizioterapie şi recuperare medicală.. Bucureşti; Printech, 1999. 9. Stroia Victoria. Balneologie şi recuperare medicală. Constanţa, 1997. 10. Popescu Roxana, Patru Simona .Hidrotermoterapie şi balneologie.. Craiova; editura Medicală Universitara, 2003. 11. Georgiana-Ozana Tache .Fizioterapia-prezentare şi aplicaţii în patologia medicinii dentare,Curs şi Lucrări Practice, Bucureşti 2006.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**80 %**	**-**	**20 %**

Institution for graduate and postgraduate studies			University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca				
Faculty			Dental Medicine				
Domain of study			Health				
Academic degree			Dental Medicine in English				
Level of course			I and II- License and masters				
Qualification			Doctor of Dental Medicine				
Department			3 Oral Rehabilitation				
Discipline			Oral Health				
Cours title			**MEDICAL DEONTOLOGY. BIOETHICS**				
Responsible for lecture			Alexandru Meșter DMD PhD MSC MPH Lecturer				
Responsible for practical activity			Alexandru Meșter DMD PhD MSC MPH Lecturer Assisting Professor Dr Adina Sirbu Assisting Professor 46-Vacant				
The formative category of the discipline			DC				
Compulsory discipline			Compulsory				
Year	Sem	hours/week	hours/semester	Total	Credits	Type of	

		C	LP/S	C	LP/S	SI			Assessment
6	2	1	1	14	14	22	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Current knowledge of the dental field. • General concepts of deontology and bioethics in dentistry.
Requisities for lectures and practical activities	• Recognize the components of ethical decision-making process. • To understand the legislative framework. • Risk management in dental practice. • Identify current challenges in regards to the relation between dentist, patient and dental team. • The impact of policies in dental office.

Professional competences	• Apply principles of ethics and professionalism in the dental office. • Recognize ethical conflicts that occur in dentistry. • Assume the responsibility for dental practitioners based on accepted standards of care.
Transversal competences	• Apply of theoretical concepts to practical work. • Establish an interdisciplinary correlation in the studied fields. • Use evidence-based medicine to improve dental healthcare performance in regards to the quality of care and the patient management.
General objectives	• Ethics for dental practitioners. • Dental practice and jurisprudence. • Standards of dental practice. • Social issues. • Patient management.
Specific objectives	• Evaluation of dental ethics from inception until present. • Comparison of dental ethics and jurisprudence. • Understand the concepts of ethical vs unethical behavior. • Application of code of ethics

LECTURES	
Teaching methods	• **Oral presentation.**
Content	1. Deontology and Bioethics: Foundation and theories.
	2. Values and morals of dental practitioners.
	3. Professional obligations and responsibilities.
	4. Code of ethics.
	5. Standard of care and scope of practice.
	6. Ethical Decision-Making.
	7. Communication and social skills.
	8. The relationship of dentist, patient, dental team and external

	collaborators.
	9. Confidentiality.
	10. The impact of business environment in dental practice.
	11. Advertising and social media.
	12. Research in dentistry.
	13. Dental practice in the community.
	14. Ethical dilemmas: pitfalls and solutions.
PRACTICAL ACTIVITIES	
Teaching methods	• Practical laboratories.
Practical activity carried out by students	• Application of ethical decision-making process to resolve different ethical dilemma present in the dental office.
Content	1. Aims and ethical principles applied in dentistry.
	2. The social impact of dentistry.
	3. The professional responsibility of dental practitioners.
	4. Moral capacity of dental practitioners.
	5. Disclosure and misinterpretation in dentistry.
	6. Dental risk management.
	7. Ethics and law.
	8. Ethical traps and pitfalls in dentistry business.
	9. Access to dental care.
	10. Patient communication.
	11. Personal conduct and behavior.
	12. Working with third parties.
	13. Dental ethics in Romania and worldwide.
	14. Ethical issues.
Bibliography	1. Koff S. The dental team in the European Union. Springer. 2021. 2. FDI World Dental Federation. Dental Ethics Manual 2. Quintessence Publishing. 2018. 3. Principles of ethics and code of Professional Conduct. American Dental Association. 2018. 4. Ududec et al. Human Rights in patient Care. Bucharest. 2015. 5. Graskemper J. Professional responsibility in dentistry. Wiley-Blackwell. 2011. 6. Cruz L. Legal Aspects of General Dental Practice. Churchill Livingstone. 2006. 7. Lamboden Paul. Dental Law and Ethics. Radcliffe Medical Press: Oxford. 2005. 8. Polack B. Law and risk management in dental practice. Quintessence. 2002. 9. Ozar D, Sokol D. Dental Ethics at Chairside: Professional Principles and Practical Applications. 2nd Ed. Washington, DC: Georgetown University Press. 2002. 10. Course support.

Evaluation:	Written Exam	Practical Exam	Activity during the semester:
Percent of the final grade:	80%	%	20%

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Pedodontics
Cours title	**PEDODONTICS - SP**
Responsible for lecture	**Lecturer Dr. Meda-Romana Simu**
Responsible for practical activity	Lecturer Dr. Meda-Romana Simu Assist. Dr. Raluca Diana Ghiran Assist. Drd. Irina Lupșe Vacant asist. poz 48
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	2	-	3	-	42	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy and physiology of dento-maxillary system.
Requisities for lectures and practical activities	• Amphitheater with projection system. • Cabinets with dental units.

Professional competences	• Particularities of clinical and complementary examination in pediatric dental medicine. • Behavioral particularities of the child and adolescent patient. • Oral mucosal pathology in children. • Dento-periodontal traumatic injuries during childhood and adolescence. • Pedodontic treatment in children with general medical problems. • Parodontopathies - peculiarities of diagnosis and treatment during childhood and adolescence. • Medical emergencies in the pediatric dental office.
Transversal competences	• Using similar concepts in new contexts. • Application of theoretical concepts in practical activity.

	• Establish interdisciplinary correlations in the studied areas.
General objectives	• Psychology and approach to the child in the dental office. • Particularities of diagnosis and treatment of dental lesions in children and youth. • Particularities of mucosal diseases, periodontal diseases, during childhood and adolescence. • Dento-periodontal trauma in children and young people. • Management of patients with general pathology. • Prevention of dento-periodontal diseases and dento-maxillary anomalies during childhood and adolescence.
Specific objectives	• Particularities of clinical and complementary examination in children and young people. • Techniques of communication and approach of the child and adolescent patient. • Mucosal disorders in children. • Dento-periodontal traumatic lesions in children and adolescents. • Periodontal diseases in children and young people. • Elaboration and phasing of the complex treatment plan. • Exercise of synthesis and bibliographic documentation.

PRACTICAL ACTIVITIES	
Teaching methods	• Practical demonstration, interactive dialogue.
Practical activity carried out by students	• Performing complex clinical examinations, Radiographies and study models analysis, dental eruption process assessment, Diagnosis of dental anomalies, Development of positive / differential diagnosis, Perform loco regional anaesthesia for children, Applying methods of dental caries prophylaxis according to dentition and dentition. Staging treatment according to dentition. Performing permanent tooth extraction manoeuvres. Evaluation of the possibilities of curative and prophylactic treatment in children acute and chronic general disorders.
Content	1. Diagnosis and therapeutic attitude in temporary teeth trauma.
	2. Diagnosis and therapeutic attitude in young permanent teeth trauma.
	3. Clinical and complementary examinations and treatment of oral mucosa disease in children.
	4. Clinical and complementary examinations and therapeutic attitude for periodontal disease in children.
	5. The therapeutic approach of children and adolescents with disabilities.
	6. Particular features of pedodontic treatment in children with general medical problems.
	7.Anesthesia in children and young patients.
	8. Medication in children and adolescents.
	9. Extraction of temporary and permanent teeth: indication, techniques.

	10. Prosthetic treatment in children and young patients.		
	11. Individualized treatment plan, emergency dental treatment.		
	12. Management of general emergencies in the pediatric dental office.		
	13. Prophylaxis of dento-maxillary anomalies in children and adolescents.		
	14. Particular features of pedodontic treatment in children with labio-maxillo-palatine cleft.		
Bibliography	• MCDONALD AND AVERY's dentistry for the child and adolescent / Edited by: Jeffrey A. Dean; associate editors: James E. Jones (2022), KOCH, G., POULSEN, S., ESPELID, I., HAUBEK, D. (Eds.). (2017). Pediatric dentistry: a clinical approach. John Wiley & Sons. • SOXMAN JA, editor. Handbook of clinical techniques in pediatric dentistry. John Wiley & Sons, Incorporated; 2015 Feb 18. • MICHAELA MESAROS, ALEXANDRINA MUNTEAN, Medicina Dentara Pediatrica, Ed. Medicala Universitara" Iuliu Hatieganu", 2016, ISBN 978-973-693-724-8. • ARTHUR NOWAK, JOHN R. CHRISTENSEN. Pediatric Dentistry: Infancy through Adolescence, 6e Hardcover 2018. • MOURSI AM, TRUESDALE AL, editors. Clinical cases in pediatric dentistry. John Wiley & Sons; 2020 Feb 19. • DECLAN T. MILLETT, PETER DAY. Clinical Problem Solving in Dentistry: Orthodontics and Paediatric Dentistry. 2016. • CAMERON AC, WIDMER RP. Handbook of Pediatric Dentistry E-Book. Elsevier Health Sciences; 2021 Sep 1. M. MULLER-BOLLA. Guide d'odontologie pediatrique, 2018.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50 %**	**30%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Health
Cours title	**PUBLIC HEALTH IN DENTISTRY – Practical activity**

Responsible for lecture									
Responsible for practical activity				Lecturer Alexandru Mester As.dr. Ovidiu Aghiorghiesei As.dr. Adina Sirbu					
The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	12	-	3	-	42	33	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of dental medicine, public health, epidemiology.
Requisities for lectures and practical activities	• Virtual amphitheater with projection system. • Laboratories with specific equipment for practical activities.

