



**State University of Medicine and Pharmacy  
“N.Testemițanu”  
Faculty of Stomatology**

**DentEd School Visit**  
24 - 28 November 2001

**FINAL REPORT**



**Chișinău/Republic of Moldova**

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## Introductory Visitors Comments<sup>[1]</sup>

DentEd Visits are visits from peers to comment on, to express their collective views and to act as a mirror for the responses from the staff of the visited faculties to a process of self-assessment. **IT IS NEITHER AN INSPECTION NOR AN ACCREDITATION TOWARDS EUROPEAN NORMS.**

Therefore, the Main Objectives of DentEd are

- to establish an European Network in dental education,
- to stimulate convergence towards higher standards,
- to better understand of each other,
- to agree on common competences in Primary Oral Health Care,
- to promote evidence based teaching/treatment,
- to share peer reviewed interactive programs,
- to share innovations and best practices,
- to establish a program of peer visits to EU and other interested dental schools.

The purpose of each visit is:

- to understand each others systems of education,
- to identify and share innovations and best practices,
- to promote greater exchange of ideas, staff and students,
- to promote the pooling of intellectual resources in European dentistry,
- to break down barriers and assist each other.

**IT IS NOT** to impose a single educational approach or a single dental curriculum.

The result of each visit is a Final Report, the Self Report of the institution complemented by the Visitors' comments. The school may choose to release some or all of the Report for others in Europe to see but that is a decision for the school.

From the Final Report it is expected that the school will pay special attention to its Educational Approach in future, i.e.

- its educational methods
- its empowerment of student learning
- its application of the Behavioral Sciences
- its assessment methods (as validity and relevance, consistency and reliability)
- its acquisition of Clinical Competences (according to EU documents)
- its Continuous Quality Improvement (CQI)

Visitors' comments on the Self-Report of the Faculty of Stomatology, State University of Medicine and Pharmacy "N.Testemițanu" in Chișinău/Republic of Moldova are clarified and developed at the end of each section.

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<sup>[1]</sup> Also see Section 23 "Executive Summary"

First of all the Visitors wish to thank the Faculty for their warm reception and compliment those who put together this document in preparation for the DentEd visit. The President of the State University of Medicine and Pharmacy “N.Testemițanu”, the Dean of the Faculty of Stomatology and all faculty members and students made every possible effort to put all the information the Visitors required at their disposal and every effort was made to show them things as they are without exaggeration or omission.

All staff was keen to achieve the highest standards and there was a strong sense of wishing to do what is best for the Faculty, its patients and its students. *The Visitors commended the notion of identifying educational objectives and measurable outcomes.*

Although the presentation of documents was at the beginning somewhat incomplete, during the visit it could be completed in such a way that the Visitors have had the pleasure and privilege with which to work. Particularly the document “acreditarea europeana” which was presented not before the end of the visit – as the Preliminary Final Report was already produced and presented at 28 November – had high information value. However, with the consequence that the Preliminary Final Report had to be compared with these belated data and revisions had to be carried out in a very time consuming manner after the visit. The Visitors apologize for the inherent delay.

# **Section 1 Introduction and General Description**

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## **1.1 School Data**

The specialty 1702 ‘Stomatology’ is solicited by the graduates from schools, medical colleges from different countries, such as Romania, Bulgaria, Syria, Jordan, Israel, Russia and others.

From the early beginning of lecturing in 1994 the number of students, matriculated at the Faculty of Stomatology in the 1<sup>st</sup> academic year, which are financed by the state budget is 25, and the number of those, who study on a contract basis (paying a fee), varies because it depends on the number of applications and the results of the matriculation examinations. Beyond that – for this is an additional budget available – Romanian citizens are matriculated on the base of the Collaboration Protocol between Romania and the Republic of Moldova.

The faculty is funded by allocations from the state budget for 47% of its total budget, by proper income for 50%, by grants for 2% and by sponsors for 1%.

The frequency of the students, financed from the state budget and those on a contract base in the 2000 – 2001 academic year is shown in Table I.

Year of study	State budget financed		Per contract financed		Total
	Students	%	Students	%	
I	32*	30.2	74	69.8	106
II	37*	37.8	61	62.2	98
III	31*	36.1	55	64.0	86
IV	36*	42.9	48	57.1	84
V	28*	41.2	40	58.8	68
Total	164*	37.1	278	62.6	442

**Table I:** Frequency of students in the academic year 2000 – 2001

\*) including the budgetary students from Romania.

The study of stomatology – Specialty 1702 “Stomatology” – is structured in semesters, the spring and the autumn semester. Each semester lasts 17 weeks.

Lecturing and training is scheduled on a day time basis, Monday through Saturday from 8:00 a.m. till 1:00 p.m. From the 3<sup>rd</sup> semester on, students are divided in small groups of 6 - 7 persons each.

The program ends after 10 semester with the qualification as and the diploma of “doctor-stomatologist”.

The relationship between the number of students matriculated in the 1<sup>st</sup> year and the number of students promoted at the final examination (matriculation / promotion) is shown in Table II.

Cohort 1 <sup>st</sup> Semester – Cohort last Semester	Matriculation /Promotion	
	n	%
1991 – 1996	167/151	90.4
1992 – 1997	87/ 96	110.3*
1993 – 1998	72/ 69	95.8
1994 – 1999	44/ 53	120.5*
1995 – 2000	55/ 50	90.9

Table II: Matriculation /promotion relationship

\*) The total exceeds 100% because some students changed from the Chişinău Faculty of Medicine and Pharmacy to various faculties of stomatology in Russia, Ukraina and Romania.

The total available space for educational and training purposes, as area of halls, offices, laboratories etc., amounts 1,516.55 m<sup>2</sup>. The faculty has 105 dental chairs, situated in 27 clinical offices with an area of more than 300 m<sup>2</sup>, which allows each student to work on patients at practical lessons simultaneously. An average space of 4.4 m<sup>2</sup> for each student is available.

The departments with a stomatological-surgical profile have three stationary departments with 95 beds, which is 5 - 6 beds for each student.

A dental technique laboratory, a physiotherapy room and an X-ray office are units of general support.

Each department is equipped with graphoprojectors, video-players, computers, slide projectors etc.

Practical training is executed at the university clinical centres and those of the municipal and the district policlinics. According to the Collaboration Protocol the clinical centres of the Faculty of Stomatology of the Medical and Pharmaceutical University “Gr.T.Popa” in Iasi/Romania is involved in the training program.

## 1.2 Background

Initially the University of Medicine was established in St. Petersburg 120 years ago. During World War II it was evacuated to Kislovodsk and from there in 1945 transferred with professors and students of general medicine to Chişinău, Moldova. In Chişinău the University of Medicine developed other faculties such as the Faculty of Paediatrics, Stomatology, Sanitation and Hygiene, Pharmaceutics, the faculties of postgraduate training and professional development courses for physicians.

Specialty N 1702 „Stomatology” was founded at 1 September 1959, under order Nr. 122 of the Ministry of Public Health of the Moldavian Socialist Soviet Republic, from 8 June 1959.



In 1959/1960, the first year of study, the first cohort of 50 students from the native youth entered the faculty. In 1960, as five stomatologists were licensed, the faculty started training its didactic staff.

The three basic chairs: Therapeutic Stomatology, Oro-maxillo-facial Surgery and Orthopaedic Stomatology had been established at 1 June 1960. From the beginning, these chairs were related to the Republican Clinical Hospital and its policlinics, to the Chişinău Stomatological Hospital, and – from 1966 on – to the Republican Stomatological Policlinics which was founded in the same year. Since 1979, the Chair of Therapeutical Stomatology and the Chair of Orthodontics are based in the Stomatological Hospital of the State University of Medicine and Pharmacy “N.Testemiţanu”, Faculty of Stomatology. Since 1990 the Chair of Oro-maxillo-facial Surgery is located in the Republican Stomatological Policlinics, in the Ambulance Clinical Hospital and in Policlinic # 8 from the City of Chişinău. The fourth basic stomatological chair, the Chair of Paediatric Stomatology, had been established 1986 and is located in the Clinical Hospital “E.Cotaşa”, as well as in the Children Municipal Stomatological Policlinic Chişinău.

With founding the Faculty of Stomatology in Chişinău the basis for the National School of Stomatology was realized.

Within 41 years of its activity the faculty there were 37 graduations of stomatologists.

The Scientific Council of the Faculty of Stomatology is accountable to the Senate of the University of Medicine and Pharmacy. Its members are elected by secret vote every five years in conformity with the legislation of the University. The dean is the chairperson of the Council. The faculty is also accountable simultaneously to the Ministry of Public Health and the Ministry of Education and Science.

The Scientific Counsel elects the teaching staff of the departments by secret voting for a period of five years after announces the results in the local press. Candidates who participate in the competition are discussed on the meetings of the department with a detailed report of teaching, methodical research, clinical and other qualities. The staff of the department where a lecturer will work nominates him or her for discussion and election by secret vote by the Scientific Counsel of the Faculty.

The Faculty of Stomatology functions according to the Rules of the University of Medicine and State Dental Clinics of Chişinău, the University Dental Clinic of the Republic of Moldova, the Republican Clinical Hospital, the Children’s Republican Hospital „E.Cotaşa”, the Emergency Hospital of Chişinău and other medical institutions of the Republic of Moldova, which are called Clinical Bases under the order of the Ministry of Public Health.

### **1.3 The Primary Functions of the Institution**

The primary functions of the university are:

- Clinical training and education of the undergraduate dental students (concept of training and standards defined by the Ministry of Public Health and Accreditation Commission of the Council of Ministers of the Republic of Moldova);
- Training and education of dental nurses, dental technicians and dental hygienists;
- Continuing education and refreshing courses for dentists every five years;
- Training of consultants, doctors of medicine, assistants, assistant professors and professors;
- Research;
- Patient service is carried out by students of the fourth and fifth years and by residents under the guidance of professors;
- Training and education of foreign students

#### **Visitors Comments**

The Faculty of Stomatology is part of the University of Medicine and Pharmacy “N.Testemițanu” and evolved as a separate faculty from the Medical School. This explains why the dental curriculum is mainly based on the disciplines for medical education, however compressed, and the dental disciplines added to the program.

The faculty has a structure which meets the concept of an excellent stomatological curriculum at best. This concept is “opposite” to the odontological concept.

The Visitors would encourage a more clearly defined integrated Mission Statement as the available “Instruirea Stomatologilor în Republica Moldova” (the “Study Guide”) agreed by all departments in respect of the Faculty of Stomatology’s three primary and inter-related functions: (i) education, (ii) patient care and (iii) research.

The Visitors recommend a group that should include young staff and students – the Faculty has enormous personnel and intellectual resources –, to report to the Dean on a clear Mission Statement. There should be co-ownership between the Ministry of Public Health, the Ministry of Education and Science, and the University of Medicine and Pharmacy “N.Testemițanu” in Chișinău, because a Faculty of Stomatology is a unique teaching institution in any University, even in a specialized university as the State University of Medicine and Pharmacy. The Mission Statement should embrace influences from colleagues and society. A Mission Statement will have serious budgetary implications and these must be openly addressed by all stakeholders.

The Visitors suggest the Faculty of Stomatology should refer to other European models in setting out a brief and succinct Mission Statement that should be agreed on consensus and supported by all.

In the context of this Mission Statement there will be clearly defined Aims and Objectives which should not alone be stated, they should be achieved and also transparently measured in respect of outcome.

It is clear that resource limitations require a careful consideration as to what can actually be achieved in each of these primary functions and it would be of considerable benefit for all that once agreement is reached that all should appreciate and share responsibility for upholding the Mission Statement.

## **1.4 Curriculum**

### **1.4.1 Introduction**

Within the last two decades there have been four curricular revisions. The most radical revision was made and introduced in practice three years ago (1997).

The curriculum takes into account the concept of constant training of stomatologists in conformity with the Standard of Education and Training approved by the Board of the Ministry of Public Health of the Republic of Moldova in 2000.

The curriculum stipulates the basic clinical training of stomatologists with the accent of importing practical skills on the basis of the acquired theoretical knowledge of prevention and treatment of diseases.

An overview of the curricula offered is shown in the flow chart below.

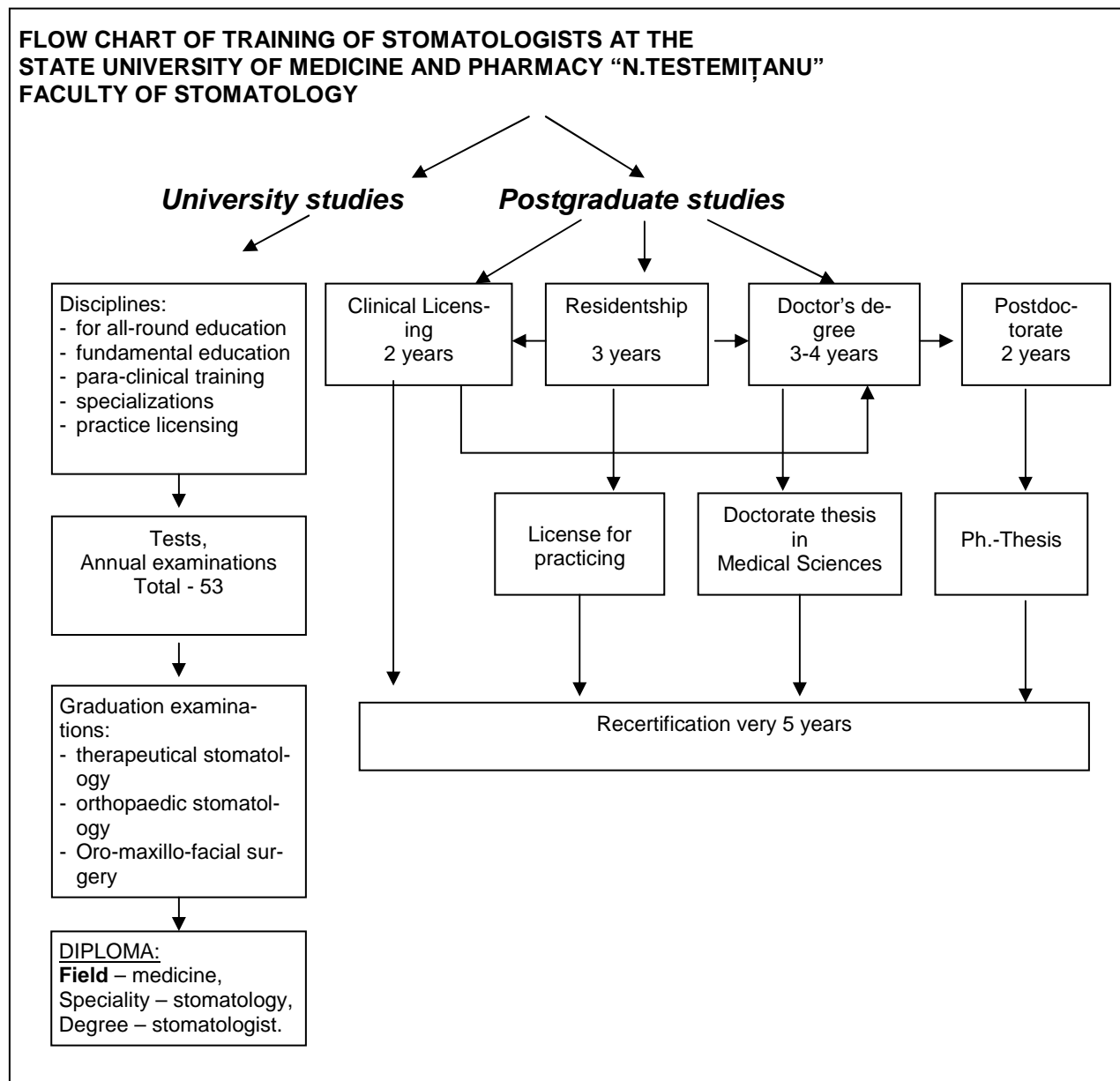
The practice of stomatology, as a branch of general medicine, includes the execution of tasks assuring public health and maintaining oral health. According to this, the stomatologist's role (i.e. the role of the "oral physician") in society and in the public health system is determined by the World Health Organisation (WHO) and the Ministry of Public Health of the Republic of Moldova. Its profile is defined by the Ministry of Public Health, the Doctors League and the Association of Stomatologists in Moldova.

The current concept outlines the strategy of continuous training of medical specialists in the field of stomatology. Its main purpose is to promote undergraduate and postgraduate stomatological training at the State University of Medicine and Pharmacy "N.Testemițanu" to the level of modern requirements determined by the Educational Standard. The stomatologist as oral physician gives medical stomatological assistance in policlinical (cabinet) or hospital conditions. The stomatologist's main goal is to promote measures of prophylaxis, diagnosis and treatment of stomatological affectations, and also to contribute to the increase of public health. This goal is reached through the following functions:

- organization of stomatological medical assistance;
- prophylaxis of stomatological affectations;
- placing of patients with stomatological affectations in health units;

- reclaiming the oral cavity of children and adults;
- stomatological sanitary training;
- discovering stomatological affectations;
- treatment of stomatological affectations of children and adults with the help of modern technologies;
- conservative treatment;
- prosthetic treatment;
- orthodontic treatment;
- complex treatment;
- treatment of maxillo-facial traumatism;
- usage of modern stomatological materials (composites, ionomeres, photopolymers, ceramics);
- implementation of the latest successes in the stomatological fields into curative activity;
- usage of modern technologies in the process of diagnosis (panoramical diagnosis, tomography, etc.) and also in the curative process (modern stomatological installations, equipment, etc.);
- analysis of the effect of the measures of prophylaxis and stomatological treatment;
- providing urgent stomatological assistance;
- performing scientific work in the field of stomatology;
- pedagogical activity within the framework of educational institutions.

Taking into consideration the present concept, the Department for Study Affairs, the Dean's Office and the staff worked out the curriculum and a syllabus for the subjects that embody the didactical methods to qualify the undergraduate and postgraduate training of future specialists.



## 1.4.2 The Curriculum

### 1.4.2.1 Introduction

The Curriculum of the Faculty of Stomatology is based explicitly on

- the Law for Education of the Republic of Moldova,
- the Specialization Catalogue of Higher Educational Training in Moldova,
- normative documents of the Ministry of Education and Science, the Ministry of Public Health of the Republic of Moldova, the State University of Medicine and Pharmacy "N.Testemițanu" and
- in accordance with the requirements and accomplishments of medical sciences,

aiming at the training of a specialist with higher educational degree in the field of Stomatology, to be recognized not only in Moldova but also abroad. The present curriculum was confirmed by the Central Methodical Council of the university on March 19, 1998 (report # 4).

#### **1.4.2.2 General aims**

General aims of the Faculty of Stomatology for the education and training of its stomatologists are:

- To train specialists with a high level of medical education;
- To provide specialists with a proper scientific foundation in accordance with ethical, moral and deontological requirements;
- To provide training in the environment of research activity in medical field with the purpose of formation of scientific and teaching staff;
- To develop international relations with medical universities and organizations;
- To realize these purposes the University works in conformity with the curriculum, which includes general and fundamental subjects mainly para-clinical, and specialty subjects.

#### **1.4.2.3 The Curriculum**

The university provides a medical education at a high level of quality in conformity with plans and curricula which widely includes the most actual state of medical science that ensure precise constant training involving three levels: graduate, postgraduate programs, professional development:

- First level, the university training (graduate) in specialty „stomatology”.
- Second level, the postgraduate training of a stomatologist in the formats: residency, magistracy, clinical internship, post graduation (degree of Doctor of Medicine), post-graduate program (degree of Ph.D.).
- Third level, professional development of stomatologists is realized through general professional development courses, thematic professional development and professional development courses for teaching staff. In conformity with the Law on Education of the Republic of Moldova academic year starts on September 1<sup>st</sup> and lasts for 34 weeks, beginning September 1<sup>st</sup>, ending between the 1<sup>st</sup> and 8<sup>th</sup> of June. According to the curriculum the first semester is followed by the winter session lasting 2-3 weeks, then winter vacation (including Christmas holidays) lasting 3-8 weeks. University works 6 days a week, which is 35-36 hours in average.

The volume of compulsory hours makes 36 hours a week for all years of the faculty. Examination sessions and vacation take place simultaneously for all students. The teaching staff has vacation in July and August.

The five-year curriculum is organised in five blocks of subjects with the total number of 6,363 academic hours:

Block 1 – General, socio-humanitarian disciplines (G): 9 disciplines, 689 hours (10.8%),

Block 2 – Fundamental (F): 13 disciplines, 1033 hours (16.2%),

- Block 3 – Para-clinical disciplines (P): 11 disciplines, 767 hours (12.1%),
- Block 4 – Specialty disciplines (S): 29 disciplines, 3874 hours (60.9%)
- Block 5 – Clinical probation (practical internship), 2309 hours (obligatory).

All disciplines are divided into a) 62 core disciplines and 1 facultative discipline (physical training, sports). Electives are not offered. The ratio between practical and theoretical hours of fundamental disciplines is 1:1, within specialty courses 3:1.

According to the curriculum the students have the extra-clinic probation (the internship), which is done at various state institutions, approved by the Government of the Republic of Moldova № 18 from 15.01.1997 and by the Order of the Ministry of Health, which is issued every year.

Internship is done in the areas:

- Medical assistance: 4 weeks (144 hours) – after the 2<sup>nd</sup> year of study;
- Therapeutic stomatology: 4 weeks (144 hours) – after 3<sup>rd</sup> and 4<sup>th</sup> years of study;
- Prosthetic stomatology: 4 weeks (144 hours) – after 3<sup>rd</sup> and 4<sup>th</sup> years of study;
- Oro-maxillo-facial surgery: 3 weeks (108 hours) – in the middle of 4<sup>th</sup> year of study;
- Paediatric stomatology: 3 weeks (108 hours) – in the middle of the 5<sup>th</sup> year of study.

Within a 5-year period of study 10.2% is internship and 26.1% clinical work, which is 36,9% of the total number of studying hours.

Stomatology disciplines are scheduled to be studied starting with the 1<sup>st</sup> year. Semiology (propaedeutics) of stomatology is studied in the first 2 years, clinical stomatology starts with the 3<sup>rd</sup> year. From the total number of hours in the curriculum scheduled for the specialities – 6,363 hours – 53% include clinical training. Every discipline has formulated its objectives according to the curriculum, mission and objectives of the faculty. The objectives of each discipline are outlined in a “syllabus”.

The university is providing for the international students additional 68 hours of language course during the 1<sup>st</sup> year of study to master the state language.

During the 5-year period students take 28 examinations, 25 credit tests with grades and 28 credit tests classified pass/fail. The course of 5-year study is completed by state examinations in three stages:

- I. Practical skills (work with a patient),
- II. Written multiple choice test,
- III. Oral examination.

*The studies are selectively finished with the Graduation Paper. The graduate passes the final examinations for the disciplines that are not covered in the paper in the required way.*

#### **1.4.2.4 Quality management**

To prove whether there is concordance between faculty's mission and objectives, curriculum's objectives and disciplines' objectives a quality management system has been introduced since 1960. This system gives information about the accomplishment of the final goal of the educational program, i.e. the preparation of stomatologists, able to operationalize the National Concept to Improve Public's Health in Moldova.

For this purpose the curriculum is analyzed on an annual base. The results have to be approved at the departmental meetings, by the Faculty Methodical Commission, the Central Methodical Council, the University Senate and the Ministry of Public Health. If needed, the curricula are revised, supplemented with new materials or restructured according to new educational methods (mostly taken from international literary sources).

#### **1.4.3 Strengths**

- Integrated curricula vertically and horizontally agreed by all;
- The curriculum is based on problem-based self directed learning;
- Development of problem-solving skill of a student;
- Development of clinical competence in students;
- Transparency;
- The curricula are continuously revised, discussed and renewed;
- The curricula involve assessment by means of anonymous questioning;
- Shortcomings of curriculum are recognized and corrected;
- The curricula are made up taking into account materials of international medical cooperation.

#### **1.4.4 Weaknesses**

- Lack of interdisciplinary integration;
- Difficulty of provision each class with patients of subject;
- Methods of assessment are in the process of improvement;
- Possibilities of purchasing of new equipment, instruments and materials are reduced;
- Uncertainty in social problems causes anxiety in students.

#### **1.4.5 Innovations**

- Patient centred student orientated training;
- Development of problem-solving skills develop clinical mentality in students;
- Clinical skill testing;
- Student assessment of staff performance;
- Introduction of new research of the staff and students into the process of training;
- Emphasis of final result in training dentists;
- Priority of preventive measures and primary care.

### **Visitors Comments**

Visitors comment in respect of the different components of the curriculum will be found at the end of each subject area.



Visitors found that the Faculty is fierce to change its Curriculum towards European Standards: A central recommendation therefore is the identification of clearly defined outcome expectations. In other words, what is a student expected to be able to do on completion of his or her training. There seemed to be some ambiguity as to dental competences and the Visitors suggest that particular attention might be given to the Clinical Competences set out as guidelines by the European Union's Advisory Committee on the Training of Dental Practitioners. This will be found on the DentEd web site under RESOURCES at [www.dented.org](http://www.dented.org).

In general the Visitors believed that there was too much work and time in the laboratories. There was a significant need to strengthen the awareness of the importance of integrated holistic patient care. This was undermined by the heavily segregated departmental approach.

The Visitors would encourage the maximum participation and protection of students in giving feedback from their learning process and to have their input on curriculum planning and implementation. Student feedback is a critical component of a modern educational approach and the Visitors recommend the establishment of an effective decision-making Curriculum Committee that would not be undermined by difficult decision making structures.

This committee should report to the Dean and have significant influence. Visitors suggest that it should include all levels of teachers. One of the functions of this Curriculum Committee would be to integrate the curriculum in order to change the present divergent departmental independent curriculum planning.

There must be greater emphasis on student responsibility and less on examination and assessment. Assessments should be reduced but their validity, reliability and consistency improved.

*The structure of such a Curriculum Committee will include:*

- Faculty Members at all levels with emphasis on the future
- Students
- Administration

*The responsibilities of the Curriculum Committee should include:*

- Review of curriculum
- Content
- Sequencing
- Scheduling
- Quality management
- Content and assessment methods

There is a serious need to avoid excessive detail and especially duplication which is inevitable in the present approach. This problem is by no means unique to the Faculty of Stomatology in Chişinău.

Whilst the Visitors found that the Faculty of Stomatology is focusing on changing the traditional teaching concept to implementation of the principles of problem-based learn-

ing (pbl). They could conclude also that staff is not familiar with the basic cognitive principles underlying pbl. Therefore the Visitors urge caution in looking at pbl as a panacea and that very structured staff development must be applied before undertaking such a fundamental change in education, particularly if medical educators are not prepared to participate in these developments. Perhaps a period of promoting *case based*-education and *problem-orientated* learning might be a wise choice in the present circumstances. The Visitors also place emphasis on the implications for assessment methods in a pbl curriculum.

Changes should inevitably result in a reduction in time in the basic, biological and medical sciences although these are critical elements of a modern dental school's program.

The Visitors suggest that the Curriculum Committee with the strong endorsement of the Dean and Heads of Department should develop successively to a case-based and later problem-oriented approach with emphasis on fundamental essential principles and elimination of detail that is detrimental to the learning process. The knowledge base of the medical sciences doubles every two years so it is impossible to teach everything to students. Instead it would be much better if students were taught how to keep abreast of new discoveries with special reference to the use of information and communication technology.

The present curriculum is mainly structured around subject matters and disciplines. This means that each department can formulate the teaching / learning objectives independently and make changes as they wish, as long as it remains within the overall frame of the curriculum. The great number of disciplines involved and this discipline-structured approach is limiting the possibilities for change and for an integrated structuring and managing of the overall curriculum.

The Visitors recommend that the Curriculum Committee should look at the curriculum from three different angles for further development:

- Educational
- Content
- Administrational / organisational

### ***Educational***

Educational science demonstrates various successful models for improvement. Examples of these models are:

- Student-centred instead of teacher-centred.
- Problem-orientated or at least task-based learning (pbl) with limited contact hours instead of factual learning.
- Providing variety in learning modes and materials.
- Implementation of a quality management system.
- Frequent feedback (i.e. formative assessment).
- Self evaluation (i.e. formative assessment).

### **Content**

The following critical areas in the curriculum need to be considered for further improvement in respect of the curriculum content:

- The amount of technical lab work to be done by students especially in the area of prosthetic dentistry seems excessive;
- Scientific training should be strengthened in the curriculum (e.g. a course on "scientific writing and critical thinking" and include a learning objective "to participate in a research project");
- Integration within the curriculum at two levels
- Medical and clinical dental subjects
- Basic science and dental subjects
- Earlier start with pre-clinical and clinical dental subjects;
- Strive more towards a problem-oriented curriculum (this might lead to a reduction of the total time and detail the basic sciences and medical subjects but will promote an approach to life-long learning at an early stage. This becomes increasingly important as the knowledge base in the health sciences is said to double every two years).

### **Organisation**

There are some problems for students with the various locations of education in a busy city. There are periods of significant time-wasting in the daily schedules that should be addressed. The separate approach of specialist areas may be contributing to these difficulties, and there may be possibilities found in reducing student travel in curricular reform despite the difficult physical factors that impinge.

On top of these local matters there are the usual sequencing and integration of the subject material. The Visitors believe that there is much to be done in this area even in the present difficult circumstances.

*More time for student reflection and recreation is seriously needed in this School in order to promote the traditions of third level education and promote critical thinkers rather than passive learners.*

**In summary:** The concept of teaching and learning at the Faculty of Stomatology is teacher-centred in all disciplines. There is certain awareness that problem-based learning could have some advantages for education.

Visitors suggest not to introducing problem-based learning until its cognitive background is fully understood. Starting with case-based learning and a successively change towards problem-oriented learning parallel to adequate training of staff towards the concept of student-centred learning might be a valuable suggestion.

The "Archives of Patient Cases" and the concept of Student's Role Playing are excellent starting points for future development.

## **Section 2 Facilities**

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### **2.1 Clinical facilities**

#### **2.1.1 Introduction**

There are three main clinics at the main facility of the Faculty of Stomatology (Therapeutic Stomatology, Orthopaedic Stomatology and Orthodontics) for 105 chairs provided for gaining practical experience for students during clinical classes. Dental departments with a surgical profile have three in-patient departments (Oro-maxillo-facial Surgery, Orthodontics, and Paedodontics as well) with 95 beds in total that provide each student with five to six patients. Other clinical bases of surgical profile are located in general hospitals. Within all clinical hospitals there are emergency rooms and departments where students render first aid to dental patients. There are four teaching laboratories with 48 manikins.

#### **2.1.2 Strengths**

Clinical bases of the faculty are modern and located in general hospitals that allows to carry out interdisciplinary training working with patients with various complicated diseases. The student-staff ratio varies from 6:1 to 5:1.

#### **2.1.3 Weaknesses**

Facilities have become obsolete. The number of computers is insufficient.

#### **2.1.4 Innovations**

The dental clinics have been designed to provide students with integrated interdisciplinary training. Students and residents are allowed both to examine and to treat adults and children. Private well equipped clinics and offices are starting to be used for dental clinical training.

### **Visitors Comments**

Visitors compliment staff for their loyalty and enthusiasm to keep the Faculty of Stomatology running as optimal as possible. Co-operation from the University Dental Clinic with the University Dental Hospital and the other extramural facilities to recruit patients is seen as an important measure to expose students to as much as dental and related diseases as possible.

Visitors believe that the facilities of the Faculty are principally adequate. Nevertheless, the main clinical facility is characterized by a central area housing 3 clinical departments with a total of 105 treatment units of various brands for out-patient treatment by undergraduate students and staff as well, situated in a labyrinth of unexpected "corners" without any recognizable concept:

- There is no “Central Indication Polyclinic” where patients can arrive, receive emergency treatment and a preliminary indication before being proved for student or explicit need for professional treatment and forwarded to one of the specialist departments.
- There is no “Central Patient Administration” where can be indicated whether a patient is already assigned to the one or another department, to the one or the other student or professional dentist. Neither there is any Patient Record Tracing System or clear visible receptions to receive patients as their initial contact with the departments.
- There is a mixed-up of clinical facilities for under- and postgraduate training and offices – mostly with “integrated” treatment units – for staff as well.

The Visitors see a substantial lack of space to establishing clear organisational structures, to directing patients towards their departments, to attracting students towards efficient establishment of their planned treatment procedures and staff towards clear supervision tasks.

Due to a substantial lack, many students do not receive any education on manikins.

The concept of treatment of approx. all dental units is outdated: Modern ergonomic four-handed treatment is impossible. No units suited for left-handed treatment have been seen. Besides that, cross-infection avoiding measures cannot be established explicitly. Patient privacy is ignored categorically. All the water cooling and sucking devices of all units were not working.

The space within the building is seriously inadequate and this is referred throughout the self-assessment document. The visiting team did note that much of the equipment was more than twenty to thirty years old. They noted that each clinical unit had about 6 m<sup>2</sup> while most would suggest that the minimum is 10 m<sup>2</sup>. Suggestions that these clinics should be refurbished may be unwise and economically without foundation.

The present budget is seriously deficient to provide necessary resources for the replacement of existing equipment and the implementation of new technology, especially in the area of ICT. It is important that adequate resources must be identified that will allow for significant purchases of new equipment in order to maintain and improve the quality of education, patient services and research activities.

The Visitors unanimously advocate a major reconsideration of physical developments. Considering the narrowing circumstances of the real estate Visitors advice serious consideration of moving to an adequate property rather than restoring and refurbishment. The refurbishment of the existing building in their experience will prove more costly and ultimately of little benefit in addressing serious housing deficiencies. The Visitors are conscious of the economic difficulties and would not wish to impose on strategic development plans. *Therefore they congratulate the Faculty that actually decisions were taken to move to a total new facility on short term.*

Nevertheless, the Visitors team thinks that it is important that careful planning is a first step. This process should include a thorough analysis of the present and the future

needs. Financial plans should include long-term replacement budgeting and realistic assessment of what will be required to maintain minimum standards at least in an EU context.

With this perspective, Visitors believe that the Faculty is in a very good condition to become a Reference centre for other CIS and EU Associate Countries in the future. Besides that there is great logic in having a single strong Faculty of Stomatology in Moldova – a centre of international excellence.

## **2.2 Teaching facilities**

### **2.2.1 Introduction**

The Faculty of Stomatology has access to all of the teaching, recreational and cultural facilities of the main campus of the University. There are libraries, four reading rooms (100 seats each) and computer rooms for both staff and students.

### **2.2.2 Strengths**

The campus with the clinic, library, reading rooms and seminar rooms is convenient for living and studying.

### **2.2.3 Weaknesses**

The budget for upkeep, repairs and space development is limited.

### **2.2.4 Best Practices**

Training in seminar rooms with the use of computers.

## **Visitors Comments**

Within the facility of the Faculty of Stomatology the auditorium is situated in the main building of the university. However it is not too small, it is not equipped with the audio-visual aids and – preferably – a dental demonstration unit which are standard to-day.

Rooms for small group teaching are not identifiable. Teaching basic and general medicine topics are dislocated at separate premises. So students have to travel around spending their time inefficiently.

There is no sufficient space for self-study. A new library is being formed at the faculty.

Visitors advice: See section 2.1

## **2.3 Teaching laboratories**

### **2.3.1 Introduction**

The department of morphology (anatomy, histology, topographic anatomy and operative surgery) has the anatomic museum and a gallery of students drawings used for teaching. Seminars in physiology, biochemistry, pathology, and pharmacology take place in a

special building with computer rooms connected to Internet for the use by the students. Students have a free access to the clinical, biochemical and microbiological laboratories within the university departments.

### **2.3.2 Strengths**

Teaching laboratories of the University are modern and they have won the recognition of foreign Visitors and students.

### **2.3.3 Weaknesses**

Limited financing for maintenance and developing of laboratories.

### **2.3.4 Best Practices**

Use of hospital and medical research laboratories for training of students and for research.

## **Visitors Comments**

The teaching laboratories in the Basic Sciences Building are useful and well equipped. Visitors were “heavily” impressed by the uniqueness of the objects in the anatomical museum and the enthusiasm of its founder and curator.

Teaching laboratories for dental preclinical training are narrow not allowing adequate ergonomic training nor preparing for efficient transfer of student’s clinical skills into the real situation

Visitors advice: See section 2.1

## **2.4 Research Laboratories**

### **2.4.1 Introduction**

The Faculty of Stomatology has access to the University Central Research Laboratory (with a space of 447,2 m<sup>2</sup>) with its Sections of Morphology, Genetics, Immunology, Pharmacology and others. The laboratory is equipped with an electronic microscope, 7 micro currents, 3 ultramicurrents, 5 vibratomes, 1 Autohumalaizer 900, Coneter Profile, 1 biochemical analyzer FP-900, 3 spectrophotometers, 3 photo electrometers, 1 incubator, 1 polilux, 3 thermocycler Crocodil, 1 ionometer, 2 pressure chambers.

Besides the central laboratory, 14 research laboratories and 21 research groups, metrological service, biological station and students’ scientific circles function at the departments of the university.

### **2.4.2 Strengths**

Students and the staff of the faculty have a good base for a research.

### **2.4.3 Weaknesses**

Limited financing from the state budget.

#### **2.4.4 Best practices**

Developing grant projects under non- budget financing.

### **Visitors Comments**

The laboratory facilities have not been visited by the Visitors explicitly. Accidentally, during the visit of the preclinical teaching laboratories, in the local research laboratory the electronmicroscope showed to be broken.

## **2.5 Library and IT**

### **2.5.1 Introduction**

The Library of the University of Medicine and Pharmacy in Chişinău takes an important role in the teaching and research process in the medical field. It includes literature for all departments of the university. The Library holds 50 current journal subscriptions (for all faculties including the Faculty of Stomatology), 685,000 publications, of which 267,000 are didactic and 400,000 - scientific.

As the needs of information increase, the Library offers the access to the database in medical field on CD - MEDLINE, Russian Medicine, Oxford Textbook of Medicine, a syndicate of Electronic Informing for the Library Direct (e-IFL Direct), a cooperation project between OSI and EBSCO Publishing, and the access to the Internet and e-mail. With these services the users have access to 3,500 journals in social and humanistic science, full text articles from MEDLINE database.

Textbooks are distributed among the students within a 5-year period of study, free of charge. The majority of these textbooks are over 10-15 years old (from the soviet times).

### **2.5.2 Access to Other Library Resources**

Besides the university library medical students, residents and professors have access to the resources of National Library and Republican Medical Scientific Library. The students and the teaching staff have the direct access to their collection, registered as their users.

National Library is a legal deposit for all publications of the nation. Republican Medical Scientific Library is a legal deposit for medical publications. Our Library actively collaborates with the Republican Medical Scientific Library.

### **2.5.3 Library Automation**

In the year 2000, the Library obtained a grant from the Soros Foundation to develop an electronic catalogue of all resources using the Qseries software. The implementation of this software will permit the following facilities:

- To increase the efficiency of the library activity;
- To extent the possibilities in the selecting information;



- To carrying out new services to the users;
- To optimize the statistical evidence of the Library processes.

At present, library staff manually assigns all of the above functions. The functions are out of date, tedious and time consuming. Automation would greatly assist in services delivery.

After the signing of the Collaboration Memorandum in the automation field, the Republican Medical Scientific Library had benefit 6 licenses from the Automation Project of The Library of the Medical and Pharmaceutical University. Being the participant of the project «eIFL» Direct, the University Library offered to the Republican Medical Scientific Library the possibility to use the databases by EBSCO.

#### **2.5.4 Library Propagation and User Education**

Taking into consideration that the Library has modern technologies of information, it appears a pressing necessity of propagation of these technologies and user education in order to use it more efficiently. Library assures guides to valuable information on CD, via Internet and makes this information available to all users. As the library holds too little of foreign subscriptions of medical journals, it is very important to propagate the disposing of the full text electronic journals from databases as mentioned above. The education of the users is done individually.

The spreading of information and the education of the library users involve the library staff for a great portion of their time. The level of qualification of library staff is maintained by periodic attendance of various training courses. The quality of services carrying by Library and their efficiency directly depends on the level of the qualified library staff.

Education of the users is done on an individual base, but the undergraduate students are profoundly trained in groups first. In the curriculum their attention is drawn to the possibilities of information selection and retrieval, using the various services offered by the Library (e.g. Access, Internet, MEDLINE, and others) as well as the Library Lists and Guides. The concept aims at optimal training quality and an efficient use of the Library resources.

Therefore, communication with and feedback about experiences from the users contributes to the development of the Library services, as it is adequate in times of change.

The Higher Education Reform in the Republic of Moldova and the actual introduction of change in the medical curriculum are reflected by the process by which the Library's concept is changed: A modern Library should contain all literature about actual developments in medicine, must met its users needs, and prepared to collaborate with the teaching staff, assuring that its resources are adequate and useful.

#### **2.5.5 Weaknesses**

There are insufficient subscriptions of foreign medical journals as well as a small number of the foreign medical textbooks available for the users. For that reason the implementation of the electronic devises would be fulfilling the learning needs as well as insufficient financial resources. The library staff applies professional potential in developing library

services. The acquaintance with managing experience of the foreign libraries would contribute to the improvement of the services offered by the library.

### **Visitors Comments**

The library is seriously compromised by inadequate resources. It is open only from 08:00 –16:00 Monday to Friday.

The Visitors noted a range of current journals. But the journals were only from Russia and Rumania, as the textbooks are. Visitors advise a direction towards western/English dental and medical journals and textbooks.

Although all textbooks are given to the students free of charge, there is a shortage of spaces for the population of Faculty of Stomatology's students for independent study, particularly for study in small groups.

There is a serious and growing need for information and communication technology, particularly if dental students are to be properly trained for modern dental practice and more importantly the need to be competent to retrieve information as an integral component of life-long education. For that reason the initiative to compensate physical lack electronically is supported by the Visitors.

## **Section 3      Organisational and Administrative Structures**

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### **3.1      Clinical / Academic Organisational Structures for School and Hospital**

#### **3.1.1      Introduction**

The present organizational structure is given in the flow chart at Page 9 of the present report and subordinated to the accomplishment of University Book's goal and tasks and is under permanent modification having in view the objective of its adjustment to the new conditions and requirements of the time, reshuffles and reforms that took place in the health care system of the Republic of Moldova, WHO's rigors and world tendencies in the development of higher medical stomatological education.

In connection with the reforms of the health system, which foresee the orientation of the practical doctor mostly towards primary medical assistance, the department of General Practice and Primary Medical Assistance (1998) was set up in the University.

With the purpose of assurance of a more efficient scientific-practical preparation of the staff, the Stomatological Clinics function within the University as a practical (clinical) scientific instructive centre.

#### **3.1.2      Strengths**

The University has a well-structured administration, which runs with interdisciplinary education at faculties. Due to its organization and administrative structures the Faculty of Stomatology completes the specific of training the stomatologist preparing theoretically and practically well trained specialists. According to the quality of stomatologic education – the Faculty of Stomatology takes the 24th place among the dental faculties listed by World Health Organization.

#### **3.1.3      Weaknesses**

The budget limitations don't allow advanced computerization of our organization and administrative structures, which has a negative influence on the efficiency of work being done.

### **Visitors Comments**

see General Comments below.

## **3.2 Information Technology**

### **3.2.1 Clinical/Academic Organizational Structures for School and Hospital**

The present organizational structure is foreseen in the organization chart and subordinated to the accomplishment of University Book's goal and tasks and is under permanent modification having in view the objective of its adjustment to the new conditions and requirements of the time, reshuffles and reforms that took place in the health care system of the Republic of Moldova, WHO's rigors and world tendencies in the development of high medical stomatological education.

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With the purpose of assurance of a more efficient scientific-practical preparation of the staff, The Stomatological Clinics function within the University as a practical (clinical) scientific instructive center.