Professional competences	• Capacity to adequately and in context use the specialty terminology. • Deepening the notions of primary and secondary prophylaxis. • Preserving oral health – hospitalization. • Continuous improvement of life quality correlated with oral health – regarding the population's health and comfort state. • Implementation of a healthy behavior among the population. • Perfection of the capacity to render prophylactic and theoretical knowledge in medicine.
Transversal competences	• Use of assimilated notions in new contexts. • Application of theoretical concepts to practical activity. • Establishment of interdisciplinary correlations in the studied fields.
General objectives	• Knowing the oral health problems worldwide and the role of the dentist in regarding the assessment of the oral health, of its determinants and the possibilities to influence the oral health status.
Specific objectives	• Learning the knowledge regarding the health concepts. • Developing concepts of oral-dental public health. • Promotion of oral health. • Monitoring and public assistance of dental disseases. • Prevention and control of dental diseases and promotion of dental health through the effort of the community. • Health condition of the population depending on the determinants of the health condition: social-economical, biological, environmental, life style, insurance of health services, quality and accesibility of health services. • Exercising the capacity of synthesis and documentation item.

PRACTICAL ACTIVITIES			
Teaching methods	• PowerPoint presentations, interactive teaching.		
Practical activity carried out by students	• Essay presentation on the topic.		
Content	1.Assessment of oral health status. Standard forms.		
	2. Assessment of oral health status. Standard forms.		
	3. Assessment of oral health status. Standard codes.		
	4. Assessment of oral health status. Standard codes.		
	5. Clinical examination. Dentition status.		
	6.Clinical examination. Periodontal status:		
	7. Clinical examination. Community Periodontal Index, (CPI) modified.		
	8. Clinical examination. Loss of attachment.		
	9. Clinical examination. Enamel fluorosis.		
	10. Clinical examination. Dental erosion.		
	11. Clinical examination. Traumatic dental injuries.		
	12.Clinical examination. Oral mucosal lesions. Denture status		
	13. Clinical examination. Oral mucosal lesions. Denture status.		
	14. Preparation of survey reports.		
Bibliography	1. Farah C.S., Balasubramaniam R., McCullough M.J. Contemporary Oral Medicine. 2019. Springer International Publishing AG. 2. WHO. International Standards for Clinical Trial Registries. 2018.World Health Organization.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:		**80%**	**20%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	3 Oral Rehabilitation
Discipline	Oral Rehabilitation
Cours title	**ORAL REHABILITATION – SP**
Responsible for lecture	**Lecturer dr. Anida Maria Băbțan**
Responsible for practical activity	Assist. Dr. Andreea Simona Pop Assist. Dr. Claudia Nicoleta Feurdean Assist. 45 - vacancy
The formative category of the discipline	DS

Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	12	-	2.5	-	35	40	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of Odontology, Endodontics, Prosthetics, Periodontology, Maxillofacial Surgery, Implantology, Orthodontics, Internal Medicine, Pharmacology, Pathophysiology • Knowledge in assessing one patients' health status, dental clinical oral cavity examination, diagnosis.
Requisities for lectures and practical activities	• Amphitheater with projection system/ Online system • Dental offices with specific facilities for practical activities/ Online system.

Professional competences	• Knowledge appropriation related to patient's complex oral rehabilitation. Patients' holistic approach in the dental medicine office. • The ability to decide on the opportunity of a dental procedure in the context of the presence of a general condition. • The ability to evaluate the particularities of the dental treatment performed in patients with general conditions. • The ability to evaluate the bidirectional interrelationship between general disorders and oral cavity pathology. • Prevention of transmission of infectious diseases in the dental office.
Transversal competences	• Integration of the concepts assimilated in Odontology, Endodontics, Prosthetics, Periodontology, Maxillofacial Surgery, Implantology, Orthodontics, Internal Medicine, Pharmacology, Pathophysiology in the context of complex oral rehabilitation. • Theoretical notions in practical activity implementation. • Interdisciplinary associations in the studied fields assessment.
General objectives	• Particularities of dental treatment in patients with associated pathologies.
Specific objectives	• Specific patient's (with associated diseases) assessment in order to treat the oral cavity pathologies. • Dental treatments timing assessment in patients with general disorders assessment. • Specific patient's (with associated diseases) assessment, optimal time and post-interventional response and follow-up – related. • Complex rehabilitation of dento-maxillary system functions pathologies, dento-periodontal structures supported.

PRACTICAL ACTIVITIES	
Teaching methods	• Power-point presentations - clinical cases- based associated to interactive discussions. Practical demonstrations. Practical work: clinical and paraclinical examination, diagnosis assessment and dental treatments progress according to the established treatment plan.
Practical activity carried out by students	• Techniques learned during the years of study underway. The association of different dental treatments, in a staged and coherent manner, with the aim of preparing final year students for the diversity of dental and general pathologies of patients who present themselves in dental offices.
Content	1. Labor protection in the dental office. Specialty practice - Medical documents tracking; dental instrument's trackin the dental office; protocols for dental materials; protocol for receiving and examining patients in dental offices; observation sheet filling.
	2. Specialty practice - dental diagnosis and related conditions protocol assessment; complex oral rehabilitation treatment plan conduction in the context of associated conditions and chronical medication. Digital workflow in the dental office.
	3. Specialty practice - work protocol for evaluating the influence of the pharmacotherapy administered for the associated conditions regarding dental interventions; the interrelationship between patients' chronic medication and pharmacological preparations/medicines used in dental practice.
	4. Specialty practice - patients with/without comorbidities taking over and drafting medical letters with the aim of streamlining communication between the dentist and family doctors/specialists in different medical sub-branches. Pharmacological prescription in the dental office.
	5. Specialty practice – the particularities of prophylactic treatment in oral rehabilitation.
	6. Specialty practice - patients with/without comorbidities taking over and the specific patients\ assessment in order to perform dental treatments.
	7. Specialty practice –patients with/without comorbidities taking over and the periodontal treatment particularities of in the context of complex oral rehabilitation.
	8. Specialty practice – patients' with/without comorbidities taking over and the particularities of surgical treatment in the context of complex oral rehabilitation.
	9. Specialized practice – patients' with/without comorbidities taking over and the dental treatment particularities in the context of complex oral rehabilitation.

	10. Specialty practice – patients' with comorbidities taking over and endodontic treatment particularities in the context of complex oral rehabilitation.
	11. Specialty practice – patients' with/without comorbidities taking over and orthodontic treatment particularities in the context of complex oral rehabilitation.
	12. Specialty practice –patients' with/without comorbidities taking over and prosthetic treatments particularities. Intraoral scanning digital impression versus conventional/analogue impression.
	13. Specialty practice – patients' with/without comorbidities taking over and implant treatment particularities. Stages of complex implant - prosthetic oral rehabilitation.
	14. Specialty practice – patients with associated conditions monitorings' features the dental office. Case presentation – medical letter – treatment plan in the context of general conditions – photos before/after dental therapy – discussions.
Bibliography	1. Reabilitare Orală –G.Băciuț, M.Baciut, R.S.Campian, C.Balog, D. Pop – Ed medicala Universitara Iuliu Hatieganu, Cluj Napoca, 2002, ISBN 973-8019-90-7. 2. Proteze și aparate chirurgicale oromaxilofaciale –R.S. Câmpian- Ed. Medicală Universitară Iuliu Hatieganu, Cluj Napoca, 2007, ISBN 978-973-693-256-4. 3. Implicațiile multidisciplinare în durerea orală și cranio-facială- A. Rotaru, C. Sarbu, R.S. Campian, I. Munteanu, H. Rotaru – ED. Clusium, Cluj Napoca, 2001, ISBN 973-555-299-X. 4. Medical problems in dentistry - C. Scully, R. Cawson, Elsevier, 2016. 5. Afecțiunile buco-dentare și sarcina – P.Vartej, M. Gafar, H. Panaite, Ed. All Educational S.A.,1998,ISBN 973-9337-40-6. 6. 6. Tratat de epidemiologie a bolilor transmisibile- Ivan Aurel, Editura Polirom Bucureşti 2002 , pag 259-309. 7. SEER Coding and Staging Manual (2010). The 2010 manual is to be used for cases diagnosed January 1, 2010 and forward 8. https://www.cancer.gov/types/head-and-neck/patient/paranasal-sinus-treatment-pdq. 9. https://www.cancer.org/cancer/nasal-cavity-and-paranasal-sinus-cancer/treating.html. 10. http://www.msdmanuals.com/home/ear,-nose,-and-throat-disorders/nose-and-sinus-disorders/rhinitis. 11. van der Molen T. Co-morbidities of COPD in primary care: frequency, relation to COPD, and treatment consequences. Prim Care Resp J, 2010,19(4): 326-334. 12. Prasad et al / Chronic Obstructive Pulmonary Disease (COPD). 13. International Journal of Pharmacy Research & Technology | Jan - June 2020 | Vol 10 | Issue 1. 14. https://www.britannica.com/science/olfactory-bulb.