### **3.2.2 Strengths**

The University has a well-structured administration, which runs with interdisciplinary education at faculties. Due to its organization and administrative structures the Faculty of Stomatology completes the specific of training the stomatologist preparing theoretically and practically well trained specialists. According to the quality of stomatologic education – the faculty of Stomatology takes the 24th place among the dental faculties listed by World Health Organization.

### **3.2.3 Weaknesses**

The budget limitations don't allow advanced computerization of our organization and administrative structures, which has a negative influence on the efficiency of work being done.

### **3.2.4. Information Technologies**

The complex relationship between the University Dental Policlinic and the Faculty of Dental Medicine is illustrated in the diagram (fig.) and it results from the fact that this Policlinic represents the clinical base of the Faculty and the dental education and training and the dental service are provided by the same dental specialists. The Manager of the University Dental Policlinic and the Heads of the Clinics are members of the educational staff, too.

### **Visitors Comments**

From the information given to each discipline below (Section 5 - 17) Visitors conclude that the ability for fast and informal networking is poor (only few email addresses were given c.q. one email address is given for more heads of departments).

see General Comments below.

### **Visitors General Comments**

It is difficult to comment with confidence on the decision-making structures within the Faculty of Dental Medicine and especially the issue of responsibility for financial control. This is a central issue in effective management of change and the Visitors recommend that the Faculty, in-so-far as is possible, have greater devolved decision-making responsibilities. A Faculty of Stomatology is unique because of its patient care services, applied clinical research and heavy administrative load. Also it is required to pay particular attention to the needs of the community, priorities in health care and provision of a wide range of specialist services not otherwise available as well as caring for those patients with special needs such as the medically compromised and socially disadvantaged groups in society. Visitors refer to our recommendations about a Mission Statement jointly authored and agreed by the University, the Departments of Health and Education and the Faculty of Stomatology as the primary focus.

The Visitors strongly recommend that a strategic financial plan be developed for the future and this must be consistent with the Mission Statement and priorities. All of this should be transparent. The Faculty of the Faculty of Stomatology must be given greater freedom in its own financial controls and development if it is to be more innovative in increasing its income. This is very common in universities throughout Europe. It is understood that there may be scepticism about business and enterprise in the private sector. Nevertheless business has many useful initiatives from which universities could benefit if sensitively and appropriately applied.

## **Section 4      Staffing**

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### **4.1      Staffing Levels**

In 2000-2001 academic years the professorial-didactic staff at the Faculty of Stomatology included 70 persons for 66 positions, occupied being 60 positions (90,9%), 45 persons (75%) from which with basic function, internal full time professors cover 50,5 positions (84,2%) and 19 external part time professors who cover 9,5 positions (15,8%) . From titular didactic staff 7 persons have the scientific degree Ph.D. (11,7%), 35 persons – MD degree (58,3%). The didactic degrees of professor and assistant professor have 45 persons (75%). Thus, from 60 didactic staff, 42 persons (70%) have scientific and didactic degrees.

The Ministry of Public Health and the Ministry of Education and Science perform employment of didactic staff according to the regulation restrictions established through competition, internal and external pluralism and contract.

### **Visitors Comments**

In the Faculty of Stomatology Visitors found very committed staff of all positions, from teaching assistants to full professors.

All staff is teaching students and sharing their time to treat patients. Differences were found between time spent by staff in the one or the other department, depending on the number of patients that are treated by each of them. This causes differences in the time that (particularly) junior staff can devote to research, and results in frustration in those of them which have to treat much patients. Since for promotion only research is considered, a solution to balance these differences amongst departments should be taken into account.

Great commitment was observed also among the medical school staff teaching medical and basic sciences. Although Visitors noticed that there is a good relationship between the medical departments and the Faculty of Stomatology, Visitors think that a better cooperation between them is needed in order to better define the dental students learning needs of basic sciences and medicine.

### ***Staff Development***

There should be a strategic policy on staff development as an integral part of the Mission Statement. Staff development is more that international exchange:

- Student feedback
- Peer review
- Adequate and equitable reward system
- International education journal

- Modern Pedagogic methods

## 4.2 List of Staff

Employment of didactic staff is performed according to the actual regulations through competition, internal and external pluralism and contract.

The staff at the Faculty of Stomatology for the academic year 2000-2001 amounts 70 persons for 66 positions (ftes). 60 positions (90.9%) are occupied at the moment of the visit. From them 45 persons (75%) has a basic function. Internal pluralists fill 50,5 positions (84.2%); 19 persons are external pluralists who cover 9.5 positions (15.8%).

From titular didactic staff 7 persons have a PhD-degree (11.7%), 35 persons a MD-degree (58.3%). 45 persons (75%) have the didactic degree of professor and assistant professor. Thus, from 60 didactic staff, 42 persons (70%) have scientific and didactic degrees.

Name, surname	Degree
Ilarion Postolachi	Professor, PhD, Chief of Department
Victor Banuh	Associate Professor
Mihai Cojocaru	Associate Professor
Nicolae Cojuhari	Associate Professor
Vasile Gutuțui	Associate Professor
Vasile Gamureac	Assistant
Nicolae Bajurea	Assistant
Șcerbatiuc Dumitru	Professor, Ph.D., Chief of Department
Popovici Teodor	Associate Professor
Ouatu Vasile	Associate Professor
Iluța Ion	Associate Professor
Balan Eugenia	Assistant
Volneanschi V.V.	Associate Professor
Dionidis I.A.	Associate Professor

Andrieş V.	Professor, PhD Chief of Department
Poburnaia E.	Associate Professor
Certan G.	Associate Professor
Caragia T.	Assistant
Mihailovichi G.	Assistant
Railean S.	Assistant
Nicolau G.	Professor, PhD, Chief of Department
Sarbu S.	Professor, PhD
Baraniuc A.	Associate Professor
Nicolaiciuc V.	Associate Professor
Ciobanu S.	Assistant
Carcea N.	Assistant
Alexeev V.	Assistant
Popa S.	Assistant
Musteata V.	Assistant
Moraru S.	Assistant
Terehov A.	Assistant
Matcovschi S.	Associate Professor
Cojocaru V.	Associate Professor
Chele N.	Assistant
Godoroja P.	Professor, PhD, Chief of Department
Hitu D.	Assistant
Baidauz Iu.	Assistant



Spinei Iu.	Assistant
Trifan V.	Assistant
Siminovici V.	Assistant
Minascurta G.	Assistant
Dulghieru T.	Assistant
Fedelenciuc I.	Assistant

# The Dental Curriculum (Sections 5 – 16)

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## Section 5 The Biological Sciences

### 5.1 BIOCHEMISTRY

#### Responsible person:

Dr. Olga Tagadiuc, Associate Professor  
e-mail: biosltmednet.md

Fax: --

#### 5.1.1 Introduction

Biochemistry is taught to the dental students in the II<sup>nd</sup> and III<sup>rd</sup> semester. The course includes fundamental information about structure, function, metabolism of main classes of chemical compounds (proteins, carbohydrates, lipids, nucleic acids); the correlations and integration between this metabolic branches as well as the essence of neuro-hormonal regulatory mechanisms. A special chapter includes material on the chemical composition, structure and metabolism of dental tissues and oral liquids and their correlations with the general metabolism branches.

#### 5.1.2 Primary Aims

To provide students with basic knowledge in:

- primary chapters of biochemistry and biochemical mechanisms that are the have the human viability and reproduction.
- biochemical aspects of stomatology that will allow them to assimilate and apply in practice the modern scientific discoveries.

#### 5.1.3 Main Objectives

At graduation students are expected to have knowledge in the areas:

- Structure, biological role and metabolism of amino acids and proteins.
- Enzymes - structure, biological role, action mechanism and properties. Enzymodi-agnostic, enzymotherapy.
- Nucleic acids – structure, biological role, biosynthesis and the degradation. Proteins biosynthesis.
- Bioenergetics - mechanisms of energy generation in human organism.
- Carbohydrates metabolism.
- Lipid's structure and metabolism; membranology.
- Hormonal mechanisms of homeostasis regulation (with accent on hormones that regulate the metabolism of calcium and phosphates).
- Composition, structure and metabolism of conjunctive tissue and bones.
- Composition, structure and metabolism of dental tissues and liquids of stomathological interest.

#### **5.1.4 Hours in the Curriculum**

136 hours divided in 2 semesters.  
102 hours - seminars and laboratory work.  
34 hours - lectures.

#### **5.1.5 Method of Learning/Teaching**

Theoretical study with discussions during seminars combined with practice in biochemical laboratory.

#### **5.1.6 Assessment Methods**

Students must pass 5 tests during 2 semesters and a final examination at the end of course.

#### **5.1.7 Strengths**

Discussing of the role of all biochemical processes in the physiology and pathology of the oral tissues. Teaching modern biochemical diagnostic methods. Specific matters for dental specialty from each studied chapter and the specific chapter "Biochemistry of stomatological interest" (with appropriate laboratory tasks in addition) allow the student-stomatologist to gain deep and detailed knowledge about normal structure and metabolism of this tissues, their changes in most frequent pathology and modern biochemical diagnostic methods.

#### **5.1.8 Weaknesses**

Financial problems of the university create difficulties in realization of modern laboratory assessment methods.

#### **5.1.9 Innovations and Best Practices**

- Computerized evaluation of student's knowledge that makes marks more objective due to a sufficient number of computers at the department.
- The department owns a library with modern specialty literature in English and French.
- The department precincts is MedNet's Headquarter that offers each student free access to the specialty information from Internet.

#### **5.1.10 Plans for Futures Changes**

The department is planning to publish a compendium for the dental students, which is specifically addressing the educational program of the Chişinău faculty, with problems with a Solution Manual in English and Romanian.

#### **5.1.11 Staff Names, Qualifications and e-mail Addresses**

Dr. Leonid Lîsîi	Professor, Ph.D.	—
	Head of Department	
Dr. Gheorghe Ivasi	Associate Professor, Ph.D.	—
Dr. Mircea Ştefârţă	Associate Professor, Ph.D.	—
Dr. Svetlana Bobkova	Associate Professor, Ph.D.	—
Dr. Olga Tagadiuc	Associate Professor, Ph.D.	—

Dr. Ala Ambros	Associate Professor, Ph.D.	—
Dr. Vladimir Horneț	Associate Professor, Ph.D.	—
Dr. Iulia Stratulat	Lecturer, Ph.D.	—
Dr. Silvia Stratulat	Lecturer	—
Dr. Svetlana Protopop	Assistant	—

### **Visitors Comments**

See Visitors General Comments below

## **5.2 BIOORGANIC CHEMISTRY**

### **Responsible person:**

Dr. Ivanov Vasile, Professor, Head of Department  
e-mail: — Fax: —

### **5.2.1 Introduction**

The knowledge of bioorganic chemistry is necessary to learn the basic concepts with regards to the structure, function and action mechanism of organic substances. This knowledge is indispensable for the further course of biochemistry. The bioorganic chemistry course is taught in the 1<sup>st</sup> semester of the 1<sup>st</sup> year. In this course the structure, chemical reactivity, legalities of chemical behaviour, reciprocal connection of active biological organic compounds, which stay at the basis of all vital processes, is taught.

### **5.2.2 Primary Aims**

The primary aims of the course are:

- To provide the students with necessary knowledge and basic ideas about the structure and chemical reactivity of organic substances;
- To give the students the opportunity to understand the bioorganic aspects of the dental chemical composition and structure.

### **5.2.3 Main Objectives**

Students that studied the above-mentioned course should Know and be familiar with the following concepts:

- structure, classification and nomenclature of organic compounds;
- conformity and stereo-isomerism of organic compounds;
- electron structure and reciprocal influence of atoms in the molecules of the organic substances;
- acidity and alkalinity of organic compounds;
- nucleophilic addition and substitution reactions of the atom of the carbonic carbon;
- hydrolyzed lipids; liposoluble vitamins (most of all – the structure and role of vitamin D);
- heterofunctional compound of the benzen representatives series;

- proteinogenic amino acids, peptides;
- Carbohydrates structure;
- Nucleic acids.

#### **5.2.4 Hours in the Curriculum**

The bioorganic chemistry course is taught during the 1<sup>st</sup> semester of the 1<sup>st</sup> year of study. It includes 60 hours.

#### **5.2.5 Method of Learning/Teaching**

Problem-based learning methods are being used (teaching includes lectures, laboratory works, seminars, visual aids and handouts).

#### **5.2.6 Assessment Methods**

Two multiple-choice tests during the term and a final exam.

#### **5.2.7 Strengths**

Every topic is related to the previous one, that gives the possibility to improve the teaching methodologies and outcome on a continuous basis.

#### **5.2.8 Weaknesses**

Financial problems of the university create difficulties in operationalization of modern laboratory assessment methods.

#### **5.2.9 Innovations and Best Practices**

This course was elaborated especially for the students of the stomatological department of the university. That means that only subjects connected to dental practice were introduced in the curriculum.

#### **5.2.10 Plans for Future Changes**

The assessment during the term will be provided by computerised testing that would make it more objective.

#### **5.2.11 Staff Names, Qualifications and e-mail Addresses**

Ivanov Vasile	Professor, Ph.D.	—
	Head of Department	
Constantin Cheptănar	Associate Professor, Ph.D.	—
Danilina Liubovi	Lecturer, Ph.D.	—

#### **Visitors Comments**

See Visitors General Comments below

## 5.3 MOLECULAR BIOLOGY AND HUMAN GENETICS

### Responsible person:

Dr. Larisa Țaranov, Associated Professor, Head of Department

e-mail: —

Fax: —

### 5.3.1 Introduction

The course is taught during the 1<sup>st</sup> semester of the 1<sup>st</sup> year of study.

### 5.3.2 Primary Aims

To familiarize the students with:

- Molecular level of alive nature organization;
- Main molecular mechanisms: DNA replication, transcription and translation of genetic Code;
- The mechanisms of transmission of genetic information from cell to cell and from ascendants to descendants;
- The basis of heredity and variability of normal and pathological characters;
- The methods of studies used in human genetics.

### 5.3.3 Main Objectives

By the end of course the students should know:

- The structure, proprieties and functions of nucleic acids;
- The genetic code and the steps of realization of genetic information;
- The biological role of mitosis and meiosis;
- The mendelian and non-mendelian transmission of normal heritable characters;
- The sources of mutational variability, the mutagenesis and its impact in human pathology;
- The heredity of some cranio/facial dismorphismes;
- The evaluation of human karyotype, the Barr's test, the genealogical studies and genetic advise.

### 5.3.4 Hours in the Curriculum

Theoretical course - 17 hours; practical course - 51 hours

### 5.3.5 Method of Learning/Teaching

Teaching process consist of:

- Theoretical courses;
- Practical courses;
- Accomplishment of situational problems;
- One to one tutor relationship.

### 5.3.6 Assessment Methods

- **“10 graded system”** to assess knowledge;
- Current knowledge evaluation through tests and situational problems;

- At the end of the course: Examination which consists out of a theoretical and a practical part.

### **5.3.7 Weaknesses**

More hours are necessary for the theoretical course – at least 34 hours; the course should be carried out after the courses of Biochemistry and Histology.

### **5.3.8 Innovations and Best Practices**

No innovations are intended, no Best Practices can be given.

### **5.3.9 Plans for Futures Changes**

- Course integration with other courses, particularly with biochemistry and histology;
- Accentuation on molecular component of human genetics;
- Use of techniques of molecular biology in a practical course;
- Edition of a new Course of Human Genetics.

### **5.3.10 Staff Names, Qualifications and e-mail Addresses**

Larisa Țaranov	Associated Professor, DMS Head of Department	—
Natalia Cherdivarencu	Associate Professor, Ph.D.	—
Valentina Terehova	Associate Professor, Ph.D.	—
Igor Cemortan	Associate Professor, Ph.D.	—
Svetlana Capcelea	Senior Lecturer, DMS	—
Oleg Bacalov	Senior Lecture, DMS	—

### **Visitors Comments**

See Visitors General Comments below

### **Visitors General Comments**

The Visitors appreciate the efforts made in order to give the students a sound microbiological and biochemical basis for their studies and education in Dental Medicine. However it is recommended that these subjects should be more integrated into the oral health curriculum and that an educational methodology of problem orientated learning be employed with an emphasis on fundamental principles and learning how to cope with the exponential growth of knowledge in the sciences taking advantage of new information and communication technologies. In general, teaching facilities are appropriate to the educational needs of dental students and include the availability of modern technology.

Please note the recommendations in respect of overall curriculum and a suggested "Curriculum Committee" above; the "Curriculum Committee", named in Chişinău the

“Methodological Commission”, should include more younger staff members and use the information of new concepts of dental education.



## **Section 6 Pre-Clinical Sciences**

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### **6.1 ANATOMY**

#### **Responsible person:**

Dr. Vasile Andriesh, Professor, Head of Department  
e-mail: — Fax: —

#### **6.1.1 Introduction**

Human Anatomy is taught for two terms by seminars, work shops and delivered lectures.

In the first term the two-hours seminars are held twice each week by which the locomotion apparatus (bones, joints, muscles), the digestive, respiratory and urogenital systems are studied. The most detailed structures studied are the head and neck.

In the second term two-hour and three-hour seminars are held twice a week. In this term the central and peripheral portion of the nervous system, the blood and lymphatic vessels, the endocrine glands and sense organs are studied. Mainly attention is focused on the anatomy of the head and neck.

The delivered lectures from the first and second term include the phylogenesis and ontogenesis, abnormalities of the development, age and sex features which are not described in the standard textbook.

#### **6.1.2 Primary Aims**

The primary aim of the anatomical curriculum is provide a detailed study about the structures, individual variability and age features of skull, of joints, muscles, vessels, nerves situated in the head and neck regions, with emphasis on organs and anatomical components of masticator apparatus, on peripheral portion of the somatic and vegetative nervous system of the head and neck, also attention is given to the blood and lymphatic vessels of the head and neck, as a basis for clinical practice.

#### **6.1.3 Main Objectives**

Students are required to have an appropriate understanding of:

- the phylogenesis and ontogenesis of the pharyngeal arches.
- the skeletal system including joint classification with particular emphasis on the cranium, mandible and temporomandibular joint.
- the muscles of the head and neck with particular emphasis on the osseomuscular and intermuscular spaces.
- the cranial nerves, especially the trigeminal, facial, glossopharyngeal, accessory, hypoglossal concerning the head and the neck.
- the oral cavity, nasal cavity and sinuses, pharynx and larynx.
- the blood supply and the lymphatic vessels of the head and neck.
- the somatic and vegetative innervation of the anatomic structures of the head and neck.
- The structure of the cerebral hemispheres, brainstem, cerebellum and spinal cord.

- The pathways of the fibres conveying the cranial, optic, trigeminal, facial, stato-acoustic, glossopharyngeal, vagus, accessory and hypoglossal nerves.

#### **6.1.4 Hours in the Curriculum**

In the first term: 68 practical hours.  
In the second term: 85 practical hours.  
Delivered lectures in the first term: 51 hours, in the second term also 51 hours.  
Total contact hours: 255.

#### **6.1.5 Method of Learning/Teaching**

In the seminars/workshops, during approx. 20 minutes, the teacher explains the new theme with emphasis on the principal elements of the seminar/workshop. After this introduction the students study by themselves the (bones, joints, muscles, vessels, nerves of the cadaver) from books, atlases of anatomy and anatomical preparations.

In the next seminar/workshop the teacher controls the knowledge gained of all the students of the group.

#### **6.1.6 Assessment Methods**

The methods of assessment carried out in the first term are the “multi-stepped exam”: First a practical part with three tasks/questions. Those students, who pass the practical part, take a ticket containing seven questions to be answered in writing. For the final mark the marks received during the term are taken into consideration.

In the second term the students have to pass the “promoting exams”: First a practical parts (students are asked about the preparations) with nine tasks/questions. Those students who pass the practical part, take a ticket containing eight questions which have to be answered in written form. The final mark is the mean of the cumulative marks during the term, additionally attendance at the lectures are taken into consideration.

#### **6.1.7 Strengths**

The responsibility for learning and the aim of the chosen topics is clearly defined for the student at each seminar. Students are assessed at every seminar, resulting in a better understanding of the material and topics to be learned. Students get one mark, or two on each seminar. The latter as an opportunity to obtain good knowledge to remedy deficiencies.

#### **6.1.8 Weaknesses**

The deficiency of study guides and textbooks in the Romanian language causes difficulties in the learning process for students who only speak Romanian (the students of Romanian origin study anatomy after the M. Sapin textbook, like the students from the General Medicine Department, the Russian students study after the S. Mihailov textbook).

#### **6.1.9 Innovations and Best Practices**

The students are active in preparing study materials for the classes (reproduce body parts different materials as well as from the corpus). They prepare the head and neck

nerves and vessels of the cadaver and also some separate organs (like tongue etc.) Some students prepare the museum preparations; they also manufacture teeth from soap, plasticine and plastic materials.

### **6.1.10 Plans for Futures Changes**

Until now the students had to pass the practical tests separately before being allowed to take the theoretical part; in future students will take 120 preliminary tests (multiple-choice items), after which the students will pass the exams.

Professor Andries and joint authors are writing a textbook of anatomy for stomatologists in Romanian language.

### **6.1.11 Staff Names, Qualifications and e-mail Addresses**

Dr. Vasile Andries	Professor, Ph.D.	—
	Head of Department	
Dr. Emilia Poburnaia	Associate Professor, DDS	—
Dr. Galina Certan	Senior Lecturer, DDS, MD	—
Dr. Tatiana Caragia	Assitant, Paediatrician	—

### **Visitors Comments**

The course in anatomy is well adapted to the needs of the dental students. The teachers are very committed and strive continuously for change and innovation.

The course seems to be well planned (the problems with the large student groups are commended elsewhere). As for other subjects within medicine a better orientation and integration in oral conditions might be desirable.

The Visitors are impressed by the beautiful anatomical museum, where students can find a lot of well prepared samples. They did not see a lot of emphasis given on anatomy of the healthy teeth and gingival.

The main objectives of this course are clearly stated. It is an excessive course which might be cut down, particularly as there is a complaint about the lack of space in the laboratory: Visitors recommend reduction of hours.

## **6.2 TOPOGRAPHIC ANATOMY AND OPERATIVE SURGERY**

### **Responsible person:**

Professor Boris Topor and Associate Professor Ion Brus  
e-mail: boristopor@yahoo.com Fax:

### **6.2.1 Introduction**

The courses of Topographical Anatomy and Operative Surgery focus at students of the second year in the spring semester of the dental undergraduate course.

### **6.2.1 Primary Aims**

- To provide students with a detailed understanding of the head and neck clinical anatomy;
- To provide students with the bases of surgical procedures.

### **6.2.3 Main Objectives**

Students are required to have an appropriate knowledge in:

- topographic anatomy of the cerebral and facial regions and their divisions. Level-by-level constitution, blood supply and innervation of the head and neck teguments. Interfascial spaces, clinical enrolment. Lymphatic system of the head and neck. Circulation of the cerebrospinal fluid;
- topographic anatomy of the cranial nerves; particularly the trigeminal, facial, glossopharyngeal, hypoglossal and accessory nerves and those parts of the vagus concerned with the head and neck in aspect of blockage of the branches of these nerves.
- surgical operations on cerebral region; surgical treatment of cranio-cerebral wounds;
- haemostatic surgical procedures in the head and neck area, trepanation of the skull, antrotomy;
- topographic anatomy of oral cavity, nasal cavity and sinuses. Facial venous system and its connections with intracranial veins;
- operative surgery of facial region. Blockage of the main branches of the nerves. Typical incisions in the facial area in case of the phlegmons and abscesses. Particularly surgical treatment of wounds in facial region;
- topographic anatomy and operative surgery of the neck region. Upper and lower tracheotomy. Conicotomy. Accesses to cervical part of the oesophagus. Ligature of the carotid arteries and lingual artery. Puncture of the subclavial vein;
- topographic anatomy of the thoracic region. Topography of intercostal space, of pleura and lungs, of mediastinum. Puncture of pleura recesses, rib resection;
- topographic anatomy of abdominal and pelvic regions;
- topographic anatomy of upper and lower extremities; Bones, joints, musculature, neurovascular bunches.
- surgical operations on animals: local anaesthesia and blockage of the nerves, tracheotomy and conicotomy, ligature of arteries, surgical treatment of wounds.

### **6.2.4 Hours in the Curriculum**

67 hours total (16 hours of lectures and 51 hours of lab).

### **6.2.5 Method of Learning/Teaching**

Usually, seminars start with a short introduction by a senior staff member. Then the students are studying in groups, using models, charts, atlases, anatomical specimen or animals and other materials provided. The students work in the dissecting room or operating room. In the operating room the students operate on the anatomical specimens or

on animals. The last half hour is spent for discussion of the topic of the day with a professor.

### **6.2.6 Assessment Methods**

Two formats of assessment are applied: Short-answer questions and a practical examination. Assessments (using these two methods complementary at each examination) are carried out at the end of each term. The final mark is the calculated mean of both assessments.

### **6.2.7 Strengths**

The responsibility for learning and the scope of the chosen topics is clearly defined for the student at each seminar. Students get immediate and continuous feedback on the quality of their learning and have opportunities to remedy deficiencies.

### **6.2.8 Weaknesses**

The course is in the process of permanent development following the recent introduction of the situation-based learning concept; modifications will be taken their need evolves from the process of improvement teaching and learning.

### **6.2.9 Innovations and Best Practices**

The development of interactive computer software packages for use by individual students at their own pace and the use of existing CD ROM programs. Creation of a Course Workbook to be supplied to each student at the start of the course as an immediate reference source for essentials of human topographical anatomy and of main surgical techniques.

### **6.2.10 Plans for Futures Changes**

Close observation of student progress will enable appropriate adaptations to be made on a continuous basis. It is also intended to expand the range of the surgical operations which the students will be able to perform on animals, as finance becomes available.

### **6.2.11 Staff Names, Qualifications and e-mail Addresses**

Dr. Boris Topor	Professor, Ph.D., MD Head of Department	boristopor@yahoo.com
Nicolae Fruntas	Professor, Ph.D., MD	—
Ion Podubnai	Professor, Ph.D.	—
Ion Brus	Associate Professor, Ph.D.	—
Olga Bedencov	Associate Professor, Ph.D.	—
Vasile Gheorghita	Associate Professor, Ph.D.	vgheorghitsa@hotmail.com
Ion Tcacencu	Assistant Professor, MD	iont@mail.md
Viorel Nacu	Lecturer, Ph.D.	nacuv@mail.md

### **Visitors Comments**

See general comments.

## **6.3 PHYSIOLOGY**

### **Responsible persons:**

Dr. Aurel Saulea, Professor, Head of Department  
e-mail: saulea@mednet.md Fax: --

#### **6.3.1 Introduction**

The physiology course supplies an informational background concerning the normal functions of human body. The course is structured so, that the functions are studied in stages, characterized by increasing the degree of complexity of information.

The first term starts with approaching various aspects of general physiology – the structure and function of membrane, specialized properties of different types of cells and tissues, general mechanisms of regulation of functions and systems.

This knowledge is the starting point for the second term in the curriculum, to study functions on the system level, after which another degree of organism integration follows, such as its reaction as a whole to the modification of ambient conditions.

#### **6.3.2 Primary Aims**

The curriculum intends students

- to provide with basic knowledge concerning the fundamental properties of cells, tissues, organs and systems; the function of regulation and control of organs and systems and the interaction between them, and
- to enable them to use this knowledge for understanding the principles of functional deregulations and of general mechanisms of functions and systems regulation.

#### **6.3.3 Main Objectives**

The main objectives of the physiology course include teaching the most important compartments of the subject:

- Excitative tissues;
- Blood;
- Cardiovascular system;
- Respiratory system;
- Digestive system;
- Metabolism. Thermoregulation;
- Excretion;
- Endocrine system;
- Analyzers;
- High nervous system activity.

#### **6.3.4 Hours in the Curriculum**

Human Physiology is studied during the 1<sup>st</sup> and 2<sup>nd</sup> year of study (in the 2<sup>nd</sup> and 3<sup>rd</sup> term). In total 137 hours are scheduled, 35 of which are course and 102 are practical hours. During one week one course and three practical hours are accomplished. The duration of the whole course is 34 weeks.

### **6.3.5 Method of Learning/Teaching**

In teaching physiology the following methods are used:

- Lectures (theoretical course), where up to date conception on human body functions are being exposed.
- Seminars, during which the theoretical material according to the curriculum is discussed, the students' knowledge are evaluated.
- Practicals, meant to accomplish the classical physiological experiments by the students, both real and simulated on computer.

### **6.3.6 Assessment Methods**

- Oral tests in each seminar;
- Multiple choice tests and essays on each chapter;
- Assessment of the practical skills (at the end of the course);
- Written examinations.

### **6.3.7 Strengths**

The practical course program is renovated according to modern physiological concepts. The course is integrated with stomatological subjects.

### **6.3.8 Weaknesses**

Lab facilities desperately need to be renovated to satisfy modern standards.

The practical course needs renovation of the experimental equipment with implementation of a system of data acquisition.

### **6.3.9 Innovations and Best Practices**

Preparation and implementation of computer interactive physiological programs. Integration of the physiology course horizontally and vertically in the curriculum.

### **6.3.10 Plans for Futures Changes**

Publishing the Textbook of Physiology and implementation of a computer system to record experimental data.

### **6.3.11 Staff Names, Qualifications and E-mail Addresses**

Aurel Saulea	Professor, Ph.D. Head of Department	<a href="mailto:saulea@mednet.md">saulea@mednet.md</a> <a href="mailto:saulea2001@yahoo.com">saulea2001@yahoo.com</a>
Nicolae Demiscan	Assistant Professor, MD	—
Dabija Pantelemon	Assistant Professor, MD	—
Victor Rotaru	Assistant Professor, MD	<a href="mailto:rotarumd@yahoo.com">rotarumd@yahoo.com</a>
Valentina Ciupac	Lecturer, MD	—
Vasile Bodiu	Lecture, MD	—
Ana Gherman	Lecturer, Ph.D.	<a href="mailto:slozovan@yahoo.com">slozovan@yahoo.com</a>
Boris Dragan	Associate Professor, Ph.D.	<a href="mailto:draganboris@yahoo.com">draganboris@yahoo.com</a>
Svetlana Lozovan	Associate Professor, Ph.D.	—
Victoria Chihai	Lecturer, MD	<a href="mailto:vchihai@yahoo.com">vchihai@yahoo.com</a>
Samotiuc Elena	Lecturer, MD	—

## **Visitors Comments**

The Visitors are impressed by the new technology that is developed with a virtual physiological CD-ROM. A good practice is the functioning of a scientific student club.

## **6.4 HISTOLOGY, CYTOLOGY AND EMBRYOLOGY**

### **Responsible person:**

Dr. Pavel Gusar, Professor, Head of Department  
e-mail: — Fax: —

### **6.4.1 Introduction**

Histology, cytology and embryology are offered to the students as an integrated course during the first year of study to present the pertinent subject matter of human cell biology, embryology, tissue and organ microstructure and function.

### **6.4.2 Primary Aims**

At the end of the course students should be able:

- to present the information on cellular structure, so it will serve as an effective source for understanding the cellular basis of pathology, physiology and other basic sciences, and for farther learning of other pre-clinical as well as clinical disciplines;
- to recognize tissues and organs on the base of their microscopic characteristics.

### **6.4.3 Main Objectives**

- To satisfy the student needs in histology by the knowledge of data offered by light microscopy, including cytohistochemical, autoradiography and some other methods, and by transmission and scanning electron microscopy,
- To cultivate practical dexterity to histologic specimens and electron microscopic figures, reconstituting on the base of two- dimensional findings the trivalent images of structures,
- To assure a comprehension of tissues basic properties and of their interrelations in different organs,
- To assure the knowledge of prenatal stages of development in man to understand the normal relationship of body structures and the causes of congenital malformations.

### **6.4.4 Hours in the Curriculum**

The Histology, Cytology and Embryology Course is comprised of 68 hours lecture and 105 hours practical classes, which take place once a week throughout the year.

### **6.4.5 Methods of Learning/Teaching**

The curriculum provides thirty-four topics for each of them being dedicated 2 lectures and three 4-hour practical classes. The main content of laboratory classes is the self-



study of slides (with a total of approx. 150) and electron micrographs, making pencil-drawing of findings.

#### **6.4.6 Assessment Methods**

Students are assessed in four intermediate exams and in the final exam at the end of first year. The exams provides slide identification with adequate verbal argumentation and special formats of fifty questions with true/false statements to select for. Tutors also assess students for their performance during practical classes.

#### **6.4.7 Strengths**

Taking into account the special needs of the stomatological school, some topics of the curriculum are essentially enlarged. It concerns such topics as development of the face, development of the palate, the derivatives of branchial arches, the development of the teeth, the particularities of the masticatory and lining mucosa, the tongue and taste buds, the tooth and its supporting structures, the salivary glands, the tonsillar apparatus and some others.

#### **6.4.8 Innovations and Best Practices**

Embryology with the development of face skeleton particularities and the organ of the buccal cavity. (during 2002 year).

Publication of collection for the stomatologists.

Finishing the computer programs of knowledge assessment and self-instruction in histology (during 2002 year)

#### **6.4.9 Plans for Future Changes**

Histochemical methods of study the enzymes activity.

The impregnation methods of the nervous tissue.

#### **6.4.10 Staff Names, Qualifications and e-mail Addresses**

Pavel Gusar	Professor, Ph.D.	—
	Head of Department	

#### **Visitors Comments**

See Visitors General Comments below

## **Section 7 Para-Clinical Sciences**

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### **7.1 PHARMACOLOGY**

#### **Responsible person:**

Dr. Nicolai Sava Valer, Professor, Head of Department  
e-mail: — Fax: —

#### **7.1.1 Introduction**

The speciality of stomatology implies a wide competence of the dentist within the general medical field. Students study three divisions of this discipline: (i) General prescription, (ii) general pharmacology and (iii) special pharmacology.

General prescription aims at particularities of drug prescription used in the prophylaxis and treatment of dentistry conditions.

General pharmacology points out the hazard of getting adverse events in the way the pharmaceuticals are administered and excreted, with a special emphasis on the danger the oral cavity mucous membrane and teeth are exposed to.

While studying special pharmacology students learn: The definition of the clinical-pharmacological group, basic effects and mechanisms of drug action, as well as indications, counter-indications, counter-indications and undesirable events. When characterizing each group of pharmaceuticals, certain compound are justified for being used in stomatology practice. General principles for the urgent management of acute drug poisoning are wrapped up the course.

#### **7.1.2 Primary Aims**

To provide dental student with knowledge in:

- general methodology of drug prescription;
- principles of drug's re-absorption, distribution, metabolism, excretion, mechanism of action and adverse events; and
- specific features of drugs used in dentistry, the impact of pharmaceuticals in pregnancy, breast-feeding, paediatrics and geriatrics.

#### **7.1.3 Main Objectives**

At the end of the course students will be able to:

- control the pain of their patients owing to teeth conditions and surgical operations;
- hinder and eliminate the destructive process occurring in the soft and dental tissues;
- eliminate the inflammatory process and stimulate the regeneration of buccal mucous;
- provide emergency assistance in general somatic complications occur ( angina pectoris, asthma etc.) ;
- deliver prescriptions for the treatment of patients with dental problems; and
- select appropriate drugs for the respective pharmacological therapy indications.

#### **7.1.4 Hours in the Curriculum**

Pharmacology is taught to third year student-dentists (semesters V and VI.). The schedule consists of 34 hours of lectures (one hour weekly) and 68 hours of practical sessions (90 min. Weekly). The teaching/didactic process is carried out in line with the adopted rules of the Central Methodical Committee.

#### **7.1.5 Methods of Learning/Teaching**

Students study pharmacology from general pharmacology textbooks which were adapted to the needs of the dental students. Their learning is based on the information given in lectures and from discussions during seminars.

#### **7.1.6 Assessment Methods**

Throughout the year, students' knowledge is assessed in four parts by topics ("wrap-up seminars"), discussions, tests and the exam, at the end of year.

#### **7.1.7 Strengths**

The course is adopted for the dental students according to their professional requirements.

#### **7.1.8 Weaknesses**

Practical sessions with lab animals are not supplied properly in order to consider the effects of certain pharmaceuticals.

#### **7.1.9 Innovations and Best Practices**

Drugs frequently used by dentists are shown at practical sessions. Pharmacological effects of certain drugs used in dentistry are demonstrated in experiments.

#### **7.1.10 Plans for Futures Changes**

It is planned to equip the department with computers, multimedia and Internet connection.

#### **7.1.11 Staff Names, Qualifications and e-mail Addresses**

Nicolai Sava Lazar	Professor, Ph.D. Head of Department	—
Eduard Boris Cheptea	Associate Professor, MD	—
Corina Dumitri Scutar	Senior Lecturer, MD	—
Nicolai Ion Doni	Associate Professor, MD	—
Ludmila Gheorghe Anghel	Senior lab assistant	—
Rodica Anatol Peredelcu	Senior lab assistant	—
Vasile Vasile Cazacu	PhD-student, MD	—
Liliana Ion Dogotari	PhD-student, MD	—
Siscan	Operator	—

## **Visitors Comments**

See Visitors General Comments below

## **7.2 MICROBIOLOGY**

Dr. T. Gheorghita

e-mail:

Fax:

### **7.2.1 Introduction**

The main tasks of the department are the education of the students from the faculties: Pharmacy, speciality “Hygiene and Epidemiology”, primary specialisation, postgraduate training in residency, general and specific improving of microbiologists; training of ophthalmologists, otolaryngologists, epidemiologists and hygienists.

### **7.2.2 Primary Aims**

Assimilation of microbiology at the faculty of Stomatology within the framework of 3 fundamental disciplines: bacteriology, virology and immunology with specializing aspects for the future stomatologists.

The study of microorganisms, ethiological factors, pathogenesis, microbiological diagnosis, prophylaxis and the specific and rational antimicrobial treatment of pathological processes in Stomatology.

### **7.2.3 Main Objectives**

Main objectives in teaching microbiology, virology and immunology are:

- nomenclature, systematics and study of microorganisms;
- Physiology, genetics and ecology of microorganisms;
- Microbiological and molecular-biological principles of anti microbial therapy;
- Infection process, non-specific and specific factors of macroorganisms resistance and immune system;
- Special microbiology;
- Special virology;
- Clinical microbiology;
- Oral microbiology.

### **7.2.4 Hours in the Curriculum**

108 hours are planned and accomplished, including theoretical classes –36 hours, practical classes – 72 hours.

### **7.2.5 Method of Learning/Teaching**

The theoretical classes are held according to the study plan. During the practical classes practical skills and theoretical knowledge are analyzed and assessed. The working place is equipped with necessary materials.

### **7.2.6 Assessment Methods**

The assessment of the knowledge is done by means of tests, totals and examinations.

### **7.2.7 Strengths**

Students do microbial diagnostics of specific and non-specific pathological processes, determine preventive measures and reasonable treatment. In addition, they master quick methods of diagnostics, including the ones worked out at the department.

### **7.2.8 Weaknesses**

At present, the department does not possess the necessary number of computers, microscopes, culture media, reactivities.

### **7.2.9 Innovations and Best Practices**

At the department the students are informed and trained about new rapid methods of microbiologic diagnostics elaborated at the department:

- processes caused by enterobacteria;
- staphylococcal infections;
- infection caused by p. aeruginosa;
- diphtheria;
- candidosis.

### **7.2.10 Plans for Futures Changes**

There is a need of increasing the number of hours for microbiology studies up to 180 hours.

### **7.2.11 Staff Names, Qualifications and E-mail Addresses**

Gheorghita Teodor – C	Chief of Department, Professor, Ph.D.	None
Anghel Rita	Associate Professor, Ph.D.	None
Balan Greta	Associate Professor, Ph.D.	None
Puscas Nicolae	Assistant	None

### **Visitors Comments**

See Visitors General Comments below

## **7.3 GENERAL PATHOLOGY**

**Responsible person:**

Dr. Ieremia Zota  
e-mail: ieremia  
[zota@yahoo.co.uk](mailto:zota@yahoo.co.uk)

Fax:

### **7.3.1. Introduction.**

The Pathology is taught for 1 year (V semester). A special attention is given to the Pathology of teeth, maxillas, organs of oral cavity, salivary glands.

### **7.3.2 Primary Aims.**

The main aims of this department consists in learning the structural changes in various pathology, especially the dentistry disorders.

### **7.3.3 Main Objectives.**

The students have to obtain durability knowledge of the following.

- The necrotic and degenerative processes.
- The blood and lymphatic circulation disorders.
- Inflammation and regenerative processes.
- The adaptation and compensation processes ( hypertrophy, atrophy, metaplasia, dysplasia).
- Notion about neoplasia.
- Tumour-like condition of oral cavity, salivary glands. Non-dentistry neoplasia. Dental disorders, non-decayed lesions, dental decay.
- Pathology of dental pulp, apical pericementitis, periodontogen disorders (gingivitis, periodontitis).
- Pathology of oral cavity ( stomatitis, glossitis, keilitis).
- Pathology of salivary glands (sialodenitis, sialolithiasis).
- Pathology of maxilla (abnormality, inflammatory lesion, cysts, genetic and metabolic disorders).
- Notion about heart and vascular disease, pulmonary disease, gastrointestinal disease, kidney and urinary tract disease. Oral manifestation in this pathology.
- Catching disease. Pathology of catching processes and their oral manifestation (Rubella, Pojar, Chicken pox, Scarlet fever, Diphteria, Tuberculosis, Syphilis, Actinomycosis, Candidomycosis).

### **7.3.4 Hours in the Curriculum**

Semester V - 68 practical hours  
- 34 hours for lectures

### **7.3.5 Method of Learning/Teaching**

Every practical hours the teacher checks the initial knowledge of the students and gives some explanations over unmanageable questions. There are a lot of micro-

and macropreparates, pictures made by electron microscope, slides, which help the students to understand better the topics. During every seminar the students are given oral or written test.

### **7.3.6 Assessment Methods**

The students are examined after every 5 practical lectures. They are given written tests and practical part consisting in micropreparates examination and they have to determine the right diagnosis. If some of them don't take the exam, have the chance to do it during a month. At the end of V semester the students have to take the examination to be promoted to the next step.

### **7.3.7 Strengths**

The responsibility for study and the aim of the chosen topics is clearly defined for the students at the each seminar. Our department provides for the teaching aids the necessary didactic materials, the teacher gives explanation over every topic, estimates the student's knowledge, at every test – control and examination.

### **7.3.8 Weaknesses**

There are no difficulties in studying this object.

### **7.3.9 Innovations and Best Practices**

The best students have possibility to take part in scientific investigation. The teachers give the topics for morphologic studies based on biopsy and necropsy material made at the pathology section of the Republican Hospital.

### **7.3.10 Plans for Futures Changes**

Adding multiple-choice tests into the assessment methods that are used. We have to prepare many problems-situation based typical events. Also it has to enrich the arsenal of micro-and macropreparates.

### **7.3.11 Staff Names, Qualifications and E-mail Addresses**

Dr. Ieremia Zota	Chief of Department, Professor, Ph.D.	None
Dr. Sergiu Rusu	Associate Professor, Ph.D.	None
Dr. Constantin Marian	Associate Professor, Ph.D.	None
Dr. Grigore Vudu	Associate Professor, Ph.D.	None
Dr. Radu Niguleanu	Associate Professor, Ph.D.	None
Dr. Elena Reutkii	Associate Professor, Ph.D.	None
Dr. Eugen Melnic	Associate Professor, Ph.D.	None

Dr. Ecaterina Foca

Associate Professor,  
Ph.D.

None

### **Visitors Comments**

See Visitors General Comments below

## **7.4 PATHOLOGICAL PHYSIOLOGY / PHYSIOPATHOLOGY**

### **Responsible person:**

Dr. Vasile Lutan, Professor, Head of Department  
e-mail: vlutan@mail.ru Fax: —

#### **7.4.1 Introduction**

The discipline Physiopathology shapes the dentists conception about the general laws concerning the origin, appearing, evolution and the of the disease and the functional modifications in sick organism on the cell, tissue, organ, system and organism levels. The discipline in taught at the 3<sup>rd</sup> year, the 5<sup>th</sup> semester.