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20. Ministry of Health Clinical Practice Guidelines: Prevention, Diagnosis and Management of Tuberculosis.
21. Supriya Sharma, Jyoti Bajpai, Pankaj K. Pathak, Akshyaya Pradhan, Priyanka Singh, and Surya Kant. Oral tuberculosis - Current concepts. J. Family Med Prim Care, 2019 Apr; 8(4): 1308–1312. doi: 10.4103/jfmpc.jfmpc_97_19.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:		**80 %**	**20 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Orthodontics
Cours title	**ORTHODONTICS AND DENTO-FACIAL ORTHODONTICS - SP**
Responsible for lecture	Assoc. Prof. Dr. Dana Feștilă
Responsible for practical activity	Assoc. Prof. Dr. Dana Feștilă Lecturer Dr. Mircea Ghergie Assist. Dr. Olimpia Bunta Asist. Drd. Suciu Tudor

The formative category of the discipline				DS					
Compulsory discipline				Compulsory					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	2		2.5		35	40	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Notions of orthodontics and dental radiology.
Requisities for lectures and practical activities	• Amphitheater with a projection system. • Laboratory with specific practical activities: Cabinet equipped with dental units.

Professional competences	• Capacity to properly use speciality terms. • Knowing the morphology of various groups of teeth. • Knowing the morphology of the dental arches. • Acquireing notions of norlam oclusion. • Acquireing general information about the reference positions of the maxilla and mandible : centric relation, posture, habitual bite. • Acquiring practical experience through the use of specialist instruments for executing the necessary stages in establishing an orthodontic diagnosis. • Acquiring necessary practical experience in utilising specialist instruments in the view of manipulating orthodontic appliances.
Transversal competences	• Use of notions from new context. • Application of theoretic notions in the practical activity. • Establishing a interdisciplinary correlation.
General objectives	• Knowledge of dento-maxillary anomalies and possibilities of treatment.
Specific objectives	• Appropriation of knowledge about growth and development of the dento-maxillary apparatus. • Clinic and complementary examinations. • Remembering the clinical table for dento-maxillary anomalies and etiological factors implicated in its production. • Establishing a diagnostic and therapeutic plan. • Knowledge of objectives of treatments. • Knowledge of mobile orthodontic devices (classification, components, mode of action). • Appropriation of practical knowledge for realizing the mobile orthodontic devices. • Prophylaxis and interception of the dento-maxillary anomalies. • Practicing capacity for synthesizing documents bibliographic.

PRACTICAL ACTIVITIES	
Teaching methods	• Interactive exercises on real supports. • Recognizing teeth and occlusion. Measurements. • Facial examination on virtual support. • Interactive exercises on real and virtual supports (casts, pictures).
Practical activity carried out by students	• Examination and patient files. • Examination and measurement on casts. • Examination of pictures. • Examination of radiographs. • Conclusions of examination. • Drawing exercises. • Application and use of the orthodontic appliances exercises. • Activation of the removable and functional orthodontic appliances exercises. • Demonstrations. • Orthodontic extractions. • Prophylaxis. • Synthesis of acquired information and testing.
Content	1. Diagnosis: clinical examination.
	2. Diagnosis: cast study.
	3. Diagnosis: patient photography study.
	4. Diagnosis: cephalometric study and tracing.
	5. Treatment planning.
	6. Establishing the steps in fixed orthodontic treatment.
	7. Application and use of the orthodontic retainers.
	8. Check-ups, activation of the fixed appliances.
	9. Taking impression.
	10. Orthodontic extractions treatment plan.
	11. Clinical cases.
	12. Clinical cases.
	13. Clinical cases.
	14. Clinical cases.
Bibliography	1. Lee W. Graber, Robert L. Vanarsdall, Jr., Katherine W. L. Vig , Greg J. Huang. 2. Orthodontics: Current Principles and Techniques 6th Edition, Elsevier, 2016. 3. William R. Proffit, Henry W. Fields, Brent Larson, David M. Sarver. Contemporary Orthodontics, 6th Edition, Elsevier, 2018 4. Martyn Cobourne Andrew DiBiase. Handbook of Orthodontics, Elsevier, 2015. 5. Thilander Birgit, Bondemark Lars Bjerklin. Essential Orthodontics, Willey and Sons, 2017. 6. Ionescu Ecaterina, Manual pentru rezidentiat, vol 2, Editura Universitara “Carol Davila”, Bucuresti, 2021. 7. Pop Silvia Izabella, Pacurar Mariana, Bratu Cristina, Olteanu Cristian, Aparate ortodontice, University Press, 2018.

Evaluation:	Written Exam	Practical Exam	Activity during the semester:
Percent of the final grade:	50%	40%	10%

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4 Prosthetics and Dental materials
Discipline	Prosthetic Dentistry
Cours title	**PROSTHETIC DENTISTRY – SP**
Responsible for lecture	Lecturer Dr. Ispas Ana
Responsible for practical activity	Lecturer Dr. Ispas Ana Assist. Dr. Crăciun Antarinia Assist. Dr. Manziuc Manuela
The formative category of the discipline	DS
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	2		4		56	19	75	3	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the teeth morphology and dental arches. • Knowledge of technology to achieve the removable partial prosthodontics.
Requisities for lectures and practical activities	• Amphitheater with protection system. • Dental offices with dental units.

Professional competences	• Capacity to demonstrate selection and combination skills in theoretical and practical knowledge of designing partial removable dentures. Capacity to demonstrate cognitive skills and abilities on developing a treatment plan for removable partial denture.
Transversal competences	• Capacity to demonstrate skills and abilities of working in a team, developing professional and ethical values; good communication skills, abilities in problem solving and making decisions.
General objectives	• A comprehensive understanding of the complex issues involved in the scientific basis of removable prosthodontics required to establish a good treatment plan for the edentulous patient.
Specific	• Acquiring theoretical and practical knowledge related to the partial

objectives	edentulous therapy. • Knowledge of the components of the removable partial denture (RPD) and acrylic RPDs. • Acquiring biomechanical knowledge of the removable partial denture and acrylic RPDs. • Establishing a diagnosis and treatment plan for the removable partial denture. • Performing the required clinical and laboratory procedures for ensuring an RPD. • Surveying the diagnostic cast and performing the design of the removable partial denture on the diagnostic cast. • Understanding the difference between a provisional acrylic removable partial denture and a removable partial denture. • Practicing the synthesis and documentation capacity.

PRACTICAL ACTIVITIES	
Teaching methods	• Systematic presentation, discussions of the clinical cases, demonstrations of the prosthetics procedures, establishing the treatment plans. Knowledge seminars.
Practical activity carried out by students	• Clinical examinations. Establishing of the prosthetics treatment plan. • Performing of the prosthetic procedures which are involved in the treatment steps of fixed and mobile prosthetics.
Content	1. Preliminary examination of the partially edentulous patient whose treatment plan can be a removable partial denture.
	2. Preliminary impressions for obtaining the diagnostic cast.
	3. Indications of supplementary examinations: radiographs and diagnostic casts.
	4. Pouring the cast and performing the diagnostic cast.
	5. Final examination of the partially edentulous patient. Establishing the comprehensive diagnosis. Developing an appropriate treatment plan for the partially edentulous patient.
	6. Mounting the casts on the articulator.
	7. Surveying the diagnostic cast (identifying the most favorable path of insertion, tripoding the cast, placing the height of contour, locating and making the undercut area).
	8. Designing the treatment plan.
	9. Presentation the necessary steps for performing the wax-pattern.
	10. Performing the wax-pattern of the RPD metal framework.
	11. Accomplishing the prosthetic procedures for the partially edentulous patients (class I K).
	12. Accomplishing the prosthetic procedures for the partially edentulous patients (class II K).
	13. Accomplishing the prosthetic procedures for the partially edentulous patients (class III K).

	14. Accomplishing the prosthetic procedures for the partially edentulous patients (class IV K).		
Bibliography	1. Allan B. Carr David T. Brown. McCracken's removable partial prosthodontics, 2016. 2. Olcay Sakar. Removable partial dentures. Springer Cham, Switerland, 2016. 3. Chang Ting-Ling, Daniela Orellana, and John Beumer. Kratochvil's Fundamentals of Removable Partial Dentures. Quintessence Publishing, 2019. 4. James Field, and |Claire Storei. Removable Prosthodontics at a glance. 1st Edition PDF, Wiley-Blackwell, 2020. 5. LASCU LIANA MARIA, „Les bases théoriques de l'étude du traitement de l'édentement partiel par des prothèses partielles amovibles au châssis métallique" - „L'étude de l'édentement partiel - examen clinique du patient. Les éléments structuraux de la prothèse partielle au châssis métallique", vol.I, Edit. Medic. Univ. "Iuliu Haţieganu" Cluj- Napoca, 2019. 6. LASCU LIANA MARIA, „Les bases théoriques de l'étude du traitement de l'édentement partiel par des prothèses partielles amovibles au châssis métallique"- „La biodynamique de la prothèse partielle amovible au châssis métallique. Les étapes cliniques dans la réalisation des prothèses partielles au châssis métallique", vol.II, vol.I, Edit. Medic. Univ. "Iuliu Haţieganu" Cluj- Napoca, 2019.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50%**	**0%**	**50%**

Optionals Lectures

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2
Discipline	Toxicology
Cours title	**Risks associated with drug consumption**
Responsible for lecture	**Prof. Dr. Béla Kiss**
Responsible for practical activity	-

The formative category of the discipline				DA					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	1	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Physiology.
Requisites for lectures and practical activities	• Students are expected to attend all scheduled lectures on time at the amphitheatre. • If lectures will be organized online, students will connect in time to the Microsoft Teams platform. • They will have their mobile phone switched off. • Students must respect the internal rules and regulations of the university.