#### **7.4.2 Primary Aims**

- Studying the general laws of the origin, the development and the final stages of pathological processes: Inflammation, allergy, fever, blood circulation disorders, necrosis, dystrophy, neoplasia and others.
- Studying the functional modifications in the central nervous, endocrine, cardiovascular, respiratory, digestive and excretory systems in case of disease.
- Physiopathology informs students about the general modifications in organisms provoked by the oral pathology and about the manifestations of organs pathology at the oro facial level.

#### **7.4.3 Main Objectives**

At the end of the course student are able to understand:

- the features of dental and oral inflammatory processes in the pulp and the periodontal tissue.
- the ways of pathological processes generalisation in oral cavity.
- the auto-immune and immunodeficient allergic processes in the oral cavity.
- the features of lesions and reparative processes in oral cavity.
- haemostatic disorders (haemoragic diathesis, trombosis) and their importance in stomatology.
- the mineral metabolism disorders (Ca; P; Fe ) and their importance in stomatology.
- A, C, PP, B12 hypovitaminosis manifestations in the oral cavity.
- tooth ache mechanisms.



- digestion disorders in salivary glands, teeth and the oral cavity, particularly affections of the mucosa.
- the general complications of oro facial origin: Septic endocarditis, pneumonia, otitis, meningitis.

#### **7.4.4 Hours in the Curriculum**

The total number of hours is 120; theoretical course:40 hours, practical hours:80.

#### **7.4.5 Methods of Learning/Teaching**

- Teaching the theoretical course for 30-40 students, which include accounting the main theoretical postulates with demonstration of slides and other media.
- Reproduction the pathological processes and schemes studying them using microscopy methods, biochemical tests at laboratory lessons in small groups of 7-10 students.
- Demonstrating various pathological processes by tapes and slides.
- Self-study, using computer programs.

#### **7.4.6 Assessment methods**

The current assessment of students: Assessment of knowledge during the laboratory lessons oral, written and per computer (once a week).

General assessment of knowledge about one compartment of the discipline (2-3 times per semester) oral, written and per computer.

Practical skills are assessed during the laboratory exercises and at the end of the semester.

Knowledge of the whole discipline is assessed by a general examination at the end of the 5<sup>th</sup> semester.

#### **7.4.7 Strengths**

- Selective teaching of stomatological profiled questions.
- The link between theoretical questions and stomatological practice (therapy and others).
- Individual work of the students at practical lessons in reproduction and studying pathological processes.

#### **7.4.8 Weaknesses**

Lack of equipment and computer programs.

#### **7.4.9 Innovations and Best Practices**

Self-education, individual computer assessment.

Students participation in scientific work.

#### **7.4.10 Plans for Future Changes**

Application of virtual educational methods.

#### **7.4.11 Staff Names, Qualifications and e-mail Addresses**

Dr. V.Lutan	Chief of Department, Professor, Ph.D.
Dr. A.Iarovoi	Professor, Ph.D.
Dr. P.Cazacu	Professor, Ph.D.
Dr. V.Gafencu	Associate Professor, Ph.D.
Dr. T. Zorkin	Associate Professor, Ph.D.
Dr. E. Bors	Associate Professor, Ph.D.
Dr. S.Todiras	Lecturer, Ph.D.
Dr. C.Hangan	Assistant
Dr. A. Visnevschi	Assistant
Dr. O.Galbur	Assistant

#### **Visitors General Comments**

The Visitors did not have an opportunity to discuss in detail this important components of the Faculty of Stomatology's education and training, particularly in this age of rapid development in pharmacology and therapeutics.

As for all para-clinical courses the Visitors advocate an integration of learning with Dental Medicine and especially a realistic appreciation of what a newly graduating dentist requires in order to protect his or her patient under treatment.

The Visitors recognised that the Course in Pharmacology is specifically tailored for the needs of a dentist, but recommend explicitly the avoidance of detail that rapidly becomes out of date.

Pharmacology should fully integrated with the oral health curriculum and that an educational methodology of problem-oriented learning be employed with an emphasis on fundamental principles and learning how to cope with the exponential growth of knowledge in pharmacology and therapeutics taking advantage of new information and communication technologies. So, the Visitors support the request of the Department of Pharmacology in this area.

As far as information was given, microbiology, general pathology and pathophysiology are taught as exclusively as for medical students, ignoring the special and unique needs for dental students.

Please note the recommendations in respect of overall curriculum and a suggested "Curriculum Committee" above.

## **Section 8 Human Diseases**

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### **8.1 INTERNAL MEDICINE**

#### **Responsible person:**

Dr. Sergiu Matcovshi, Professor, Head of Department, Chair #5  
e-mail: — Fax: —

#### **8.1.1 Introduction**

Internal Medicine is one of the basic disciplines in rendering higher education to medical specialists in different fields. The course of Internal Medicine is concerned with the study of internal diseases; particularly focussed at those diseases which manifest various pathologic consequences and/or affect the oral cavity.

#### **8.1.2 Primary Aims**

Mastering of theoretical and practical knowledge of Internal Medicine and the development of clinical thinking by the stomatological students.

#### **8.1.3 Main Objectives**

The students should at the end of the course be able:

- to understand and know the methods of examining patients (clinically and para-clinically)
- understand and know the most important nosologic forms of the internal organs affections.
- to make a deep analysis of clinical cases, of the mechanisms of development of clinical and para-clinical manifestations of the internal diseases;
- to formulate and to argue preliminary diagnoses;
- to argue para-clinical investigations, the necessity of confirmation of clinical diagnosis;
- to formulate and to argue clinical diagnoses;
- to elaborate on and to argue individual treating programs;
- to elaborate and to argue programs of prevention;
- to give medical assistance in emergency cases;
- to accomplish the practical skills, necessary for giving medical assistance.

#### **8.1.4 Hours in the Curriculum**

In the 3<sup>rd</sup> year

- during the 5<sup>th</sup> term: 46 hours; 12 for the course, 34 for practical lessons and 6 hours of individual work.
- during the 6<sup>th</sup> term: 68 hours; 17 for the course, 51 for practical lessons and 7 hours of individual work.

In the 4<sup>th</sup> year

- during the 7<sup>th</sup> term: 46 hours; 4 for the course, 32 for practical lessons and 4 hours of individual work.

- during the 8<sup>th</sup> term: 38 hours; 6 for the course and 32 for practical lessons.

### **8.1.5 Method of Learning/Teaching**

Lectures and practical lessons. In practical lessons theoretical knowledge is applied in clinical situation: One or several patients are examined, situational problems are solved. The main object of study is the patient. All themes are discussed, obligatory showing clinical cases. Some themes can be studied individually, under professor's supervision.

### **8.1.6 Assessment Methods**

- Daily appreciation of the knowledge level for the actual theme and of the quality of practical activity (applying a 10 point marking scale).
- Tests at the end of each term: Appreciation of the gained practical skills and computer tests.
- Appreciation of the clinical history of a patient during the 8<sup>th</sup> term.
- Examination at the end of the 8<sup>th</sup> term: three tests, i.e. a computer test, appreciation of practical skills and an oral examination.

### **8.1.7 Strengths**

- Staff is extremely experienced in the subject.
- All themes are studied, obligatory showing clinical cases, at a patient's bed.
- Using para-clinical diagnostic laboratories (biochemical, radiological, functional diagnostic labs, etc.).
- Using computer technologies in the process of education (the department has a computer class, training and assessment programs, multimedia materials on CDs, Internet access).

### **8.1.8 Weaknesses**

The department hasn't got the equipment which is necessary for modern scientific research.

### **8.1.9 Innovations and Best Practices**

- The method of investigation of neutrophils' phagocytic activity.
- Use of computer programs in the process of studying and assessing Internal Medicine's knowledge and training.
- Doppleroscopy and dopplerography in diagnosing cardiovascular diseases.
- Treatment of arterial hypertension with Cordaline R-5.

### **8.1.10 Plans for Futures Changes**

- Making the Internal Medicine curriculum better and up-to-date.
- Using computer technologies in the process of education on a larger scale.

### **8.1.11 Staff Names, Qualifications and e-mail Addresses**

Sergiu Matcovschi	Assistant Professor, Ph.D.	—
	Head of Department	
Aurel Danilov	Professor , Ph.D.	

Filip Ambros	Assistant Professor, Ph.D.
Ina Novohatnii	Assistant Professor, Ph.D.
Viorel Florea	Assistant Professor, Ph.D.
Natalia Capros	Assistant Professor, Ph.D.
Nelea Draguta	Lecturer, Ph.D.
Leonid Turcan	Lecturer, Ph.D.
Natalia Sebov	Lecturer
Vasile Toma	Lecturer
Valentina Badarau	Lecturer
Eugen Tcaciuc	Lecturer
Irina Colpacova	Laboratory Assistant
Rodica Tabur	Laboratory Assistant

### **Visitors Comments**

See Visitors General Comments below

## **8.2 GENERAL SURGERY**

### **Responsible person:**

Dr. Evstafii Cicala, Professor, Head of Department  
e-mail: — Fax: —

#### **8.2.1 Introduction**

Stomatology is a branch of Surgery, that's why study of Surgery, especially of General Surgery, by the future stomatologists has a great contribution in forming of the stomatological specialist. The second-year and the third-year stomatological students study the course of General Surgery and Semiology during the autumn term. The third-year students during the spring term and the fourth-year students during autumn term study surgical pathology at the chair of General Surgery and Semiology.

The pedagogical accent is made on General Surgery in the stomatological faculty, where the students study asepsis and antisepsis, surgical infection and combating of it. They also study haemorrhage and hemostasis, anaesthesia, especially local anaesthesia, the treatment of the shock, the basis of reanimation, the peculiarities of the examination of a surgical patient and so on.

#### **8.2.2 Primary Aims**

To claim from the stomatological students the knowledge of:

- The principles of asepsis and antisepsis,
- The diagnostics and the treatment of haemorrhage,
- The physiological and surgical hemostasis,
- The methods of anaesthesia, especially of local anaesthesia,
- The methods of treatment and prophylaxis of surgical infection,

- The principles of the examination of a surgical patient,
- The main surgical illness.

### **8.2.3 Main Objectives**

At the end of the course stomatological students will be able to:

- apply in their medical practice the methods of the provisional and the ultimate surgical hemostasis,
- determine the blood group Rh-antigen and to fulfil blood transfusion,
- work as a surgeon in the operational unit,
- render the emergence assistance in cases of: trauma (fracture, luxation), burn, terminal states( shock, collaps),
- perform clinical examination of surgical patients, appreciate the results of paraclinical investigation,
- work as a general surgeon assistant without having any special training,
- work as a general surgeon after the raising the level of their skill.

### **8.2.4 Hours in the Curriculum**

According to the curriculum, the subject of General Surgery and Semiology is lectured on to the second-year (3<sup>rd</sup> and 4<sup>th</sup> term) and the third-year (the 5<sup>th</sup> term) stomatological students.

The curriculum foresees 14 hours of lectures and 64 hours of practical training( 90 minutes per week ). Stomatological students go on studying General Surgery and Semiology being the third-year students (the 6<sup>th</sup> term). According to the curriculum they have 16 hours of lectures and 45 hours of practical training (135 minutes per week). Stomatological students also study Surgical Pathology in the 3<sup>rd</sup> and 4<sup>th</sup> year (i.e. the 6<sup>th</sup> and 7<sup>th</sup> term). There are 32 hours of lectures and 88 hours of practical training.

The educational didactic process is performing according to the program approved by the Central Didactic Council.

### **8.2.5 Method of Learning/Teaching**

Stomatological students learn General Surgery and Semiology, Surgical Pathology using the manuals. But the teaching is adapted for stomatological students. They receive additional knowledge during the practical training.

### **8.2.6 Assessment Methods**

Stomatological students study General Surgery and Semiology during one year and a half. The students' knowledge is appreciated during discussions, by the tests and they have to pass the examination at the end of the V term in the III year. Surgical Pathology is studied by them during the 6<sup>th</sup> and the 7<sup>th</sup> term. There is an examination at the end of the course too.

### **8.2.7 Strengths**

The program of teaching is composed according to the peculiarity of Stomotology.

### **8.2.8 Weaknesses**

There is a lack of computers.

### 8.2.9 Innovations and Best Practices

Patients, surgical approaches, surgical technique, technique of bandaging are demonstrated during the practical training.

### 8.2.10 Plans for Futures Changes

It is planned to supply the chair with computers, to fulfil the networks connect.

### 8.2.11 Staff Names, Qualifications and e-mail Addresses

Evstafii Cicala	University Professor, M.M.Sc.	—
Victor Curca	Lecturer, M.D.	—
Traian Beschieru	Lecturer, M.D.	—
Ion Parus	Lecturer, M.D.	—
Vasilie Poliska	Lecturer, M.D.	—
Filaret Moraru	Lecturer, M.D.	—
Alexei Zaporojan	Lecturer, M.D.	—
Sergiu Chitic	Assistant	—
Gheorghe Popa	Assistant	—
Andrei Lesco	Assistant	—
Gheorghe Cristalov	Assistant, M.D.	—
Vasilie Bunescu	Assistant, M.D.	—
Dumitru Casian	Assistant, M.D.	—
Marcel Sochirca	Assistant, M.D.	—

### Visitors Comments

See Visitors General Comments below

## 8.3 OPHTHALMOLOGY

### Responsible person:

Dr. Eugen Bendelic, Head of Department, Ph.D.  
e-mail: bendelic@mail.md Fax: —

### 8.3.1 Introduction

The Course of Ophthalmology is an integral part of the Course of General Medicine and Surgery. Students study ophthalmology in the 3<sup>rd</sup> year of studies.

### 8.3.2 Primary Aims

- Knowledge of pathological processes within stomatological and ophthalmological diseases.
- Knowledge of etiopathogenesis of visual analyzer diseases, establishment of diagnosis and the necessary treatment.

### **8.3.3 Main Objectives**

The students must know

- the eye socket structure and its communication with paranasal sinuses.
- the consequences of some stomatological diseases on the ocular globe.
- the most frequently used medicines in ophthalmology.
- the principle of performing some methods of ophthalmological examination such as the establishment of the visual acuity, visual field, chromatic sense etc.
- the clinics and treatment of urgency cases in ophthalmology – acute glaucoma, retina vascular accidents, ocular globe combustion, penetrating wound of ocular globe etc.

### **8.3.4 Hours in the Curriculum**

The course of ophthalmology is taught in the 3<sup>rd</sup> year of studies and comprises 61 hours: 10 lecture hours and 51 practical hours.

### **8.3.5 Method of Learning/Teaching**

The theoretical part is taught at lectures; the taught material, clinical cases and ophthalmological methods of examination are discussed at practical hours.

### **8.3.6 Assessment Methods**

Assessment of knowledge is performed at each practical hour and at the end of the course through a marked credit, which includes 2 parts: Tests and oral examinations.

### **8.3.7 Strengths**

- The course is taught by experienced lecturers who know the material very well;
- The course can be taught in Romanian, Russian, French and English, if necessary;
- The students get theoretical knowledge as well as practical skills, taking active part at patients' examination.

### **8.3.8 Weaknesses**

Insufficient technological - illustrative utilities.

### **8.3.9 Innovations and Best Practices**

- Student's theoretical knowledge assessment at each theme of the course at each practical class;
- Assessment of practical skills and the capacity of clinical analysis of the student by examining the patients, presenting and discussing clinical cases in class.

### **8.3.10 Plans for Futures Changes**

- Continuous equipping of the study halls with modern technological - illustrative materials;
- Use of virtual technologies in the process of studies.

## **Visitors Comments**

See Visitors General Comments below



## **Visitors General Comments**

The study of the subjects broadly covered by the term "Human Diseases" (i.e. General Medicine and General Surgery and their related subjects) are divided into several segments with much duplication and excessive and some irrelevant detail. The dentist must have a sound basis in general medicine in order to provide a more holistic approach to patient care. Few will dispute that principle. However the question must be raised as to the level of detail that is necessary in order to have a dentist competent in these areas as they might apply to his or her daily activities. Whilst the principles of understanding the implications of systemic diseases as they would impinge on oral health and disease and vice versa are fully accepted there is a limit as to what can be achieved in a five year training period. These subjects cannot be taught to a level of detail that compromises the time required to train a dentist to be competent in the routine elements of primary dental care.

Another important observation relates to the methods of education and training in human diseases. There are no apparent educational objectives as to what should be expected of a graduate on completion of the course and no outcome measurements.

Added to this is the serious concern that dentists could be expected to have any realistic competence in such important areas where they have only been exposed to a very theoretical education and even more important no further training is offered when a need for this information might arise it might have been so long since their theoretical training that their practical abilities will be insufficient to safely handle the case.

These serious reservations from a team of Visitors mainly from EU-type training programs must not be interpreted to imply that these subjects are unimportant to the dentist. The opposite is the case. For these reasons we strongly recommend that the emphasis should be placed on fundamental principles of clinical and realistic competences that need to be maintained over a lifetime of professional practice. Cardio-pulmonary resuscitation being one important example.

The Visitors appreciate the efforts made in order to give the students a sound basis for their studies and education in the human disease. However, if this program in Dental Medicine is to be allowed approach the system of education in the European Union there needs to be a radical restructuring of the medical sciences for students of Dental Medicine and focusing on outcome analysis. We strongly advise that these subjects should be more integrated with the oral health care curriculum and that an educational methodology of problem orientated learning be employed with an emphasis on fundamental principles and learning how to cope with the exponential growth of knowledge in the medical sciences taking advantage of new information and communication technologies.

The Visitors appreciate the efforts made in order to give the students a sound basis in patho-anatomy for their studies and education in Oral Medicine. However it is recommended that these subjects should be more integrated into the oral health curriculum and that an educational methodology of problem-oriented learning be employed with an

emphasis on fundamental principles and learning, taking advantage of new information and communication technologies.

***In summary:*** There is a considerable over-load and the subjects of this Section could be integrated and priorities identifies as to what is required for students of dentistry.

Please note the recommendations in respect of overall curriculum and a suggested "Curriculum Committee" above.

## **Section 9 Orthodontics and Child Dental Health**

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### **9.1 CHILD DENTAL HEALTH**

Dr. Iurie Spinei, Ph.D, Pediatric dentist  
e-mail: [ispin@moldovacc.md](mailto:ispin@moldovacc.md) Fax:

#### **9.1.1 Introduction**

The Department of Pediatric Stomatology includes the following disciplines: pedodontics, pediatric oro-maxillo-facial surgery, orthodontics and preventive dentistry. The department was found in 1986 according to the order N#80 of the Ministry of Health and rector of the university (LC 678 from Sept. 18<sup>th</sup>, 1986).

#### **9.1.2 Primary Aims**

- To teach peculiarities of the dental and oral diseases clinical characteristics, diagnostics and treatment in children;
- To provide the students with the bases of theoretical knowledge and practical skills in pediatric dentistry.

#### **9.1.3 Main Objectives**

- To prepare dental students with high theoretical knowledge and practical skills in all compartments of pediatric stomatology: pedodontics, oro-maxillo-facial surgery and orthodontics;
- To develop clinical thinking in examining children of different age groups;
- To teach peculiarities of diagnostics and treatment of carious decay, pulpitis, periodontitis and oral mucus lesions in children of different age groups;
- To teach peculiarities of diagnostics and treatment of oral infection, traumas, congenital disorders and neoplasm in children.

#### **9.1.4 Hours in the Curriculum**

Semester VII – 32 hours of pedodontics in clinics;

Semester IX:

Pedodontics – 10 hours of lecturing; 90 hours of clinical course;

Pediatric OMF surgery – 8 hours of lectures; 54 hours of clinical course.

Semester X:

Pedodontics – 16 hours of lectures; 102 hours of clinical course;

Pediatric OMF surgery – 10 hours of lectures; 60 hours of clinical course.

#### **9.1.5 Method of Learning/Teaching**

Learning/Teaching process is accomplished through lecturing, student's observation of the clinical work done by the professor, discussions of the clinical cases, self-assessment multiple choice testing, studying from the textbooks, working on children under professor's supervision, preparing the histories of the disease and clinical exami-

nations.

### **9.1.6 Assessment Methods**

During every day class the knowledge is being assessed using questionnaires, clinical case discussions. In the end of each semester students take oral and/or multiple choice testing.

The final state examination in Pediatric Stomatology, taken in the end of Semester 10, includes assessment in Orthodontics using three different tests: practical skills testing (clinical examination with treatment planning), multiple choice test and oral examination.

### **9.1.7 Strengths**

- Clinical education in small groups (5-7 students);
- Continuous clinical training in blocks;
- Highly qualified professors are working with the students;
- Integration of Preventive stomatology with Pediatric stomatology;
- The syllabus foresees teaching pediatric stomatology topics after studying them in therapeutic stomatology and OMF surgery courses.

### **9.1.8 Weaknesses**

Lack of training clinical facilities.

### **9.1.9 Innovations and Best Practices**

- Teaching in small groups (5-7 students per class);
- The syllabus foresees teaching theoretical and clinical parts together;
- Close co-operation with other dental and medical disciplines.

### **9.1.10 Plans for Futures Changes**

- Continuous development of the complex dental treatment concept of the pediatric patients;
- Re-equipping Pediatric Stomatology Department with up-to-date teaching facilities.

### **9.1.11 Staff Names, Qualifications and E-mail Addresses**

Dr. Pavel Godoroja	Chief of Department, Dean of the Faculty, Professor, Ph.D.
Dr. Siminovici Vladimir	Associate Professor, MD
Dr. Botnari Aurelia	Associate Professor, MD
Dr. Ciumeico Igor	Associate Professor, DDS
Dr. Dulghieru Tamara	Associate Professor, DDS
Dr. Busmaciu Ion	Associate Professor, DDS
Dr. Manascurta Ghenadie	Associate Professor, DDS
Dr. Railean Silvia	Associate Professor, Ph.D.
Dr. Spinei Iurie	Professor, MD

Dr. Lupan Ion

Associate Professor, MD

### **Visitors Comments**

More problem related teaching and learning should possibly be facilitated and a more comprehensive approach to children care is recommended, together with a more integrated and systematic collaboration with other courses, in particular with orthodontics and paedodontics.