Professional competences	At the end of the lectures, students must be aware of: • The extent of drug addiction in Romania and worldwide. • The main health risks associated with drug abuse. • The economic and social consequences of illicit drug abuse and trafficking.
Transversal competences	• At the end of the lectures, students must be able to participate in campaigns aiming to educate and inform the general population (e.g. in high-schools, universities) about the risks of drug abuse.
General objectives	• To acquire theoretical knowledge about the risks associated to drug abuse and addiction.
Specific objectives	To acquire theoretical knowledge about: • The main classes of drugs of abuse: their forms of presentation, ways of consumption. • Causes of drug use and predisposing factors. • Main causes of morbidity and mortality in drug users. • The therapeutic approaches available for drug overdose cases and drug addiction.

LECTURES	
Teaching methods	• **Lecture (systematic presentation with PowerPoint support), exemplification, discussion.**
Content	1. History of drug abuse.
	2. The situation of drug abuse in Romania and worldwide. The prevalence of consumption.
	3. The motivation of starting the drug abuse. Risk factors.

	4. Abuse and addiction - Related terminology.
	5. Classification of drugs of abuse.
	6. Medical consequences of drug abuse.Morbidity and mortality associated to drugs of abuse consumption.
	7. Social, economicaş, legal consequences of drug abuse. Drugs and crime rate increase.
	8. Opiates (forms of presentation, quality of drugs of abuse from the illicit market).
	9. Opioids (forms of presentation, quality of drugs of abuse from the illicit market).
	10. Stimulants – cocaine (forms of presentation, quality of drugs of abuse from the illicit market).
	11. Stimulants – amphetamines, cathinones (forms of presentation, quality of drugs of abuse from the illicit market).
	12. Psychodysleptics - cannabis (forms of presentation, quality of drugs of abuse from the illicit market).
	13. Psychodysleptics – synthetic cannabinoids, LSD, designer drugs, new psychoactive drugs (forms of presentation, quality of drugs of abuse from the illicit market).
	14. Therapeutic approaches in acute intoxication with drugs of abuse and in drug addictions.
Bibliography	1. Flomenbaum NE, Howland MA, Goldfrank LR, Lewis NA, Hoffman RS, Nelson LS. Goldfrank's Toxicologie Emergencies. NY The McGraw Hill, 2006. 2. G. Cicu, D. Georgescu, A. M. Moldovan Concepte de bază privind tulburările datorate consumului de substanţe, Bucureşti, Agenţia Naţională Antidrog, 2007. 3. Michel, R., Laurent, K., Henri-Jean, A. & Amine, B. Traité d'addictologie. (Lavoisier, Paris, 2016). 4. Nelson, M. E., Bryant, S. M. & Aks, S. E. Emerging drugs of abuse. Emerg. Med. Clin. North Am. 32, 1–28 (2014). 5. UKDPC. A Fresh Approach to Drugs: the final report of the UK Drug Policy Commission. (2012). Available at: http://www.ukdpc.org.uk/wp-content/uploads/a-fresh-approach-to-drugs-the-final-report-of-the-uk-drug-policy-commission.pdf. (Accessed: 26th June 2017). 6. Fogaça, M. V., Campos, A. C. & Guimarães, F. S. Neuropathology of Drug Addictions and Substance Misuse. Neuropathology of Drug Addictions and Substance Misuse (2016). doi:10.1016/B978-0-12-800213-1.00070-5. 7. EMCDDA (European Monitoring Centre for Drugs and Drug Addiction). New developments in Europe's cannabis market. 2008–2013 (2014). 8. Drugs, P. O. N. Controlling new psychoactive substances. (2012). 9. European Monitoring Centre for Drugs and Drug Addiction. European Drug Reports 2014-2020.

	10. European Monitoring Centre for Drugs and Drug Addiction. Understanding the Spice Phenomenon. Themat. Pap. 25 (2009). doi:10.2810/27063. 11. Unodc. World drug reports 2014-2020. United Nations publication 12. Raport naţional privind situaţia drogurilor 2014-2019. 13. Hofer, K. E. et al. Ketamine-like effects after recreational use of methoxetamine. Ann. Emerg. Med. 60, 97–99 (2012). 14. Peacock A, et al, New psychoactive substances: challenges for drug surveillance, control, and public health responses, Lancet, 2019 Nov 2;394(10209):1668-1684. doi: 10.1016/S0140-6736(19)32231-7.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**100%**		

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	Oral Reabilitation
Discipline	Oral Health
Cours title	**Medical Bioethics**
Responsible for lecture	**Associate Professor Maria Aluaș PhD**
Responsible for practical activity	
The formative category of the discipline	DA
Compulsory discipline	Compulsory

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
1	2	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Adequate level of understanding, conversation, speaking, and writing in English.
Requisities for lectures and practical activities	• Students will keep them off phones and other devices. During the course, talking on phone is not allowed. Students cannot leave the amphitheater to the reason of personal phone calls. • It is not allowed to eat during class sessions; consumption of food and drinks is prohibited. • Students are obliged to respect timetables; the late arrival

	to activities is prohibited, as this will disturb the working sessions.

Professional competences	• Being able to use correctly in the context of specific terminology. • Being able to frame an ethical problem in the medical context. • Identify the negative consequences that can derive from the application of an erroneous or superficial solution. • Being able to use efficient sources of information and distinguish official information other information found on the internet.
Transversal competences	• Having the ability to use the concepts learned in new contexts. • Prove to have the ability and the actual concern for a collegial communication, as well as professional. • Show concern for the teamwork, having as final result the realization of a common project. • Show concern for professional development with the permanent exercise of clinical reasoning skills. • Show constant involvement in research and specialty scientific publishing activities. • Show the ability to use electronic means to the documentation in the field of bioethics.
General objectives	• At the end of the semester, students must be able to identify ethical issues in medicine and the health system.
Specific objectives	At the end of the semester, students will be able to: • Distinguish between describe and evaluate a concrete situation and delineate the ethical issues. • Justify the ethical decisions we make in such situations. • Apply the ethical principles of reference documents of bioethics literature (Oviedo Convention (1997) and the Universal Declaration on Bioethics and Human Rights (2005)). • Problematizing the situation presented. • Assimilate the main approaches in bioethics.

LECTURES	
Teaching methods	• Exhibition of knowledge according to the proposed themes, stimulating interactivity; illustration by clinical cases; use of multimedia.
Content	1. Introductory notions: definitions, history and foundations of Bioethics.
	2. Causes and cases that raised Bioethics as new discipline in the universities curricula: Baby Doe Case (US 1982).
	3. Quality of Life: Leonard Arthur Case (UK 1983).
	4. The concept of „person": Gauvin Case (US 2010).
	5. Disability Meanings: Perruche Case (France 2005).
	6. Confidentiality and legal derogations.
	7. Truth Telling Issues.

	8. Consent in Research and Clinical Trials.
	9. Consent in Clinical Practice.
	10. Surrogate Consent.
	11. Advance Directives.
	12. Euthanasia. End of Life Decision.
	13. Organ Transplantation.
	14. Assisted Reproductive Medicine.
PRACTICAL ACTIVITIES	
Bibliography	1.Paul S. Appelbaum, Assessment of Patients' Competence to Consent to Treatment. N Engl J Med 2007;357:1834-40. 2. Aluaș M. *Ethical Issues Raised by Multiparents*. In: S. Hostiuc (Ed.) Clinical Ethics at the Crossroads of Genetic and Reproductive Technologies. Academic Press Elsevier, London, 2018, p. 81-98. 3. R. Gillon. AIDS and Medical Confidentiality. British Medical Journal (Clinical research ed.) · July 1987. 4. Jessica Wilen Berg, J.D., MPH. Medical Confidentiality and Exceptions, 2014. 5. Aluaş, Maria, *Bioetica în dezbaterea contemporană: istorie şi interpretări*, in: "Studia Universitatis Babes-Bolyai – Bioethica", LVI, 1, 2011, pp. 39-58. 6. Beauchamp, Tom, James F. Childress, (1989), *Principles of biomedical ethics*, New York, Oxford University Press. 7. Reich, W.T. (ed), (1995), *Encyclopedia of Bioethics*, New York, USA, Macmillan Library Reference. **OFFICIAL DOCUMENTS** 8. UNESCO, *Universal Declaration on Bioethics and HumanRights,* 2005. 9. Europe Council, *Convention on Human Rights and Biomedicine* Oviedo, 1997 and additional protocols.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester**
Percent of the final grade:			100%

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 Conservative Odontology
Discipline	Pedodontics
Cours title	**Oro-dental health of children and adolescents in the**

				context of general health					
Responsible for lecture				**Assoc. Prof. Dr. Alexandrina Muntean**					
Responsible for practical activity									
The formative category of the discipline				DS					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	1	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy and physiology of dento-maxillary system. Preventive dentistry-basic notions.
Requisites for lectures and practical activities	• Amphitheater with projection system.