## **9.2 ORTHODONTICS**

### **Responsible person:**

Dr. Valentina Trifan

e-mail: —

Fax: —

### **9.2.1 Introduction**

Orthodontics is a difficult specialty which has a special place among the disciplines of paediatric stomatology. At the department students start to study orthodontics in year IV.

### **9.2.2 Primary Aims**

To give knowledge and practical skills to students concerning diagnostics, treatment and prophylaxis of dento-maxillary anomalies at children.

### **9.2.3 Main Objectives**

- To identify children normal growth and development;
- To understand the relation between dentition development and facial growth;
- To appreciate the use of fundamental applications in orthodontics;
- To develop clinical skills in orthodontic apparatus use;
- To amplify the integration of orthodontics with paediatric stomatology and other specialties;
- Knowledge and practical skills formation at all orthodontics department;
- Clinical thought formation at the orthodontic examination of different aged children.

### **9.2.4 Hours in the Curriculum**

For orthodontic teaching and training are scheduled

- for year IV (at the propaedeutic level): totally 42 hours, 36 hours from which are practical hours and 6 hours lectures,
- in year V: totally 124 hours, 104 hours from which are practical hours and 20 hours – lectures.

In total 166 hours, 140 hours are practical hours and 26 lecture hours.

Academic groups at practical works on orthodontics are formed for the work in the poli-clinic – groups of 5-6 students. The schedule structure of practical works for the 4<sup>th</sup> and the 5<sup>th</sup> year – the modular method with lesson duration of 6 hours.

Production practice at paediatric stomatology is organized after semester IX (3 weeks), including orthodontics (1 week – 36 hours), as helping the orthodontist.

### **9.2.5 Method of Learning/Teaching**

- Theoretical instruction through course taking.
- Theoretical instruction through testing.
- Practical instruction through clinical exercises supervised by professors.
- Instruction based on clinical cases.
- Instruction based on clinical situations and models of study.

The program includes the list of practical skills which every student is to master while taking courses within the framework of the chair. Practical skills represent the doctor's actions necessary for the accomplishment of the diagnostic prophylaxis and treatment of stomatological diseases of children from birth till the age of 18 (examination, percussion, palpation, diagnosis and treatment of dento-maxillar anomalies of children).

The student is to be able to make use of the radiological data, biometric and clinic-biological research to give the correct diagnosis and perform the orthodontic treatment.

At practical hours, case demonstrations, models of study, teleradiograms, orthopantomograms, biometrical studies and students' practical activity under the professor's observance.

Students must fill in clinical observation cards of orthodontic patients. Independent work is planned in the schedule of the faculty and is performed under direct professor's observance.

Distribution of didactic material on years within the thematic plan of lectures and practical works is not strictly established and can be modified depending on work conditions of the department.

Work with children and their parents requires a great responsibility from the professor.

### **9.2.6 Assessment Methods**

Instruction based on problem solving is used throughout the whole curriculum. Instruction, based on courses, is introduced in the 4<sup>th</sup> year. The purpose of the instructive course based on cases is to allow the students to apply, first of all, the knowledge obtained to solve clinical problems. The selected cases are clinically based and multifaceted and require orthodontic intervention.

The students study diagnostics, orthodontic treatment planned in the clinic. They also have an opportunity to treat patients, thus getting experience.

The permanent assessment is used to find out every student's theoretical knowledge and clinical performance. The clinical activity is evaluated after every clinical examination. Theoretical knowledge is evaluated through grid tests, questionnaires at the end of each study compartment which are based on situational problems. Tests are used during every year of study.

The theoretical clinical competence is determined through testing, examinations and practical competence of presenting the patient's observation file, clinical probation credits, the repeated clinical cases and, finally, the treatment.

The assessment of knowledge acquired is accomplished in form of a final test at the end of the 8<sup>th</sup> semester – in propaedeutics in orthodontology, in the 9<sup>th</sup> semester there is the promoting examination in paediatric stomatology which contain the questions from orthodontics based on the material studied in the 8<sup>th</sup> and 9<sup>th</sup> semester.

The study of orthodontics is finished with the state examination after the 10<sup>th</sup> semester which contains questions to this subject and consists of three tests: practical test (with the patient), test and the examination in front of the Examination Board.

### **9.2.7 Strengths**

- Orthodontic propaedeutics (preclinical course) integration with the clinical course assures an ample and harmonious training;
- Integration of all paediatric stomatology disciplines: paedodontics, paediatric oro-maxillo-facial surgery, orthodontics;
- Integration of orthodontics with stomatological disciplines (therapeutic stomatology, orthopaedic stomatology, oro-maxillo-facial surgery);
- Orthodontic integration with fundamental disciplines ( human anatomy, physiology, biochemistry, morphopathology, physiopathology, microbiology etc.), medical profile ones (paediatrics, internal diseases, ORL, etc);
- Preclinical and clinical training in small groups (5-6 students) and individual training.
- Continuous clinical training on study establishments;
- Lecturers with experience and sufficient clinical training.

### **9.2.8 Weaknesses**

- Lack of equipment, casting, phantoms, materials for preclinical preparation.
- Lack of equipment, instruments and modern materials for clinical preparation.

### **9.2.9 Innovations and Best Practices**

- Training in small groups (12 persons in the preclinical course and 5 persons in the clinical course).
- The educational program foresees combination of theoretical knowledge with practical knowledge, training continuity – preclinical courses followed by clinical courses.
- Complex, integrated preparation with other specialties.

### **9.2.10 Plans for Futures Changes**

- Continuous development of the complex treatment concept of dento-maxillary anomalies at children.
- Improvement of the supply of the department with didactical materials and instruments, materials and modern stomatological equipment.

### **9.2.11 Staff Names, Qualifications and e-mail Addresses**

Pavel Godoroja	Professor, Ph.D.	—
Iurie Baidauz	Lecturer, M.D.	—

Ion Fedelniciuc	Lecturer	—
Gheorghe Mihailovici	Lecturer	—
Valentina Trifan	Lecturer	—

### **Visitors Comments**

The course has clear aims and objectives. It seems to be well organised and similar to other European schools. Small group teaching has been introduced. The space and the number of dental chairs are sub-optimal.

Staff appears to spend adequate time with the students in discussion and there is a strong stress on small groups seminars on treatment planning and evaluation of outcomes. A little too much time appears to be spent during semester 1 on basic wire bending and technical exercises which might not be very useful in the future clinical activity of a general practitioner.

At a post-graduate level complex treatment (including orthognatic procedures planning with the Department of Oral Surgery) is dealt with.

The 4 students appear to come mostly from foreign countries even though 1 job is reserved for Moldovan students (economic reasons, higher fees for foreigners). There has been a suggestion that more specialists are needed in the country.

Case load between students and staff is about 120 patients/year. The students are expected to produce 10 finished cases at the end of their course, similar to an international Board.

No screening method for case selection and input of patients and no informatic coding of patients appears to be in use at any level - see Global congress Report from the Prague DentEdEvolves meeting (4.2).

The department would benefit from more reading material and an updating of the library, with access to the international literature. Some problem-orientated learning rather than simple records and patients' examination by the students might be recommended and would implement experience also at undergraduate level.

There is no indication on the need of treatment in the population (a figure of about 50% of the children needing orthodontics was quoted). This is a serious deficiency which this Department could address for Government agencies and we commend such an initiative for consideration. A national survey could be useful in planning services and manpower at both public health and private level and leadership in this would come from the Department.

The Visitors would not interfere with approaches to resolve the problem of untreated orthodontic cases but were concerned that short-term pragmatic approaches might cause serious long term complications for the community. Orthodontic treatments in the hands of inadequately trained personnel, however well-intentioned, should be seriously questioned. The Visitors stress that there is no element of protectionism of orthodontists as this was written by a person who is not an orthodontist.



Also some stress on preventive and interceptive orthodontics is indicated, with more integration with the Departments of Dental Public Health and Prevention and Paediatric Dentistry.

## **Section 10 Public Dental Health and Prevention**

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### **Responsible person:**

Dr. Aurelia Spinei, Ph.D, Pediatric dentist  
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### **10.1 Introduction**

The Course of Public Dental Health now is incorporated into the problem-based learning curriculum, particularly throughout the third and fourth years. Its training focuses at medical statistics, Public Health, the various forms of medical assessment and basic medical and social problems.

### **10.2 Primary Aims**

The course aims at

- giving undergraduate students an understanding of the financial/legal organizational/logistical requirements in providing dental treatment, in the context of the needs of each individual patient and of the community at large.
- introducing the students to the practical aspects of organising, calculating of indications which reflect activity of dental clinics.

### **10.3 Main Objectives**

- To make the students aware that the provision of dental care has a time and cost value associated with it.
- To give the student an opportunity to understand that in order for treatment to be successful it must be compatible with the inner needs of the patient/financially acceptable to them/have the time available for the patient to be able to accept the treatment offered.
- To allow the student to understand that the use of their time has financial implications for their employing authority or for themselves when they have qualified and are practicing dentistry.

### **10.4 Hours in the Curriculum**

There are no specific hours allocated in the curriculum as this topic is covered as an integral part of both integrated patient care and Problem-Based-Learning in years 2, 3 and 4. There is a component of the clinical training in year 5 where the students work with patients in a setting more similar to actual practise than heretofore, for example each student works in his/her own room and supervision is less directive.

### **10.5 Method of Learning/Teaching**

The course is integrated into the problem-based curriculum as described above; throughout their clinical training students are responsible for appointing their own patients.

### **10.6 Assessment Methods**

Practice management is assessed on a continuous basis in the problem-based approach. Furthermore, each student has to achieve a defined level of clinical credits. The student does not gain credit if, for instance, the patient fails to attend or if the student is off the clinic for whatever reason. Thus simulating the realities of practice, where these eventualities result in a loss of income.

There is also an examination, both written and clinically, in the final Adult Dental Health examination.

### **10.7 Strengths**

The introduction of the problem-based learning concept has facilitated the incorporation of principles of practice management in a structured progressive learning process with reference to the students' stage of development.

### **10.8 Weaknesses**

All the "Business Management" skills necessary to run a single handed dental practice are not regarded in the program. These are recognized as more appropriate to be undertaken as a postgraduate in vocational training environment

### **10.9 Innovations and Best Practices**

- The clinical credit hours stimulate affective usage of facilities for the time allotted to each student and are designed to be income generation following graduation.
- The more autonomous clinical training in year five provides a more progressive link between studentship and later practice.
- Clinical credits and more autonomous treatment of patients in year five.

### **10.10 Plans for Futures Changes**

It is hoped that plans can be developed for students to visit private practices outside the academic institution to prepare them for general dental practice. Vocational training is being introduced on a pilot scheme basis and similar to the UK scheme. This has the potential to offer considerable practical benefits although it is out of the influence of the dental schools.

### **10.11 Staff Names, Qualifications and e-mail Addresses**

Dr. Siminovici Vladimир	Associate Professor, MD
Dr. Botnari Aurelia	Associate Professor, MD
Dr. Ciumeico Igor	Associate Professor, DDS
Dr. Dulghieru Tamara	Associate Professor, DDS
Dr. Busmaciu Ion	Associate Professor, DDS
Dr. Manascurta Ghenadie	Associate Professor, DDS
Dr. Railean Silvia	Associate Professor, Ph.D.
Dr. Spinei Iurie	Professor, MD, PhD
Dr. Lupan Ion	Associate Professor, MD

[ispin@moldovacc.md](mailto:ispin@moldovacc.md)

### **Visitors Comments**

Public dental health and prevention are the bases for modern dental care and treatment concepts. The Visitors appreciate the fundamental efforts which are made by staff to place all other disciplines on that basis and support the initiatives for future changes. The suggestion from the students to practice at the orphanages and other social institutions should be considered seriously.

## **Section 11 Therapeutic Stomatology**

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### **Responsible person:**

Dr. S. Ciobanu, Professor, Head of Department  
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### **11.1 PROPAEDEUTIC THERAPEUTIC STOMATOLOGY – PRECLINICAL COURSE**

#### **11.1.2.1 Introduction**

The propaedeutic therapeutic stomatological course is scheduled in year 1 and 2, in the semesters 1 to 4. Students work on phantoms with artificial and natural teeth, drawn from patients.

#### **11.1.2.2 Primary Aims**

- To let the students know and learn about the therapeutical stomatological assistance structure, anatomy, histology and teeth development, teeth annotation systems.
- Assimilation of preparation and classification of decayed cavities, obturation materials, obturation methods.
- Assimilation of teeth topographic anatomy, endodontic space, endodontic instrumentarium, radicular obturation materials and radicular obturation methods.
- Errors and complications which might appear while preparation and obturation of decayed cavities and endodontic space.

#### **11.1.2.3 Main Objectives**

- Structure and function of the stomatognathic apparatus,
- Temporary and permanent dentition,
- Teeth development,
- Terms of teeth formation and eruption and root formation of deciduous and permanent teeth,
- Classification, preparation and obturation of decayed cavities,
- Coronary and radicular obturation materials,
- Endodontic space, radicular treatment methods,
- Stomatological patient examination (therapeutic aspect).

#### **11.1.2.4 Hours in the Curriculum**

- Semester 1: 8 hours course; 34 practical hours (course – theoretical class)
- Semester 2: 8 hours course; 68 practical hours;
- Semester 3: 8 hours course; 51 practical hours;
- Semester 4: 8 hours course; 68 practical hours.

#### **11.1.2.5 Method of Learning/Teaching**

- In the 1<sup>st</sup> semester students study teeth anatomy (modulate on wax, soap, gypsum and draw in albums).
- In the 2<sup>nd</sup> semester: stomatological assistance structure, decayed cavities, their classification and preparation (on phantoms students prepare decayed cavities of the various classes according to Black and draw in albums).
- In the 3<sup>rd</sup> semester: obturation materials (composition, properties, obturation of cavities already prepared in the 2<sup>nd</sup> semester).
- In the 4<sup>th</sup> semester: endodontics on phantoms – topographic anatomy, methods and work technologies in endodontic space etc.

#### **11.1.2.6 Assessment Methods**

Paper tests, testing, simple and marked credits, practical skills and examinations.

#### **11.1.2.7 Strengths**

Training of all practical skills on phantoms necessary for clinical activity.

#### **11.1.2.8 Weaknesses**

Students don't have the possibility to work on simulators, because the department doesn't have them.

#### **11.1.2.9 Innovations and Best Practices**

- Students assimilate preparation methods of decayed cavities both on artificial and natural teeth.
- Preparation of class II cavities by the tunnel method.
- In the endodontic space it is also worked on natural teeth.
- Students draw, modulate and perform practically the necessary skills for clinical activity.

#### **11.1.2.10 Plans for Futures Changes**

To endow the preclinical course with dental simulators, drills and modern instruments.

#### **11.1.11 Staff Names, Qualifications and e-mail Addresses**

Dr. Gh.Nicolau	Chief of Department, Professor, Ph.D.
Dr. S.Sarbu	Professor, Ph.D.
Dr. A. Baraniuc	Associate Professor, Ph.D.
Dr. P.Gnatiuc	Associate Professor, Ph.D.
Dr. S.Cioobanu	Associate Professor, Ph.D.
Dr. V.Nicolaiciuc	Associate Professor, Ph.D.
Dr. N.Carcea	Associate Professor, Ph.D.
Dr. V. Musteață	Assitant
Dr. A.Terehov	Assitant
Dr. S. Popa	Assitant
Dr. V.Bodrug	Assitant

## **Visitors Comments**

See Visitors General Comments below

## **11.2 THERAPEUTIC STOMATOLOGY - CLINICAL COURSE**

### **11.2.2.1 Introduction**

Dental decay and dental pulp affections are topics to be learned and their treatment trained in the 5<sup>th</sup> and 6<sup>th</sup>, apical periodontium affections in the 7<sup>th</sup> semester.

### **11.2.2.2 Primary Aims**

- To apply in clinical practice (on patients) the knowledge gained at the course of propaedeutics (1<sup>st</sup> – 4<sup>th</sup> semester).
- To learn and possess the methods of dental cavity diagnostics, treatment and prophylaxis and its complications (endodontic skills).

### **11.2.2.3 Main Objectives**

- Dental decay – notion, classification, morbidity.
- Dental decay etiopathogenesis.
- Dental decay treatment methods ( classic and modern, including restorative therapy)
- Dental decay prophylaxis.
- Knowledge training in the field of endodontia (endodontic space, modern endodontic tools, ISO standardization, X-ray physiological apex notion, etc.).
- Affections of dental pulp and apical periodontium – notion, classification, morbidity etc.
- Etiopathogenesis of pulpal and apical periodontium affections.
- Treatment methods of the pulp and apical periodontium (classical and modern).
- Pulp and apical periodontiums prophylaxis methods.
- Errors and complications in dental decay treatment and endodontic treatment.
- Non-decayed etiology affections, notion, classification, etiopathogenesis. Treatment and prophylaxis methods.

### **11.2.2.4 Hours in the Curriculum**

Odontology: 12 course hours, 51 practical hours in the 5<sup>th</sup> semester. (course – theoretical class)

Endodontics: 12 course hours, 51 practical hours in 6<sup>th</sup> semester.  
12 course hours, 60 practical hours in 7<sup>th</sup> semester.

### **11.2.2.5 Method of Learning/Teaching**

Students come at the department where lectures are presented, after which once a week practical hours take place, with the discussion of the theme, demonstration of clinical cases and patient consultation.

Affections of apical periodontium and non-decayed aetiology are studied in the 7<sup>th</sup> semester.

Students come to the department in a module of 2 weeks where they are offered lectures and spend practical hours with the discussion of the theme, demonstration of clini-



cal cases and patient consultation, analysis of clinical situations solved by the students etc.

#### **11.2.2.6 Assessment Methods**

Students' knowledge assessment takes place at every practical hour in form of discussion, tests at the end of semester – marked credits , examinations.

#### **11.2.2.7 Strengths**

The studying of the various disciplines of therapeutic Stomatology is a continuum, more profound study and application of the knowledge in clinics (on patients) occurs successively in time.

#### **11.2.2.8 Weaknesses**

There is a lack of adequate equipment and modern apparatus both at the Department of Cariology and the Department of Endodontics.

#### **11.2.2.9 Innovations and Best Practices**

- Dental decay treatment methods using photopolymerisable composite materials and glassionomer cements.
- Use of direct and indirect lamination methods in decay and non-decayed aetiology affections treatment.
- Use of endodontic mechanic treatment methods (step back and crown down).
- Radicular canals obturation by methods of lateral and vertical condensation.

#### **11.2.2.10 Plans for Futures Changes**

To endow the preclinical course with dental simulators, drills and modern instruments.

#### **11.2.2.11 Staff Names, Qualifications and e-mail Addresses**

Dr. Gh.Nicolau	Chief of Department, Professor, Ph.D.
Dr. S.Sarbu	Professor, Ph.D.
Dr. A. Baraniuc	Associate Professor, Ph.D.
Dr. P.Gnatiuc	Associate Professor, Ph.D.
Dr. S.Cioobanu	Associate Professor, Ph.D.
Dr. V.Nicolaiciuc	Associate Professor, Ph.D.
Dr. N.Carcea	Associate Professor, Ph.D.
Dr. V. Musteață	Assitant
Dr. A.Terehov	Assitant
Dr. S. Popa	Assitant
Dr. V.Bodrug	Assitant

#### **Visitors Comments**

See Visitors General Comments below

## **Visitors General Comments**

The Visitors feel that all the restorative subjects should be integrated.

Students in general appreciate what they learn in this part of the curriculum and the attitude and dedication of the teachers towards teaching in the students is rated positively. But the students would like more real time with the patients. The following aspects were mentioned and could be a starting point for considerations to solve the problem:

- Very few of them – the Visitors were told – get actually the chance to work on prosthodontics and exodontics. The majority of the students seem to work in the areas of cariology and endodontics. So, the Visitors are concerned about graduate students who have not been trained on crowns, extractions or even endodontics.  
As indicated by the students, the reason for that could be poor management of the patient flow by school, deficiencies in the dental units and a lack of instrumentation (students seem to be obliged to purchase modern dental materials and instruments, but they cannot afford it).
- Another aspect which was highlighted by the students is that staff is allowed only to practice within the university and to have patients during the “class”. So, professors are sharing the dental chairs with their students, and some times students cannot have a patient because the professor is occupying the dental unit.
- Dental students are allowed to work until 1 p.m. only, very often they have to stop treatment at 11 a.m. They are not allowed to have patients after “class”. So, the university dental clinic is principally empty after 2 p.m.
- Finally, it was mentioned that the actual Health Care System causes problems for the practical training of students: In Soviet time dental education was completely free as dental care was. Nowadays, the School can find very few patients which want to pay or are able to pay for student treatment. On the other hand, students are financing parts of their instruments and materials. So, they want the School to pay for their treatment.

From the side of the teachers there is an “open attitude” with regard to the subject matter:

- The most severe limitation in the training program is the insufficient number of cubicles available to students. The equipment is old fashioned in both pre-clinic and clinic. First priority should be to find financial means to renew the equipment and bring it up to standard, as a simple and necessary thing as a functioning water cooling on most units may demonstrate.
- Diagnosis of all the dental diseases should be taught.
- The main focus is on cariology, restorative dentistry and oro-maxillo-facial surgery. Periodontology is heavily neglected. Therefore basic knowledge of this discipline, its diseases, registration of plaque, bleeding and pockets measurement, its prevention and treatment are strongly advised by the Visitors to be a primary aim in the curriculum. The use of periodontal probes, instruments for scaling and root planing should be taught.

- Treatment planning and decision-making was not seen to be well developed. It is strongly recommended to pay more attention to a scientific approach of treatment planning and decision making by documenting all steps in data gathering and pro's and con's of different treatment options for each patient in a structured way. Such a plan should form the basis for communication between Faculty, student and patient, and between departments.
- In Visitors' opinion there is an urgent need for a good central patient record keeping system in the School, serving the various clinical departments, including x-rays (not only, for example, orthopantomograms, but also (small) dental x ray's for the diagnosis of caries and loss of periodontal bone, as other pathological findings).
- The total time available for dental pathology or conservative dentistry is inadequate. Therefore, Visitors recommended that students start earlier in the programme (3 - 4<sup>th</sup> semester) with there pre-clinical exercises.
- The scientific training of students should be developed more. A good start could be to require written reports on the basis of a thorough critical appraisal of the literature (review).
- The use of rubber dam was noted and commended. It is recommended to introduce it in all relevant.
- Dental ergonomics and the theory and practice of four-handed dentistry should be addressed more in practice theory.
- There should be a greater emphasis on the knowledge of cross-infection prevention and the application of this knowledge in the clinic. The standard use of gloves, mouthcaps and glasses is a beginning.
- It is strongly recommended to review the endodontic training program: To train the students to make a correct diagnosis, based on X-ray information also, to use the correct instruments and to be aware of the need of aseptical conditions for treatment (using rubber dam, sterilised instruments and filling materials, adequate rinsing etc.).
- Implantology and the fabrication of related supra structures might be introduced in the curriculum, both theoretically and – at least – preclinical practically, to develop the School to a regional centre of excellence.
- Finally, for the future of the dental profession Visitors consider crucially to strengthen the professional and academic skills and attitude of the students.

## **Section 12 Prosthodontics I**

### **Orthopaedic Stomatology**

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#### **Responsible person:**

Dr. Ilarion Postolachi, Professor, Head of Department  
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#### **12.1 Introduction**

The discipline "Orthopaedic Stomatology" includes (a) a propaedeutic and (b) a clinical compartment.

The curriculum introduces the students to technologies to manufacture dental prostheses and to the prosthetic treatment of dental affections.

Within the framework of theoretical courses and clinical training the fundamental problems of pre-clinical training are studied (functional anatomy of stomatognathic system with occlusion, bio-materials, fixed and mobile dental prostheses manufacturing technology). The students are trained in drawing the stomatognathic system components and gaining the practical skills in dental prostheses manufacturing.

In the clinical phase students are trained in biological, clinical, bio-mechanical and preventing aspects of application of fixed and removable dental prostheses (coronary odontic affections, partial edentia, total edentia, periodontal affections), using up-to-date technologies.

The duration of training: a) pre-clinical training: 2 years; b) clinical training: 3 years.

#### **12.2 Primary Aims**

- To give to the students knowledge, concerning the stomatognathic system functional morphology, bio-materials and dental prostheses manufacturing technology, gaining at the same time practical skills at this compartments.
- To give to students knowledge and practical skills in dental prosthetic clinic in occlusal analysis, procedures of making a diagnosis and treating coronary odontic lesions, partial and total edentia with fixed and removable dental prostheses.

#### **12.3 Main Objectives**

- Giving knowledge and practical skills in using bio materials;
- Knowledge and practical skills in fixed and mobile dental prostheses manufacturing technology;
- Forming the clinical way of thinking at examining patients with coronary odontic affections, total and partial edentia, making the diagnosis and choosing the right position of treatment , according to the occlusal situation of making the closed dental prostheses;
- Knowledge and practical skills in preparing the support teeth according to morpho-functional modifications in the dentomaxillar system in unitary prosthetic restorations with metallic, acrylic, ceramic, metal-ceramic, metal-acrylic crowns.

- Knowledge and practical skills in determination of the morpho-functional modifications in the stomatognathic system in reduced partial edentia, indications and medical tactic in restoration the dental arch integrity with metallic, acrylic, metallo-ceramic and metal-acrylic bridges, on implants.
- Knowledge and practical skills in appreciation and description of the transformations in alveolar apophyses bone tissue, of the fibromucous tissue of the prosthetic field, in the hard tissues and periodontium of the missing teeth at morpho-functional restoring of the dental arch integrity with acrylic partially mobile and skeletal prostheses in edentia of Kennedy classes 1, 2, 3 and 4
- Knowledge and practical skills in appreciation the quality of support and functional zones in total edentia ,the order of the clinico-technical stages in restoring the dental system integrity with total mobile prostheses;
- Knowledge and practical skills in realisation the prosthetic measures in the complex of treating the periodontal affections, according to the clinical picture;
- To form the capability of integration the fundamental principles of medicine in the dental prosthetic practice with those of the biological sciences and other stomatological disciplines;
- Providing the graduates with knowledge about modern theoretical principles, clinical and laboratory procedures, for using them in practical activity in:
- Morpho-functional reconstruction of dental arcade integrity;
- Prevention of the stomatological affections;
- Maintaining the buccal cavity hygiene in the presence of dental prostheses;
- The capability to communicate with the dental technician and to make prescriptions.

#### **12.4 Hours in the Curriculum**

- The curriculum of the propaedeutic orthopaedic stomatology (stomatognathic system functional morphology, bio-materials, fixed and mobile prostheses manufacturing technology, introduction in clinic):
  - - For the 1<sup>st</sup> year: The course: 16 hours;  
Practical lessons, which includes a laboratory program with demonstrations and students' practical activity under professor's supervision: 119 hours.
    - For the 2<sup>nd</sup> year: The course: 16 hours;  
Practical lessons, which includes a laboratory program with demonstrations and student's practical activity under professor's supervision: 119 hours.
  - The curriculum in the Orthopaedic Stomatology Clinic (fixed, mobile and removable prostheses, periodontal affections, dysfunctional syndrome, post-resection dental prostheses ):
    - For the 3<sup>rd</sup> year: The course: 16 hours;

The practical lessons, which includes a clinical training program for fixed dental prostheses with demonstrations and clinical practice under professor's supervision: 120 hours.  
Clinical practice, supervised by a consulting specialist in the Clinic for Removable Prostheses: 72 hours.

For the 4<sup>th</sup> year: The course: 22 hours;  
Practical lessons, which includes a clinical training program for removable dental prostheses in partial edentia and mobile prostheses in total edentia with demonstrations and clinical practice under professor's supervision: 120 hours.  
Clinical practice, supervised by a consulting specialist in clinic at mobile prosthesis: 72 hours.

For the 5<sup>th</sup> year: The course: 26 hours;  
Practical lessons, which includes a complex clinical training program at all compartments of the discipline with demonstrations and clinical practice under professor's supervision: 192 hours.

### **12.5 Method of Learning/Teaching**

- Theoretical training by teaching the courses;
- Practical training by laboratory work, supervised by a professor;
- A program of training by clinical work, supervised by a professor,
- Training, based on clinical cases
- Training, based on clinical situations.

### **12.6 Assessment Methods**

- Pre-clinical competence by checking the knowledge at tests, credits, marked credits, examination,
- Clinical theoretical competence by tests, credits, marked credits and examinations, as the practical competence by completing the clinical history of the seen patients, clinical practice credits, repeated and for an ample verification, final presentation of clinical cases.

### **12.7 Strengths**

- Integration of the propaedeutics (pre-clinical course) of orthopaedic stomatology with clinical compartments, ensuring an ample education,
- Integration of the clinic of fixed prosthesis with the clinical features of removable prostheses,
- Clinical and pre-clinical education in small groups (5 – 6 students ) and individually,
- A team of professors with a large clinical experience and well trained in the domain of laboratory technique,
- Having the necessary credits for clinical practice,
- Continuous clinical training in blocs of studying.

### **12.8 Weaknesses**

- Insufficient endowing with up-to-date phantoms (models) for pre-clinical training,
- Insufficient endowing with up-to-date equipment, instruments and materials for clinical training.

### **12.9 Innovations and Best Practices**

- The curriculum foresee joining the theoretical knowledge with everyday practice both at pre-clinical and clinical training,
- Teaching in small groups, 12 students in pre-clinical course and 5 (6) students in the clinical course,
- Joining the classical technologies of prosthetic treatment with the modern ones, developing the methods of appreciation the position of dental arcades maximal intercuspidation with a central feature of planning and the realization of the prosthetics restoration.

### **12.10 Plans for Futures Changes**

- Gradual renovation of the equipment in clinic and dental technique laboratory improving the endowment with up-to-date materials,
- Continuous development of the conception of complex treatment in prosthetic rehabilitation with fixed and mobile dental prostheses,
- Making the clinical credits in fixed, mobile and removable prostheses more efficient by presenting the clinical cases by each student.

### **12.11 Staff Names, Qualifications and e-mail Addresses**

Ilarion Postolachi	Professor, Ph.D.	—
Victor Banuh	Assistant Professor, M.D.	—
Mihai Cojocar	Assistant Professor, M.D.	—
Vasile Gututui	Assistant Professor, M.D.	—
Nicolai Cojocar	Assistant Professor, M.D.	—
Vasile Gamureac	Assistant Professor, M.D.	—
Nicolae Bajurea	Lecturer	—
Gribenco Vitalie	Lecturer	—

### **Visitors Comments**

The main objectives seem correct but were not seen in the clinic by the Visitors.

See also Visitors' comments to Section 11.

### **Visitors General Comments**

Training in periodontology is incorporated in the Course of Therapeutic Stomatology. Visitors could find out that the students start the education in periodontology not before the 8<sup>th</sup> semester and continue during the 9<sup>th</sup> and 10<sup>th</sup> semester. Theoretical and clinical examination is undertaken in the end of the 8<sup>th</sup> and 10<sup>th</sup> semester. In consequence, pe-

riodontology is a part of the state exam during the 11<sup>th</sup> semester. The students are obliged to carefully report their patient treatment in a logbook, which follows the students during the study time in the department. The logbook describes in detail the requirements for the student in periodontology and the student registers continuously the progress of their patient treatment. The Visitors did not see such a logbook

Attempts are made to let the student treat the same patient in the department of periodontology and the departments for restorative dentistry and orthodontics. It is the Visitors concern (see the Visitors' comments in Section 11) that the content of education is insufficient to provide the students with the competencies necessary for handling periodontal diseases in routine dental practise.

However, in order to strengthen the affective aspects of the subject, education in periodontology is recommended to be initiated earlier in the curriculum. Also in view of the widespread occurrence of periodontal diseases the time in the curriculum spent on periodontal diseases is suggested to be increased.

The subject of Oral Pathology, particularly in relation to the discipline of periodontology, needs more attention from the School; this discipline is mostly part of the Oral Surgery Department in all the other schools in Europe and Northern America.

Therefore the Visitors advice that organization and structure of the therapeutics stomatology should be divided in, for instance, Odontology and Periodontology; for the better education of the students and research responsibilities of the staff, but also for the better care of complicated cases.

Development of the staff might be advisable, preferably abroad. In a new Periodontal Department there is a need for a sterile operating theatre.



## **Section 13 Oro-Maxillo-Facial Surgery**

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### **Responsible person:**

Dr. Nicolae Chele, Professor, Head of Department  
e-mail: godoroja@mednet.md Fax: —

### **13.1 THE PRECLINICAL COURSE**

#### **13.1.1 Introduction**

The Preclinical Course “Oral Surgery Propaedeutics” is scheduled in the 2<sup>nd</sup> year, during the 3<sup>rd</sup> and 4<sup>th</sup> semester.

#### **13.1.2 Primary Aims**

- To accustom and learn by the students the general notions the subject and the contents of oro-maxillo-facial surgery, organization of surgical stomatological assistance;
- Assimilation of surgical anatomy of the oro-maxillo-facial region, instruments and materials used in oro-maxillo-facial surgery;
- Assimilation of patients' clinical examination in the clinics of oro-maxillo-facial surgery. Paraclinical explorations. Documentation.
- Assimilation of asepsis, antisepsis and disinfection in the clinics of oro-maxillo-facial surgery;
- Assimilation on phantoms of loco-regional anaesthesia basis, and tooth extractions.

#### **13.1.3 Main Objectives**

- Surgical anatomy of oro-maxillo-facial region;
- Instruments for anaesthesia and tooth extraction. Anaesthetic drug remedies;
- Pre-anaesthesia, types and methods of local anaesthesia in oro-maxillo-facial surgery;
- Tooth extraction, indications, contra-indications, instruments;
- Tooth extraction technology with tongs, elevators and accessory tools;
- Accidents and complications caused by loco-regional anaesthesia, and tooth extractions.

#### **13.1.4 Hours in the Curriculum**

- 3<sup>rd</sup> Semester: 8 course hours; 34 practical hours.
- 4<sup>th</sup> Semester: 6 course hours; 34 practical hours.

#### **13.1.5 Method of Learning/Teaching**

The preclinical course is studied in the 3<sup>rd</sup> and 4<sup>th</sup> semester, students work on phantoms.

- In the 3<sup>rd</sup> semester: students study thoroughly the surgical anatomy of oro-maxillo-facial region, asepsis, antisepsis, and disinfection in oro-maxillo-facial surgery;

- In the 4<sup>th</sup> semester: Students study the basis of loco-regional anaesthesia, and tooth extraction.

### **13.1.6 Assessment Methods**

Test papers, tests, marked and non-marked credits, practical work.

### **13.1.7 Strengths**

Training of all practical skills on phantoms is very necessary for clinical activity.

### **13.1.8 Weaknesses**

Students don't have the possibility to work on simulators, because the department doesn't have them.

### **13.1.9 Innovations and Best Practices**

- Students learn methods of loco-regional anaesthesia and tooth extractions on models ( plastic skulls);
- Students draw nerves and regions of loco-regional anaesthesia.

### **13.1.10 Plans for Futures Changes**

To endow the preclinical course with dentar simulators for anesthetics and modern equipment.

### **14.1.11 Staff Names, Qualifications and e-mail Addresses**

Dr. D.Șcerbatiuc	Chief of Department, Professor, Ph.D.
Dr. T.Popovici	Associate Professor, Ph.D.
Dr. V.Ouatu	Associate Professor, Ph.D.
Dr. V.Cojocaru	Associate Professor, Ph.D.
Dr. N.Chele	Assistant
Dr. E.Balan	Assistant
Dr. D.Hîțu	Assistant
Dr. C.Bicer	Assistant

### **Visitors Comments**

See Visitors General Comments

## **13.2 THE CLINICAL COURSE**

### **13.2.1 Introduction**

- Assimilation of patients' clinical examination in the clinics of oro-maxillo-facial surgery. Paraclinical explorations. Documentation.
- Assimilation of asepsis, antisepsis and disinfection in the clinics of oro-maxillo-facial surgery;

- Assimilation on phantoms of loco-regional anaesthesia basis, and tooth extractions.

### **13.2.2 Primary Aims**

- To apply in clinical practice (on patients) the knowledge gained before by the propaedeutic course (in the 3<sup>rd</sup> and 4<sup>th</sup> semester);
- To learn and possess the methods of loco-regional anaesthesia, tooth extraction and diagnosis and treatment of oro-maxillo-facially located diseases.

### **13.2.3 Main Objectives**

- Infections of oro-maxillo-facial organs, periodontitis, periostitis, osteomyelitis, phlegmons of soft tissues, lymphadenitis-lymphangitis, odontogenic sinusitis;
- Salivary glands diseases;
- Dento-maxillo-facial traumatism (including of company too);
- Benign and malign tumours, principles of early diagnostics and treatment. Pretumoral affections;
- Oro-maxillo-facial infirmities and deformations. Principles of diagnostics and complex treatment.

### **13.2.4 Hours in the Curriculum**

Year 3	5 <sup>th</sup> Semester:	8 theoretical hours;	34 practical hours;
	6 <sup>th</sup> Semester:	8 theoretical hours;	51 practical hours;
Year 4	7 <sup>th</sup> Semester:	12 theoretical hours;	60 practical hours;
	8 <sup>th</sup> Semester:	12 theoretical hours;	60 practical hours;
Year 5	9 <sup>th</sup> Semester:	10 theoretical hours;	90 practical hours;
	10 <sup>th</sup> Semester:	16 theoretical hours;	102 practical hours.

### **13.2.5 Method of Learning/Teaching**

Beginning with the 5<sup>th</sup> semester, students come in to the stomatological policlinics ("surgical rooms"), and the oro-maxillo-facial surgery hospital (75% policlinics and 25% stationary).

3<sup>rd</sup> year students take lectures and practical hours once a week, where they are shown patients and theoretical seminars are kept according to the subject of the 4<sup>th</sup> and 5<sup>th</sup> year students; the courses are kept at the beginning of the cycle after the practical hours and seminars in policlinics or stationary according to the curriculum, where patients are shown or students consult patients under the surveillance of the assistant. Seminars take place at the end of the cycle.

### **13.2.6 Assessment Methods**

Students' knowledge evaluation takes place at every practical hour in the form of discussion, solution of tests, marked credits, exams at the end of semester.

### **13.2.7 Strengths**

Studying of the above mentioned disciplines is a continuation, profound study and application in clinics of knowledge obtained at the propaedeutic course of oro-maxilla-facial

surgery. Improvement of students' knowledge in para-clinical methods use, patients' examination and surgical treatment.

### **13.2.8 Weaknesses**

It is necessary to endow the rooms of oral surgery and the Department of Oro-maxillo-facial Surgery with modern equipment and instruments.

### **13.2.9 Innovations and Best Practices**

- Use of modern surgical treatment methods of chronic periodontitis (apical resection, premolarisation, tooth reimplantation);
- Modern implantology methods use;
- Use of modern complex treatment use of inflammatory processes with the implementation of the most modern drug remedies;
- Implementation on new treatment methods of maxilla fractures and their infirmities and deformations( lint plates, miniplates etc.);
- Premature diagnostics of pre tumours and tumours, etc. in the oro-maxillo-facial region.
- Implementation of new surgical treatment methods of oro-maxillo-facial tissues infirmities and deformations etc.

### **13.2.10 Plans for Futures Changes**

Ample supply of oral surgery rooms and the Department of Oro-maxillo-facial Surgery with modern equipment and instruments.

### **13.2.11 Staff Names, Qualifications and e-mail Addresses**

Dr. D.Şcerbatiuc	Chief of Department, Professor, Ph.D.
Dr. T.Popovici	Associate Professor, Ph.D.
Dr. V.Ouatu	Associate Professor, Ph.D.
Dr. V.Cojocar	Associate Professor, Ph.D.
Dr. N.Chele	Assistant
Dr. E.balan	Assistant
Dr. D.Hîţu	Assistant
Dr. C.Bicer	Assistant

### **Visitors Comments**

See Visitors General Comments

## **13.3 ORAL SURGERY**

### **Responsible person:**

Dr. Hugh Barrz and Dr. David Ryan  
e-mail: godoroja@mednet.md

Fax: —

### **13.3.1 Introduction**

Oral surgery is introduced as a subject at the 3<sup>rd</sup> academic year and it is studied during the 4<sup>th</sup> and 5<sup>th</sup> academic years. The basis for studying this subject is set at the first and second years of study by studying the fundamental disciplines and human body pathology and it is developed during the last three years parallel with buccal cavity therapy, buccal cavity pathology, and buccal cavity radiology.

### **13.3.2 Primary Aims**

- To develop the ability to understand the necessity of exact diagnosis of buccal cavity surgical problems.
- To develop the ability to understand the necessity of a very careful manipulation on the soft and hard dental tissues during all dental procedures and to develop the practical skills for an adequate and correct teeth extraction.

### **13.3.3 Main Objectives**

At the end of the course the student:

- understand the principles of clinical surgical anatomy, pathology and physiology, which are referred to the buccal cavity surgical practice.
- understand the principles of instruments sterilization with a reference to buccal cavity surgical practice.
- understand the principles of controlling and treating the tooth ache.
- understand the principles of controlling the bleeding after tooth extraction.
- is able to accomplish exodontia with forceps.
- is able to accomplish minor surgical procedures referred to dental practice.

### **13.3.4 Hours in the Curriculum**

Total: 345 hours.

Theoretical 50, practical - 295

### **13.3.5 Method of Learning/Teaching**

Practical skills of the oral cavity surgery are taught in the 3<sup>rd</sup> and 5<sup>th</sup> years of study. A more advanced clinical evaluation and surgical procedures are taught in the final year of study.

The most considerable didactic part of the oral cavity surgery is taught in the 4<sup>th</sup> year of study. The teaching is done with the students' participation in the sittings of general anaesthesia at the hospital "Sfinta Maria" and the sittings of the local and sedation anaesthesia in the new clinics specialized for treating ambulatory patients.

### **13.3.6 Assessment Methods**

The didactic part of training is accomplished via a continuing assessment system with the help of MCQ and MSA format sheets. There is an examination at the end of the 3<sup>rd</sup> and 4<sup>th</sup> years of study.

Clinical competence tests and minor surgical procedures must be taken before the final examinations.

### **13.3.7 Strengths**

Establishing a new stomatological clinic improved, to a higher degree, the training medium for students via facilitating the access to the clinic in which oral cavity surgery and sedation techniques are practiced. We can wait for these facilities together with the development of newer expertise methods of teaching to result in a growth of the registered performance of students.

### **13.3.8 Weaknesses**

Although to have a group of 40 students in the third year of study for a sitting of exodontia is an innovation, but it did not bring to the expected result. The furnishing of an adequate number of patients of an exodontia with no consequences proved to be a problem.

### **13.3.9 Innovations and Best Practices**

- Assurance of training PBL adds up to the clinical training.
- Simultaneous training in the oral cavity surgery of the 40 students in the oral clinics, on Friday in the afternoon.

### **13.3.10 Plans for Futures Changes**

The development of interactive training for oral surgery.

### **13.3.11 Staff Names, Qualifications and e-mail Addresses**

Dr. D.Șcerbatiuc	Chief of Department, Professor, Ph.D.
Dr. T.Popovici	Associate Professor, Ph.D.
Dr. V.Ouatu	Associate Professor, Ph.D.
Dr. V.Cojocar	Associate Professor, Ph.D.
Dr. N.Chele	Assistant
Dr. E.Balan	Assistant
Dr. D.Hîțu	Assistant
Dr. C.Bicer	Assistant

### **Visitors Comments**

See Visitors General Comments

## **Visitors General Comments**

The education in oral surgery seems to have an appropriate place in the curriculum going from the 3<sup>rd</sup> to the 5<sup>th</sup> year. The education gives the student a sound basis to perform oral surgery as GDPs. The Visitors were impressed by the spacious Clinic. The department is also well integrated with the departments of oro-maxillo-facial surgery, prosthodontics, orthodontics and medical radiology at the same hospital. A broad register of diseases in the oro-maxillo-facial region is treated and gives the students a great opportunity to get insight, to perform tooth extractions and to assist during operations. The Visitors were impressed with the range and extent of treatment carried out in this unit.