Professional competences	• Special features of public health principles used in pediatric dentistry.
Transversal competences	• Use assimilated concepts in new contexts. • Apply theoretical notions in the practical activity.
General objectives	• Know the concepts of prevalence and prevention of oral-heatl related pathologies.
Specific objectives	• Oral health, general health. • Normal and pathological development of the dento-maxillary apparatus. • Decay prevention. • Vicious habits and parafunctions. • Health education.

LECTURES	
Teaching methods	• **Interactive lecture, PowerPoint presentations made by groups of students on assigned themes / educational projects.**
Content	1. Health-definitions, concepts.
	2. Oral and oro-dental health-definitions, concepts.
	3. Evaluation indices for oro-dental health.
	4. Childhood and adolescence-caries risk assessment.
	5. Childhood and adolescence-psycho-cognitive and collaborative peculiarities, adjuvant and limiting factors for oro-dental health.
	6. Diet-risk factor / control of odonto-periodontal diseases.
	7. Oro-dental hygiene-risk factor / control of odonto-periodontal diseases.
	8. Vicious habits and parafunctions.
	9. Indicators for monitoring oro-dental health.

	10. OHRQoL-definition, concept.
	11. OHRQoL-evaluation criteria.
	12. Interdependence between individual health and public health.
	13. The impact of oral diseases on individual health.
	14. Health education in the context of today's society.
Bibliography	1. Michaela Mesaros, Alexandrina Muntean, Medicina Dentara Pediatrica, Ed. Medicala Universitara" Iuliu Hatieganu", 2016, ISBN 978-973-693-724-8. 2. Arthur Nowak, John R. Christensen. Pediatric Dentistry: Infancy through Adolescence, 6e Hardcover 2018. 3. Mcdonald, Avery's. Dentistry for the Child and Adolescent, 10e Hardcover. 2022. 4. Amr M. Moursi Clinical Cases in Pediatric Dentistry. 2nd Edition, 2020. 5. Declan T. Millett, Peter Day. Clinical Problem Solving in Dentistry: Orthodontics and Paediatric Dentistry. 2016. 6. Koch, G., Poulsen, S., Espelid, I., Haubek, D. (Eds.). (2017). Pediatric dentistry: a clinical approach. John Wiley & Sons. 7. Soxman Ja, editor. Handbook of clinical techniques in pediatric dentistry. John Wiley & Sons, Incorporated; 2015 Feb 18.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**%**	**%**	**100%**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	2 - Functional sciences
Discipline	Fiziopatologie
Cours title	**Applied physiopathology**
Responsible for lecture	**Assist. Prof. Dr. Camelia Manuela Mîrza**
Responsible for practical activity	
The formative category of the discipline	DF
Compulsory discipline	Optional

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
2	2	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	
Requisites for lectures and practical activitis	• Mandatory presence at 70% of the courses. • Delay of students to the course will not be tolerated.

Professional competences	• To analyze the data and select the necessary tests for the diagnosis of patients with oro-maxillofacial and general disorders. • To be able to interpret the results of the evaluation tests of patients with oro-maxillofacial and general disorders. • To create the pathophysiological map of patients with oro-maxillofacial and general disorders.
Transversal competences	• To acquire the ability to use digital media for medical information. • To acquire the ability to present complex topics.
General objectives	• At the end of the semester the students will be able to correctly complete the pathophysiological map of the patients with oro-maxillofacial and general disorders.
Specific objectives	• Identification of the basic pathophysiological mechanisms of patients with oro-maxillofacial and general disorders. • Development of a plan for the evaluation of patients with oro-maxillofacial and general disorders based on the pathophysiological mechanisms. • Correct interpretation of the tests to evaluate the pathophysiological mechanisms of patients with oro-maxillofacial and general disorders.

LECTURES	
Teaching methods	• Lecture, Systematic and interactive presentation.
Content	1. Dental manifestations in respiratory diseases- part 1.
	2. Dental manifestations in respiratory diseases- part 2.
	3. Dental manifestations in cardiovascular diseases- part 1.
	4. Dental manifestations in cardiovascular diseases- part 2.
	5. Dental manifestations in digestive system diseases- part 1.
	6. Dental manifestations in digestive system diseases- part 2.
	7. Dental manifestations in hemostasis and red blood cells diseases- part 1.
	8. Dental manifestations in hemostasis and red blood cells diseases- part 2.
	9. Dental manifestations in endocrine diseases- part 1.
	10. Dental manifestations in endocrine diseases- part 2.
	11. Dental manifestations in renal diseases- part 1.
	12. Dental manifestations in renal diseases- part 2.
	13. Dental manifestations in nervous system diseases- part 1.
	14. Dental manifestations in nervous system diseases- part 2.

Bibliography	**Chen Q.et al, Case Based Oral Mucosal Diseases,** Springer, **1st ed. 2018.** **Komabayashi T., Clinical Cases in Endodontics (Clinical Cases (Dentistry),** Wiley Blackwell**, 2018.** McKenna G. et al, Clinical cases in gerodontology, Wiley-Blackwell, 2021. Karimbux N. et al Clinical cases in implant dentistry, Wiley-Blackwell, 2017. Ernberg M. et al Clinical cases in orofacial pain, Wiley-Blackwell, 2017. Moursi A.M. et al, Clinical cases in pediatric dentistry (2nd edition), Wiley-Blackwell, 2020. Karimbux N., Clinical cases in periodontics (2nd Ed), Wiley-Blackwell, 2022. Prabhu S.R., Clinical diagnosis in oral medicine: a case-based approach, Jaypee, 2019.		
Evaluation:	Written Exam	Practical Exam	Activity during the semester:
Percent of the final grade:	%	%	100 %

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				2- Conservative dentistry					
Discipline				Odontology, endodontics and oral pathology					
Cours title				**The challenges of the young doctor's adaptation to professional practice**					
Responsible for lecture				**Senior lecturer Dr. Moga Radu-Andrei**					
Responsible for practical activity									
The formative category of the discipline				DS					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	1	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary	

conditions)	
Requisites for lectures and practical activitis	

Professional competences	• Creating an overview of the healthcare system in which medical practice will take place. • To learn general information about career orientation and development. • General information on opening and managing a private practice. • General information on managing a medical business. • General information on various aspects of patient selection and interacting with them. • General information on managing a doctor-patient conflict.
Transversal competences	• Application of theoretical concepts in practical work. • Establishing interdisciplinary correlations within the fields studied.
General objectives	• Creating an overview of the healthcare system in which medical practice will take place. • To learn general information about career orientation and development. • General information on opening and managing a private practice. • General information on managing a medical business. • General information on various aspects of patient selection and interacting with them. • General information on managing a doctor-patient conflict.
Specific objectives	• Use of assimilated notions in new contexts. • Application of theoretical notions in practical work. • Establishing interdisciplinary correlations within the fields studied.

LECTURES	
Teaching methods	
Content	1. Dentistry and practice in a globalised society - trends, tendencies, opportunities and dangers.
	2. Selection of the health system in which the young doctor will practice - the advantages and disadvantages of the public system vs. private
	3. Implications of professional practice in the private vs. public - economic, legal, legislative.
	4. Professional career – directions and development opportunities.
	5. Professional practice in the private environment - employee vs. employer, advantages-disadvantages, opportunities-dangers.
	6. Basic aspects of establishing and opening a private practice - selecting the place, type, location, space.
	7. Setting up and equipping a private practice - legal, administrative, economic issues.
	8. Managing a private practice - legal, administrative, economic issues.
	9. Patient selection of a private practice - practical aspects.

	10. Promotion of the medical business - legal, administrative, economic issues.
	11. Aspects related to the interaction with patients of a private practice.
	12. The success of a medical business - opportunities or dangers?
	13. Doctor-patient conflict – causes and opportunities.
	14. Managing and resolving a doctor-patient conflict.
Bibliography	Bibliography - Books 1. **Moga R.A**., Delean A.G., Tratat de medicina si patologie orala, Ed. a 2-a, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.398, 2020, ISBN 978-973-693-966-2. 2. **Moga R.A**., Delean A.G., Traite de médecine et pathologie orale, 2-eme ed., Editura Medicală Universitară ”Iuliu Haţieganu”, pg.400, 2020, ISBN 978-973-693-965-5. 3. **Moga R.A**., Delean A.G., Tratat de medicina si patologie orala, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.287, 2018, ISBN 978-973-693-849-8. 4. **Moga R.A**., Delean A.G., Traite de medecine et pathologie orale, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.280, 2018, ISBN 978-973-693-848-1. 5. **Moga R.A.,** Mureşanu L., *Socio-deontological aspects of dental practice*, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.166, 2011. 6. **Moga R.A.,** Mureşanu L., *Linii ajutatoare in studiul aspectelor sociale ale practicii odontologice*, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.234, 2011. 7. **Moga R.A.,** Mureşanu L., *Guiding lines for the study of the social aspects of the dental practice*, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.202, 2011. 8. **Moga R.A.,** Mureşanu L., *Lignes directrices nécessaire pour l’étude des aspects sociaux de la pratique d’odontologie*, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.216, 2011. 9. **Moga R.A.,** Mureşanu L., *Aspecte socio-deontologice ale practicii odonto-stomatologice*, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.199, 2010. **Moga R.A.,** Mureşanu L., *Les aspects socio-éthiques de la pratique d’odonto-stomatologie*, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.207, 2010. Muresanu L., Aspecte sociale ale practicii odontologice, Editura Medicală Universitară ”Iuliu Haţieganu”, pg.175, 2004. **CD***:* **Moga R.A.,** Mureşanu L., *Ghid de studiu- Aspecte sociale ale practicii odontologice,* Editura Medicală Universitară ”Iuliu Haţieganu”, pg.391, 2011.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**50 %**	**%**	**50 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	II-Conservative Dentistry
Discipline	Pedodontics
Cours title	**Minimal invasive techniques in paediatric dentistry**
Responsible for lecture	**Lecturer Dr. Meda-Romana Simu**
Responsible for practical activity	
The formative category of the discipline	DA
Compulsory discipline	Optional

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
3	2	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the anatomy and physiology of dento-maxillary system.
Requisites for lectures and practical activitis	• Amphitheater with projection system.

Professional competences	• Special features of minimal invasive and non invasive techniques used in pediatric dentistry.
Transversal competences	• Use of assimilated notions in new contexts. • Application of theoretical concepts to practical activity. • Establishment of interdisciplinary correlations in the studied fields.
General objectives	• Knowledge of the concepts of minimal invasive techniques.
Specific objectives	• The use of bioactive dental materials. • Indication and use of several minim invasive techniques. • Prophylaxis concepts.

LECTURES			
Teaching methods	• Lecture, Systematic and interactive presentation.		
Content	1. Prevention of dental caries- diet control.		
	2. Prevention of dental caries - oro-dental hygiene.		
	3. Prevention of dental caries - the role of fluoride.		
	4. Specific tooth decay prophylaxis - enamel remineralisation, Casein Phosphopeptide and Amorphous Calcium Phosphate.		
	5. Specific prophylaxis of dental caries located in pit and fissures.		
	6. Conventional minimally invasive techniques for the treatment of simple superficial caries - Isolation, Cavity Preparation.		
	7. Conventional minimally invasive techniques for the treatment of simple superficial caries-Matrix systems.		
	8. Conventional minimally invasive techniques for the treatment of simple superficial caries-Restoration of coronary morphology - Stamp technique.		
	9. Biocompatible materials used in pediatric dentistry.		
	10. ART technique.		
	11. SMART technique.		
	12. HALL technique.		
	13. Silver Diamine Fluoride.		
	14. Resin Infiltration technique.		
Bibliography	1. JANE A. SOXMAN ,Handbook of Clinical Techniques in Pediatric Dentistry,Second Edition ,Wiley-Blackwell, 2022. 2. MICHAELA MESAROS, ALEXANDRINA MUNTEAN, Medicina Dentara Pediatrica, Ed. Medicala Universitara" Iuliu Hatieganu", 2016, ISBN 978-973-693-724-8. 3. ARTHUR NOWAK, JOHN R. CHRISTENSEN. Pediatric Dentistry:Infancy through Adolescence, 6e Hardcover 2018. 4. MCDONALD, AVERY'S. Dentistry for the Child and Adolescent, 10e Hardcover. 2015. 5. AMR M. MOURSI Clinical Cases in Pediatric Dentistry. 2nd Edition, 2020. 6. DECLAN T. MILLETT, PETER DAY. Clinical Problem Solving in Dentistry: Orthodontics and Paediatric Dentistry. 2016.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**%**	**%**	**100 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English

Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				3 Oral Rehabilitation					
Discipline				Oral Health					
Cours title				**Innovative methods for tissue regeneration in dentistry**					
Responsible for lecture				**Lecturer vacant 26**					
Responsible for practical activity									
The formative category of the discipline				DA					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	1	1	-	14	-	36	50	2	E

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Cervical area anatomy and physiology, Odontology, Endodontics, Prosthetics, Parodontology, Maxillofacial Surgery, Implantology, Orthodontics.
Requisities for lectures and practical activities	• Amphitheater with projection system.

Professional competences	• Designing and applying predictable and innovative dental treatment plans useful in clinical situations that involve the loss of hard or soft parts of the oral cavity. • Ability to decide the opportunity for autologous tissue regeneration in daily dental work. • A new approach in clinical cases by future dental practitioners, by developing a thinking that integrates the knowledge accumulated during lectures within the optional course. • The development of skills that will favor the improvement of individual performances, in accordance to their professional aspirations, as well as the embracing and application of new technologies in the field of regenerative dental medicine.
Transversal competences	• Integration of the notions assimilated during the lectures of regenerative dentistry in Odontology, Endodontics, Prosthetics, Parodontology, Maxillofacial Surgery, Implantology, Orthodontics. • Applying theoretical notions in practical work. • Establishment of interdisciplinary correlations within the studied domains.
General objectives	• The knowledge of the basic notions regarding the sources, the morphophysiology, the classification, the benefits brought by the application of the knowledge accumulated in the current dental practice

	of the stem cells.
Specific objectives	• Harvesting and storage of stem cells, their characterization, highlighting and exemplifying the protocols of isolation and storage, desires and perspectives in tissue engineering at the level of the cervical extremity.

LECTURES			
Teaching methods	• **Lecture, systematic, interactive presentation** • **Oral presentations, Power-Point presentations.**		
Content	1.Stem cells- morphophysiology concepts.		
	2. Oral cavity stem cells harvesting protocol.		
	3. Stem cells characterization.		
	4. Stem cells passage.		
	5. Stem cells storage.		
	6. Stem cells cultures and growth factor's implications.		
	7. Tissue engineering and matrix applications.		
	8. Oromaxillofacial structure's regeneration.		
	9. Oromaxillofacial neural structures regeneration.		
	10. Oromaxillofacial soft and striatum muscular tissue regeneration.		
	11. Oromaxillofacial vessel's regeneration.		
	12. Dental and periodontal structure's regeneration.		
	13. Oral cavity bone structure's regeneration.		
	14. Clinical case discussions.		
Bibliography	1. Stem cells 3rd Edition. Scientific facts and fiction. Christine Mummery Anja van de Stolpe Bernard Roelen Hans Clevers, 2021, Elsevier, eBook ISBN: 9780128226773. 2. Dental Stem Cells. Editors: Şahin, Fikrettin, Doğan, Ayşegül, Demirci, Selami (Eds.). 2016, Springer Editure.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**100 %**	**-**	**-**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	4
Discipline	Prosthetic Dentistry
Cours title	**Pre-prosthetic paraclinical investigations**
Responsible for lecture	**Lect. Dr. Andreea Kui**
Responsible for practical activity	

The formative category of the discipline				DA					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
4	2	**1**	**-**	**14**	**-**	**36**	**50**	**2**	**E**

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge of the morphology of the teeth and dental arches. • Knowledge of the technology needed in order to achieve single-tooth fixed prosthetic crowns (from preclinical years); knowledge of fixed partial dentures/single unit fixed prosthesis.
Requisites for lectures and practical activitis	

Professional competences	• Clinical evaluation of patients with dental crowns lesions. • Assessment of information provided by complementary examinations (especially for substitution crowns). • Knowledge of all types of single tooth fixed prosthesis: by reconstruction method, coverage and substitution method. • Acquiring general knowledge of the maxillary system which provides information needed for the design of single-tooth fixed prosthesis type indicated in the treatment plan. • Knowledge of the clinical and technical stages for the execution of a single-tooth fixed prostheses.
Transversal competences	• The use of the notions acquired in different clinical situations. • Application of the theoretical knowledge in practice. • Establish interdisciplinary correlations allowing a complete treatment of clinical cases, according to current aesthetic and functional requirements.
General objectives	• Knowledge of the para-clinical investigations available and gaining the necessary skills for indicating them in a certain situation
Specific objectives	• Knowledge of the objectives and contingencies in fixed prosthodontics. • Study of dental crowns destructions that may benefit from treatment with single-tooth fixed prosthetic crowns. • Presentation of different para-clinical investigations. • Presenting the dental surveyor and the semi-adaptable articulator. • Working with a dental surveyor in dental office. • Mounting the casts into a semi-adaptable articulator and the benefits in the context of a prosthetic restoration. • Practicing the ability of synthesis and reference documentation.

LECTURES	
Teaching methods	• Lectures, systematic oral exposure, interactive.
Content	1. Complete and complex pre-prosthetic examination of the partial edentulous patient; identification of patient's needs and expectations
	2. Dental photography.
	3. Study models, mounting models in the articulator.
	4. Using dental surveyor for model analysis.
	5. Lateral cephalometry: analysis, assessment from prosthetic perspective.
	6. Periapical, panoramic and CBCT pre-prosthetic radiological evaluation.
	7. Complex TMJ investigations: axiography, temporomandibular joint MRI.
	8. Prosthetic treatment preview methods: wax-up, mock-up, digital smile design.
	9. Dental color evaluation: colorimetry, spectrophotometry and dental shape guide.
	10. Diagnosis of carious lesions in the abutment teeth: DiagnoDent, Fiber Optic Trans Illumination.
	11. Periodontal examination in prosthetic dentistry: mobilometry, periodontal charting.
	12. Orthodontic and occlusal assesment in prosthetic dentistry: conventional and digital assessment.
	13. Preprosthetic treatments.
	14. Case presentations.
Bibliography	1. Shilligburg T.H., Hobo S., Whitsett L.D ,,Fundamentals of fixed prosthodontics" Fourth edition. Quint. Publ. Co. Chicago-Tokyo, 2012. 2. Rosenstiel S.F., Land M.F., Fujimoto J. ,,Contemporary fixed prosthodontics", Fifth edition.Mosby Co: St.Louis, 2016. 3. Essentials of Esthetic Dentistry-Smile Design integrating esthetics and function,vol.two.2016, Jonathan B. Levine DMD, Elsevier, ISBN: 9780723435556. 4. Heasman P. Master dentistry - Restorative Dentistry, Paediatric Dentistry and Othodontics. Third Edit. Churchill Livingstone Elsevier; 2012. 5. Wassell R, Nohl F. Extra-Coronal Restorations; Concepts and Clinical Application. Second. Springer International Publishing; 2019. 459 p. 6. Ritter A, Boushell L, Walter R. Sturdevant's Art and Science of Operative dentistry. Seventh. Elsevier, editor. St. Louis Missouri; 2019. 7. Ricketts D, Barlett D. Advanced Operative Dentistry. Edinburgh: Elsevier Churchill Livingstone; 2011. 8. Dubal R, Buth S. Practical prosthodontics for the dental team. BDJ Team. 2016;3(2):8–10. 9. Porter M, Adarve R. Fabrication of Provisional Restoration Using

	Direct Technique. MedEdPORTAL. 2011;7(1).	
Evaluation:	**Essay type examination and oral presentation on a given topic**	**Activity during the semester:**
Percent of the final grade:	**100%**	**100 %**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				I					
Discipline				Maxillofacial Surgery and Implantology					
Cours title				**Laser Applications in Dentistry**					
Responsible for lecture				**Vacancy post of Lecturer pos. 26**					
Responsible for practical activity									
The formative category of the discipline				DA					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	1	1	-	14	-	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge about dental anatomy and physiology of the dento-maxillary system. Knowledge about Medical Biophysics. Knowledge about local anesthesia in dentistry. Knowledge about conservative dentistry. Knowledge about endodontics. Knowledge about periodontics. Knowledge about prosthetics. Knowledge about oral surgery. Knowledge about implantology. Knowledge about esthetic dentistry.
Requisites for lectures and practical activitis	• The ability to analyze anatomo-clinical parameters in the study of clinical cases. The ability of establishing clinical diagnosis in the dentistry and oral-maxillofacial surgery.

Professional competences	• Acquiring theoretical notions for laser applications in dentistry. • Acquiring theoretical notions related to the physics of lasers and laser types indications in dentistry.
Transversal	• Utilizing the acquired notions in new contexts.

competences	• Applying theoretical notions in practical activities. • Establishing interdisciplinary correlations within the studied fields. • To have the ability to effectively communicate with the patient. • To demonstrate an interest towards professional improvement towards the constant training of analytic and synthetic thinking abilities. • To demonstrate involvement in research activities such as the elaboration of scientific articles.
General objectives	• The course offers Vth year Medical Dentistry students of the Dental Medicine Faculty the theoretical notions linked with laser applications in dentistry.
Specific objectives	• Introductory notions of physics-related principles of lasers and laser radiation. • Acquiring theoretical knowledge of the laser and oral tissues interaction. • Acquiring knowledge of laser parameters and types of laser use in dental medicine. • The acquisition of knowledge related to laser applications in various fields of dentistry. Knowledge of the effects of low-level laser energy. • Protective measures and safety of lasers.

LECTURES	
Teaching methods	• Lecture systematic, interactive exposition. Oral presentations, Power-Point presentations, video presentations or digital simulations.
Content	1. Laser definition. Principles and characteristics of laser radiation.
	2. Laser radiation parameters and the main types of lasers used in dental medicine.
	3. Interaction of laser radiation with the tissues of the oral cavity.
	4. Laser applications in conservative dentistry.
	5. Laser applications in endodontic treatment.
	6. Applications of laser in prosthetic treatment.
	7. Laser applications in periodontal treatment.
	8. Applications of laser in oral surgery.
	9. Applications of laser in oral implantology.
	10. Laser applications in orthodontics and Pediatric Dentistry.
	11. Applications of laser in aesthetic dentistry.
	12. The principles and effects of laser radiation with low levels energy. Applications of low level laser therapy (LLLT) in dentistry.
	13. Protective and safety measures in the use of laser in dentistry.
	14. Indications, contraindications and limitations of laser in dentistry.
Bibliography	1. Donald J. Coluzzi, Steven Parker. Lasers in Dentistry-Current Concepts. Springer, 2017. 2. Brugnera, Jr Aldo, Samir Namour. Laser Dentistry: Current Clinical Applications. WFLD, 2018. 3. Olivi Giovanni, Olivi Matteo. Lasers in Restorative Dentistry.

	Springer, 2015. 4. Stübinger, S.B., Klämpfl, F., Schmidt, M., Zeilhofer, H.-F. Lasers in Oral and Maxillofacial Surgery. Springer, 2020. 5. Georgios E. Romanos, Advanced Laser Surgery in Dentistry. Wiley-Blackwell, 2021. 6. Emanuele Ruga, Marco Garrone, Raffaele M. Calvi, Roberto Riversa. Manual of diode laser in dentistry and stomatology. Edra Spa 2021.

Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**%**	**%**	**100 %**

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	III
Discipline	Oral Rehabilitation
Cours title	**Oral appliances for the treatment of sleep apnea and snoring**
Responsible for lecture	**Prof. Dr. Ilea Aranka - Lecturer 26 vacancy**
Responsible for practical activity	
The formative category of the discipline	DS
Compulsory discipline	Optional

Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
5	2	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	
Requisites for lectures and practical activitis	

Professional competences	• Ability to decide the opportunity for OSA treatment in daily dental work. • A new approach in clinical cases by future dental practitioners, by developing a thinking that integrates the knowledge accumulated during lectures within the optional course.

	• The development of skills that will favor the improvement of individual performances, in accordance to their professional aspirations, as well as the embracing and application of new technologies in the field of OSA dental medicine.
Transversal competences	• Integration of the notions assimilated during the lectures of regenerative dentistry in Prosthetics, Parodontology, Maxillofacial Surgery, Orthodontics. • Applying theoretical notions in practical work. • Establishment of interdisciplinary correlations within the studied domains.
General objectives	• The knowledge of the basic notions regarding the sources, the morphophysiology, the classification, the benefits brought by the application of the knowledge accumulated in the current dental practice of the OSA.
Specific objectives	• Diagnostic and treatment plan for pacients with OSA.

LECTURES	
Teaching methods	• Lecture, systematic, interactive presentation • Oral presentations, Power-Point presentations.
Content	1. Introduction to sleep medicine.
	2. Pathophysiology of snoring and sleep apnea.
	3. Diagnosis of obstructive sleep apnea (OSA): Questionnaires, Home sleep test, Polysomnography in the sleep lab.
	4. CPAP therapy with the mask (Continuous Positive Airway Pressure).
	5. Oral appliances - mechanism of action.
	6. Types of oral appliances.
	7. International guidelines on the use of mandibular advancement splints in OSA.
	8. Clinical procedures for oral appliance therapy - step-by-step: patient history.
	9. Clinical procedures for oral appliance therapy - step-by-step: dental / periodontal/ functional / radiographic examination.
	10. Protrusive bite registration.
	11. Titration and instruction to the patient.
	12. Managing side effects and patients follow up.
	13. Interdisciplinary collaboration: dentist – sleep physician.
	14. The role of dentists/orthodontists in diagnosing sleep apnea.
Bibliography	1. Aranka Ilea, Daniela Timuș, Julian Höpken, Vlad Andrei, Anida-Maria Băbțan, Nausica Bianca Petrescu, Radu Septimiu Câmpian, Adina Bianca Boșca, Alina Simona Șovrea, Marius Negucioiu & Anca Ștefania Mesaros (2019) Oral appliance therapy in obstructive sleep apnea and snoring - systematic review and new directions of development, CRANIO®, DOI:

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<tr><td></td><td colspan="3">10.1080/08869634.2019.1673285.
2. Sigrid C. Veasey, M.D., and Ilene M. Rosen, M.D., M.S.C.E. Obstructive Sleep Apnea in Adults. N Engl J Med 2019; 380:1442-1449.
3. Ravi K Garg, Ahmed M Afifi, Catharine B Garland, Ruston Sanchez, Delora L Mount. Pediatric Obstructive Sleep Apnea: Consensus, Controversy, and Craniofacial Considerations. Plast Reconstr Surg 2017 Nov;140(5):987-997. doi: 10.1097/PRS.0000000000003752.
4. Michael Semelka, Jonathan Wilson, Ryan Floyd. Diagnosis and Treatment of Obstructive Sleep Apnea in Adults. Am Fam Physician. 2016 Sep 1;94(5):355-60.
5. Cheryl R Laratta, Najib T Ayas, Marcus Povitz, Sachin R Pendharkar. Diagnosis and treatment of obstructive sleep apnea in adults. CMAJ. 2017 Dec 4;189(48):E1481-E1488. doi: 10.1503/cmaj.170296.
6. Hong-Po Chang , Yu-Feng Chen , Je-Kang Du. Obstructive sleep apnea treatment in adults. Med Sci 26(11) 12 September 2019 https://doi.org/10.1002/kjm2.12130.
7. Himad K Khattak, Faisal Hayat, Salpy V Pamboukian, Harvey S Hahn, Brian P Schwartz, Phyllis K Stein. Obstructive Sleep Apnea in Heart Failure: Review of Prevalence, Treatment with Continuous Positive Airway Pressure, and Prognosis. Tex Heart Inst J. 2018 Jun 1;45(3):151-161. doi: 10.14503/THIJ-15-5678. eCollection 2018 Jun.
8. Jan Hedner, Ding Zou. Drug Therapy in Obstructive Sleep Apnea. Sleep Med Clin. 2018 Jun;13(2):203-217. doi: 10.1016/j.jsmc.2018.03.004.</td></tr>
<tr><td>Evaluation:</td><td>Written Exam</td><td>Practical Exam</td><td>Activity during the semester:</td></tr>
<tr><td>Percent of the final grade:</td><td>%</td><td>%</td><td>100 %</td></tr>
</table>

Institution for graduate and postgraduate studies	University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca
Faculty	Dental Medicine
Domain of study	Health
Academic degree	Dental Medicine in English
Level of course	I and II- License and masters
Qualification	Doctor of Dental Medicine
Department	IV
Discipline	Dental Propaedeutics and Esthetics
Cours title	**Tips and Tricks- Technical Management of the Dental Office**
Responsible for lecture	Associate Prof. Dr. Anca Mesaros
Responsible for practical	

activity									
The formative category of the discipline		DA							
Compulsory discipline		Optional							
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	1	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Having participates in internships in dental offices.
Requisites for lectures and practical activitis	• Notions of patient examination in dentistry.

Professional competences	• Being able to manage and cope with small technical issues that appear daily in the dental office.
Transversal competences	• Ability to use the information in a new context. • Ability to apply the theoretical knowledge on a practical basis. • Ability to establish connections between the studied subjects.
General objectives	• Understanding the way the devices from the dental office work.
Specific objectives	

LECTURES	
Teaching methods	• **Interactive PPT presentations.**
Content	1. Handpieces-description, maintenance, handling and common problems.
	2. Vacuum cleaner of the dental unit - types, efficiency, frequent problems.
	3. Irrigation (water-air spray / air-flow / physiodispenser) - types, efficiency, common problems.
	4. Pedals - functions, common problems, solutions.
	5. Compressor - power, capacity, necessary, frequent problems.
	6. Scaling device or handpiece - how to use, settings, common problems.
	7. Unit lamp, lighting sources, light curing lamps, bleaching lamps, UV lamps - how to use, settings, common problems.
	8. Autoclave - maintenance, operation, mandatory tests.
	9. Distiller - utility, operation, maintenance techniques, common problems.
	10. Ultrasonic bath - utility, operation, maintenance techniques, common problems.
	11. Microscope in the dental office - utility, maintenance, frequent problems.

	12. Sterilization and disinfection - norms, checks, registers.		
	13. Dental unit configurations for different specialties.		
	14. Workflow protocol.		
Bibliography	1. Internet Resources		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**%**	**%**	**100 %**

Institution for graduate and postgraduate studies				University of Medicine and Pharmacy "Iuliu Haţieganu" Cluj-Napoca					
Faculty				Dental Medicine					
Domain of study				Health					
Academic degree				Dental Medicine in English					
Level of course				I and II- License and masters					
Qualification				Doctor of Dental Medicine					
Department				IV					
Discipline				Dental Materials, Ergonomics					
Cours title				**How to choose dental materials for different prosthodontic cases**					
Responsible for lecture				**Vacant Lecturer 35**					
Responsible for practical activity									
The formative category of the discipline				DA					
Compulsory discipline				Optional					
Year	Sem	hours/week		hours/semester			Total	Credits	Type of Assessment
		C	LP/S	C	LP/S	SI			
6	2	1	0	14	0	36	50	2	V

C=courses; LP=practical activity; S=laboratories; SI=individual study

Pre-conditions (Preliminary conditions)	• Knowledge about the properties of dental materials. • Knowledge about the technical steps of the main types of dental prosthetic treatments.
Requisites for lectures and practical activitis	

Professional competences	• Acquisition of information regarding the steps within the protocols, which can be used to choose dental materials. • Acquisition of notions related to the selection criteria of dental materials depending on the particularities of different prosthodontic cases. • Knowledge of the aspects related to properties of dental materials that

	can guide the medical-technician team in the choice of dental materials, used in solving a case of dental prosthetics.
Transversal competences	• Use of acquired information in new contexts. • Establishing interdisciplinary correlations within the studied domains.
General objectives	• Knowledge of concepts regarding the criteria and protocols for the selection of dental materials depending on the particularities of different prosthodontic cases. • Comparative study of the advantages and disadvantages of different types of dental materials that can be used for the same stage of the dental prosthetic treatment.
Specific objectives	• Acquiring knowledge regarding the criteria that can guide the dental practitioner in the selection process of the impression materials and the materials from which the future prosthetic restoration is made from, depending on the particularities of different prosthodontic cases. • Acquisition of information related to the protocols, which can be used to choose cementation materials and materials used in the preparation of the prosthetic restoration before cementation, for patients with different types of dental prosthetic cases. • Acquiring knowledge about the criteria that can be used in the identification, by the dental practitioner, of the appropriate dental materials for prosthodontic cases depending on the type of reconstructions present on the prepared teeth. • Practicing the capacity of synthesis and bibliographic documentation.

LECTURES	
Teaching methods	• Interactive, systematic lectures. • Oral presentation. • Powerpoint presentation.
Content	1. Recommended criteria and protocols for choosing materials for the antagonist arch impression. Clinical case presentation and interactive material selection exercise.
	2. Recommended criteria and protocols for choosing materials for the bite registration. Clinical case presentation and interactive material selection exercise.
	3. Recommended criteria and protocols for choosing materials for the working arch impression. Clinical case presentation and interactive material selection exercise.
	4. Recommended criteria and protocols for choosing the disinfection solutions for dental impressions. Case presentation and interactive material selection exercise.
	5. Recommended criteria and protocols for choosing non-noble and noble dental alloys. Case presentation and interactive material selection exercise.
	6. Recommended criteria and protocols for choosing resin-based composites used in the dental laboratory. Case presentation and

	interactive material selection exercise.		
	7. Recommended criteria and protocols for choosing ceramic systems for metal-ceramic restorations. Case presentation and interactive material selection exercise.		
	8. Recommended criteria and protocols for choosing ceramic systems for all-ceramic restorations. Case presentation and interactive material selection exercise.		
	9. Recommended criteria and protocols for choosing the dental cements for luting prosthetic restorations using conventional techniques. Case presentation and interactive material selection exercise.		
	10. Recommended criteria and protocols for choosing the dental cement for luting prosthetic restorations using adhesive techniques. Case presentation and interactive material selection exercise.		
	11. Recommended criteria and protocols for choosing light-curing adhesive systems for luting procedures. Case presentation and interactive material selection exercise.		
	12. Recommended criteria and protocols for choosing dual-curing adhesive systems for luting procedures. Case presentation and interactive material selection exercise.		
	13. Recommended criteria and protocols for choosing resin-based composites used for dental abutment teeth reconstruction. Case presentation and interactive material selection exercise.		
	14. Recommended criteria and protocols for the choice of fiber-reinforced resin-based composites used for dental abutment teeth reconstruction. Case presentation and interactive material selection exercise.		
Bibliography	1. Andre V. Ritter. Sturdevant's Art and Science of Operative Dentistry, 7th Edition, 2018. 2. Chiayi Shen, H. Ralph Rawls, Josephine F. Esquivel-Upshaw. Phillips' Science of Dental Materials, 13th Edition, ed.Elsevier Mosby, 2021. 3. Ronald L. Sakaguchi, John M. Powers. Craig's restorative dental materials - 14th ed.Elsevier Mosby, 2018. 4. W. Stephen Eakle, Kimberly G. Bastin. Dental Materials, Clinical Applications for Dental Assistants and Dental Hygienists, 4th Edition. Ed. Elsevier, 2020. 5. Nicola C şi colab. – Materiale dentare – Consideraţii clinice şi tehnologice. Ed. Casa Cărţii de Ştiinţă, Cluj-Napoca, 2009.		
Evaluation:	**Written Exam**	**Practical Exam**	**Activity during the semester:**
Percent of the final grade:	**%**	**%**	**100 %**

WRITING THE LICENCE THESIS is performed according to the guide published on the univesity's website. This guide is available on the following link: http://www.umfcluj.ro/educatie-med-ro/studenti-mg-ro/licenta-med-ro.