It must be a cause for concern that despite the significant time devoted to this subject the stated competences of the students seem little different to those expected of students in school with less than half to one-third of the time. In view of the advanced care provided by the faculty members it is a pity that the Faculty of Stomatology's graduates do not gain greater competence than tooth extractions in this area.

The Visitors therefore recommend a reduction in the number of hours allocated to Oral and Maxillofacial Surgery from 12% of the total curriculum to perhaps 5% although the Visitors are not in a position to make such mathematical determinations. At the same time the students should be given greater experience in practical minor oral surgery of a simple nature so that they are all capable of simple surgical removal of buried roots and uncomplicated simple impactions prior to graduation.

Once again the Visitors would prefer to place emphasis on an integrated approach to curricular design and refer the reader to the Executive Summary of the Visitors at the end of the document in Section 22.

**Radiology:** Although the dental specialities have access to good radiographic equipments, the limited amount of x-ray machines in the School make it impossible for the students to reach the main objectives within the subject of *oral* radiology. For the future the Visitors strongly recommend that the students will get the possibility to learn about how to perform intra-oral radiographic examinations and interpret the resulting radiographs correlated to the clinical examination of the patient. In addition, how to use radiography as a diagnostic method when diagnosing caries, periodontitis and endodontic treatment and other diseases within the oral cavity. Finally to be extremely aware of radiation hygiene.

## **Section 14 Oral Medicine and Oral Pathology**

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### **Visitors Comments**

A Department of Oral Pathology seems to be missing The dental staff in the dental clinic made instruction materials, but there is not a structured method of teaching oral pathology. These issues are taught at the Departments of Morphopathology and Therapeutical Stomatology.



## **Section 15 Integrated Patient Care, Dental Emergencies and Special Needs Patient**

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### **15.1 INTEGRATED PATIENT CARE AND DENTAL EMERGENCIES**

#### **Visitors General Comments**

Integrated patient care is implemented in the integrated restorative curriculum; as there is exclusively the Department of Therapeutic Stomatology. There is not an idea of setting up a structured treatment plan after making the diagnoses. Emergencies are received and treated by each dentist individually. Location of departments' receptions, all at higher levels as ground level, seems to be of great disadvantage; long stairs have to be climbed (no lifts are available).

The need for integrated patient care and training students to treat patients with special needs seems to be recognised explicitly by the Paedodontic Department. There is also a need for geographically defined special treatment in the area of tuberculosis and the area of parasitic and tropical diseases.

Under these circumstances and the condition of the facilities (particularly lack of space) the Visitors cannot give another advice to implement the concept of Integrated Patient Care as to reorganise the dental treatment facilities of – at least – both the Departments of Therapeutic Stomatology and Orthopaedic Stomatology by integration towards efficient use.

There is a serious need to institute a structured approach where students carry out integrated patient care. Visitors considered this as an important deficiency especially when graduates on qualifying have to treat patients on an integrated basis and not in departmental or specialist units. The final six months offers an ideal opportunity to devise such a unit and simulate the variety of patient care in a realistic and practical fashion.

## **15.2 SPECIAL NEEDS PATIENTS – PNEUMOPATHOPHYSIOLOGY**

### **Responsible person:**

Dr. V.Turcan, Professor, Head of Department

e-mail: —

Fax: —

### **15.2.1 Introduction**

The Course of Pneumopathophysiology is explained by the necessity of knowledge by general practitioners the main points of fighting with tuberculoses.

### **15.2.2 Primary Aims**

The main aim is learning the aspects of pulmonary and oral cavity tuberculosis and participating in diagnosing the tuberculosis in this domain by is future dentists.

### **15.2.3 Main Objectives**

- learning the methods of diagnosing the tuberculosis;
- learning the clinical aspects of pulmonary and buccal cavity tuberculosis;
- up to date treatment of tuberculosis;
- prevention of tuberculosis

### **15.2.4 Hours in Curriculum**

Total : 36 hours

Theoretical : 2

Practical: 32

### **15.2.5 Methods of Teaching/Learning**

Lecturing and practical classes.

### **15.2.6 Assessment Methods**

The assessment of the course is done through continuous assessment by oral examinations and tests at the end of the course.

### **15.2.7 Strengths**

Learning the discipline is assured by the alarming existence of tuberculosis endemic in the country and in the world.

### **15.2.8 Weaknesses**

An important weakness is the lack of modern equipment.

### **Visitors Comments**

See Visitors General Comments above and below.

## **15.3 SPECIAL NEEDS PATIENTS – PARASITIC AND TROPICAL INFECTION DISEASES**

### **Responsible person:**

Dr. Holban Tiberiu, Professor, Head of Department  
e-mail: — Fax: —

### **15.3.1 Introduction**

The Course of Parasitic and Tropical Infection Diseases is scheduled in the 4<sup>th</sup> year, semester VIII and offers 6 hours of lectures and 36 practical hours; 42 hours in total. It is scheduled 6 days during one week in the Clinics of Infection Diseases. The course covers , including theoretical courses, practical works at patients bed, case presentations. It makes possible to get a knowledge which main infections develop diseases, to develop patient examination skills.

### **15.3.2 Primary Aims**

The main goals of the course are:

- to develop in students examination skills of the infections patient which includes anamnestic data collection, epidemiological inquiry, clinical examination material drawing for laboratory investigations;
- to let the students know about the most spread and important infections diseases especially precocious diagnosing and urgent offer of medical help.

### **15.3.3 Main Objectives**

- to study main peculiarities and infections diseases classifications;
- to get acknowledged with the most important infections diseases (clinical picture, laboratory diagnosis, treatment);
- to get acknowledged with the manifestations of infections diseases met during stomatological practice of infections diseases and their precise diagnosis;
- to have practical skills of drawing and collection of biological material for infections diseases diagnosis;
- to be able to clinically appreciate the laboratory indices on a patient with infections pathology;
- to know the treatment principles of infections diseases;
- to offer medical help in case of emergency to patients with infections pathology;

### **15.3.4 Hours in the Curriculum**

For the assimilation of the discipline of infections tropical and parasitic diseases, 6 lectures and 36 practical hours, totally- 42 hours are scheduled.

### **15.3.5 Method of Learning/Teaching**

The teaching methods first of all include practical classes of the clinic of the clinic of infections diseases, which consist of work at patient beds under the guidance of the assis-

tant, discussion of clinical cases and theoretical material. Also, lectures are given by the professor and assistant professors where the theoretical material is cleared up.

### **15.3.6 Assessment Methods**

Assessment methods of knowledge and abilities include the tested control of knowledge, answer to theoretical questions, evaluation of practical skills, patient examination and case presentation which take place during practical classes. The students who have fulfilled the syllabus are attested with an average mark of 5 and more.

### **15.3.7 Strengths**

In order for the process of studies to take place, the department has a clinical base of 300 beds and possibilities to work at patient's bed. The didactical staff is qualified and experienced. Curricula, methodical indications, knowledge test are made up at the department. The department has a collection of CDs and thematic videofilms, slides, tables and macropreparation extracts from observation cards.

### **15.3.8 Weaknesses**

Insufficient computer- and videotechnology, as well as the lack of conditions for scientific research for students and collaborators.

### **15.3.9 Innovations and Best Practices**

During the last 5 years a new treatment method for viral hepatitis B and a new method for complete the evaluation of the immune status at patients with viral hepatitis B and D, was developed by the department. New diagnosis methods of malaria and some helminthiasis have been implemented.

### **15.3.10 Plans for Futures Changes**

The endowment of the department with 3-4 computers and video apparatus is planned in future. Also it is planned to assure the financing of scientific research projects.

### **15.3.11 Staff Names, Qualifications and e-mail Addresses**

Holban Tiberiu	Assistant Professor, Ph.D.	—
	Head of Department	
Constantin Andriuta	Professor, Ph.D.	—
Tiberiu Holban	Assistant Professor, M.D.	—
Elena Mihnevici	Assistant Professor, M.D.	—
Gheorghe Placinta	Assistant Professor, M.D.	—

### **Visitors Comments**

See Visitors General Comments above and below.

### **Visitors General Comments**

The Course of Pneumopathophysiology and the Course of Parasitic and Tropical Infection Diseases are specific for the Republic of Moldova and meet special needs within the Public Health System exemplary – it is an excellent model for other schools to look at.

## **Section 16 Behavioural Sciences**

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### **16.1 COMMUNICATIONS**

#### **Responsible person:**

Dr. L. Lupu, Professor, M.D., Head of Department

e-mail: —

Fax: —

L. Chiviriga, Senior lecturer, Head of English Department

e-mail: —

Fax: —

#### **16.1.1 Introduction**

The Department of Foreign Language and Latin have an important role in the curriculum; it is the communication centre between the students of the various nationalities in Chişinău. The foreign languages are on the basis of exchange of experience, during studies, at international conferences and congresses. Competence and experience with foreign languages are vital necessities. The practical courses of the Department of Foreign Languages and Latin are compulsory.

#### **16.1.2 Primary Aims**

- to assimilate foreign languages for communication, discussions on different themes, which are included in curriculum;
- to **initiate** the students with the general notion of medical terminology, preparing them in future to work with the specialist original literature.

#### **16.1.3 Main Objectives**

- to prepare the specialists with the deep knowledge of one or several foreign languages;
- to assimilate the scientific medical terminology and its integration in daily usage;
- to select an information from the specialist texts and to retell in brief the content in everyday language;
- to develop translator abilities for the future student's activity (francophone groups);
- to present the content of listened text or a watched film;
- to get students interested in modern languages and their study;
- to assure the practical application of knowledge in oral and written communication;
- to use at the practical courses of Foreign Language and Latin materials from the medical domain, social life and civilization;
- to introduce to the students the knowledge of medical terminology and general human values of ancient civilization transmitted to the coming generations through the Latin language.

#### **16.1.4 Hours in the Curriculum**

The practical courses of the Department of Foreign Languages and Latin are scheduled as follows:

Faculty	Year	French (English, German)	Romanian	Latin
General	2	136 h	204 h	68 h
Medicine	2	136 h	136 h	—
Stomatology	1	68 h	68 h	68 h
Pharmacy	1	136 h	204 h	119 h
	2	68 h	—	—
	3	34 h	—	—
Pharmacy College	1	102 h	136 h	68 h

for the Faculty of Stomatology:

- French (English, German):

First term (weekly/total)	Second term (weekly/total)	Total (per year)
First year: 2 h/34 h	First year: 2 h/34 h	68 h
Second year: 2 h/34 h	Second year: 2 h/34 h	68 h

- Romanian:

First year: 2 h/34 h	First year: 2 h/34 h	68 h
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- Latin:

First year: 2 h/34 h	First year: 2 h/34 h	68 h
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### 16.1.5 Method of Learning/Teaching

During the practical lessons of foreign language and Latin traditional and modern methods of teaching/learning are used:

- analytic-synthetic method;
- audio- visual method;
- tests;
- conversation;
- to render the content, to dialogue
- the method of knowledge strengthening and consolidation.

At all stages of learning the modern languages and Latin is used the material of civilization and culture which contributes to know better the material and spiritual values of France, USA, England, Germany of ancient civilization, which stimulate the raising of the intellectual and cultural level of the students.

The audio- visual didactic material plays a special role in the teaching/learning process. For this purpose linguistic laboratories situated are available in the department.

### **16.1.6 Assessment Methods**

The control and the assessment is done daily, periodically (after learning some themes) and at the end of the term or at the end of the study year (credit test, credit test with mark, exam according to the curriculum).

### **16.1.7 Strengths**

- there are elaborated analytic programs, time schedules, methodological instructions for foreign languages and Latin;
- there are two textbooks published, one in French, the other in English for medical students; also dictionaries of phraseologisms, somatic and biomedical, Romanian – French – Russian;
- for the practical lessons of foreign language there are the intensive courses of the French, English and German languages;
- students scientific conferences are organized, with presentation of reports in the studied foreign language;
- doing all the best to modernize the process of learning of the foreign languages.

### **16.1.8 Weaknesses**

- the department is too far behind to perform a complete modernization of the instructive – educational process.
- There are no original textbooks for learning Romanian, Latin and German languages.
- the elaboration of the didactic material necessary for the department unfolds slowly.
- students are not divided in groups according to their level of knowledge of the foreign language they should study, which creates certain difficulties in the learning/teaching process.

### **16.1.9 Innovations and Best Practices**

Implementation of

- the analytic-synthetic and comparative method;
- the audiovisual method; the work in the linguistic laboratory;
- the method of selection from the Internet the didactic material necessary for the practical classes of foreign languages and Latin;
- the method of conversation;
- the exercise method using original course material in French, English, German and Romanian.

### **16.1.10 Plans for Futures Changes**

- To complete the record library, video- and medialibrary of the department with new didactic material.
- To finish the modernization of the teaching/learning concepts of the foreign languages and Latin.
- To connect the department to the Internet and to use it in the educational process.



- To find the possibilities for refresher courses for teaching staff in France, Germany, England and USA.
- To intensify the scientific work of the young teaching staff.
- To organize optional courses for students for study the 2<sup>nd</sup> foreign language

#### **16.1.11 Staff Names, Qualifications and e-mail Addresses**

Dr. L. Lupu, Professor, Ph.D., Head of Department	
L. Chiviriga, Senior lecturer, Head of English Department	
Ojog V.	Senior Lecturer
Iesanu D.	Senior Lecturer
Samsurin M.	Senior Lecturer
Bejenaru G.	Senior Lecturer
Tomsa Lucia	Senior Lecturer
Ambros Antonina	Senior Lecturer
Pruteanu M.	Senior Lecturer

#### **Visitors Comments**

Special training in communication is not delivered explicitly. A speciality of the Chişinău School is the Course of Foreign Languages and Latin. The need for teaching and learning foreign languages is evident, for Latin this is questionable for West-Europeans, for Romanians considering the origin of their language it is self-evident.

## **16.2 ETHICS AND LAW / PHILOSOPHY AND BIO-ETHICS**

### **Responsible person:**

Dr. Teodor N. Tirdea, Professor, Head of Department  
e-mail: — Fax: —

#### **16.2.1 Introduction**

The Philosophy and the respective disciplines (the history and philosophy of the universal and national culture, bio-ethics, aesthetics, politology) have an important role in the process of education of young people, future doctors in a humanistic spirit.

#### **16.2.2 Primary Aims**

The main concept of education at the department is the concept of continuous education. The practical activity of the staff is devoted toward profound and multilateral reorganization of both the content and the methods of teaching. The main directions of this chapter are the humanitarization of medical studies, assurance of conceptual philosophic pluralism, the restructuring of the philosophical ideas, agreement between Philosophy, theory and practice of modern society. The department teaches the following subjects: History and Philosophy of Culture, Philosophy, Bioethics and Politology. From the above courses the future students form a scientific-philosophical concept of the world, a creative thinking that would have a positive influence on their professional carrier.

### **16.2.3 Main Objectives**

- Education of specialists of high qualification with a dialectical-scientific conception about world, capable to use the philosophic methodology for solving the practical and theoretical problems of medical sphere in the conditions of information exchange in modern society.
- Going on with the work in the direction of reorganization of teaching philosophy and bio-ethics according to the new needs, permanently making better the theoretico-methodological activity of the didactic staff of the department.
- Forming at future doctors a creative philosophical and clinical mentality, a general human culture through a profound study of history and the conceptions of doctors-philosophers and other thinkers from the past.
- To accustom the students with methods, principles, methods of approaching the bio-ethics in medical practice, in everyday behaviour of the studious youth.
- Intensifying the didactical staff scientific activity and implementation the results of investigations of the department's collaborators in the process of education, paying a special attention to studying the healthy way of life, the philosophical problems of medicine and medical activity in the conditions of accelerated informatization of the society.
- Using on a large scale the technical means of education, especially computers in the didactical process, in arranging the rooms and halls for studying.
- To work permanently on solving the problems of publishing compendia and manuals on philosophy, ethics, politology, bio-ethics.
- To work more with students, permanently implying them in the scientific activity of the department.

### **16.2.4 Hours in the Curriculum**

1-2 <sup>nd</sup> weeks	History and Philosophy of Universal and National Cultures 78 hours (30 theoretical hours and 48 practical hours)
3-4 <sup>th</sup> weeks	Philosophy 116 hours (48 theoretical hours and 68 practical hours) Bioethics 16 hours (4 theoretical hours and 12 practical hours) Politology 50 hours (20 theoretical hours and 30 practical hours)

### **16.2.5 Method of Learning/Teaching**

The main concept of education at the department is the concept of continuous education. The practical activity of the staff is devoted to assuring a profound and multilateral reorganization both of the content and the methods of teaching. The main directions of this chapter are the humanization of medical studies, assurance of conceptual philosophic pluralism, the restructuring of the philosophical ideas, agreement between Philosophy, theory and practice of renewing the society, the raise of the cultural and methodological level of the future doctors, the profound profiling of the taught courses.

The department assures training of the following subjects: History and Philosophy of Culture, Philosophy, Bioethics and Politology. From the above courses the future students form a scientific-philosophical conception about the world, a creative thinking, and they will get deeper in the essence of their profession. The courses create certain methodological skills, which will be used practically and theoretically. These moments are more profoundly accomplished while teaching Bioethics.

Usual and via correspondence at the faculty of Pharmacy. The process of studying means theoretical classes (1/3 out of all the hours) and practical classes. Students have to study certain literature before practical classes, to present reports.

### **16.2.6 Assessment Methods**

The control and evaluation of knowledge take place daily, periodically (after studying a certain topic), and at the end of the semester or the year of study (testing and examination according to the curriculum).

The head of the department and the head for studies assist periodically at the theoretical and practical classes of the teachers from the chair. The members of the department assist reciprocally at the classes of their colleagues and discuss the visits at the sittings of the department.

### **16.2.7 Strengths**

Agreements with other departments of the University: Some points in the process of study are correlated with the history of medicine, economy, and medical management and other theoretical departments. The department maintain close relations with the faculty of Philosophy of the State University from Chişinău, with scientists from Lvov, Kiev, Kursk, Moscow. Professors Ursul and Kocerghin (Moscow) lectured for the students. Cavasin (Italy) held lectures in Bioethics.

### **16.2.8 Weaknesses**

It would be highly desirable to increase the number of hours in Bioethics, Diagnostical Logics, and perform these subjects in the Vth year.

### **16.2.9 Innovations and Best Practices**

Work done to modernize the process of study: Staff aims continuously at perfecting the way and forms of teaching. For this special visits to classes and afterward discussions at the sittings are done. For this purpose at the department preparing and discussing reports on different topics of Philosophy and Science are practised. Practically, the department can start teaching special and optional courses. Five optional courses are ready. Two groups from the General Medicine Faculty study Philosophy in French.

### **16.2.10 Plans for Futures Changes**

- to improve the process of study it is desirable to invite foreign professors with view to hold lectures for students and doctorates;
- financing is necessary to publish didactic materials;
- to find possibilities to send the collaborators of the department to France, Germany, England, U.S.A and other countries for them to get experienced.

### 16.2.11 Staff Names, Qualifications and e-mail Addresses

Teodor Nicolae Tirdea	Professor, Ph.D.	—
Petru Vasile Berlinschi	Assistant professor Ph.D.	—
Vitalie Ion Ojovanu	Assistant professor Ph.D.	—
Andriana Leonid Paladii	Assistant professor Ph.D.	—
Didina Ulian Nistreanu	Assistant professor Ph.D.	—
Savelii Andrei Balan	Assistant professor Ph.D.	—
Manole Dum.Cartofeanu	Assistant professor Ph.D.	—
Rodica Const.Gramma	Assistant	—
Sergiu Leonid Sprincean	Assistant	—
Liudmila Vitalie Stupnitcaia	Assistant	—
Olga Valeriu Criucova	Assistant	—

### Visitors Comments

See Visitors General Comments below

## 16.3 PRACTICE MANAGEMENT / HEALTH CARE ECONOMY AND MEDICAL MANAGEMENT

### Responsible person:

Dr. Etco Constantin, Professor, Head of Department  
e-mail: — Fax: —

### 16.3.1 Introduction

The course of Health Care Economy and Medical Management is an essential component of the curriculum. It is taught to the 5 year in the fall semester: 80 hours in total are scheduled: 48 hours for Medical Management and 32 hours for Health Care Economy. Training includes the analysis of cost/benefit relationships for the actual situation in practice using calculation methods and real situations analysis.

### 16.3.2 Primary Aims

- to make the students familiar with economical, financial, managerial, psychological, juridical notions, which will help them in their future professional activity while meeting the patients needs;
- to get the students a knowledge with practical aspects of stomatological activity organization using economic-managerial principles.

### 16.3.3 Main Objectives

- to teach economical, managerial knowledge to the students, which will help them in their future professional activity concerning calculation of expenditures, benefits, price wounding, marketing understanding, individual activity initiation, etc.
- continuous academic/postgraduate training.
- to help students to understand the objective necessity of Health Care Economy and Medical Management, taking into consideration that stomatological health assurance, depends on some certain economical factors, such as financial resources assurance, price calculation of stomatological services.
- to offer the students the possibility to understand the fact that it is necessary to take into consideration patients' demand, the necessity to offer a high qualitative stomatological service, these services being compatible with income and time limits.
- to structure students' opinion about his/her working time as a rare resource and show it can be seen as an economical outlay.
- to develop students' capacity of manifesting themselves as adaptive managers, appealing to the necessity of knowledge and flexibility for stipulations of external medium.

#### **16.3.4. Hours in the Curriculum**

The course is scheduled in the 5<sup>th</sup> year, being integral part of clinical training, when the student faces real economic problems, directives, quality control requirements, etc. The course includes the study of Health Care Economy, the total number of hours is 32 (12/20) and 48 (16/32) for Medical Management respectively.

#### **16.3.5 Method of Learning/Teaching**

The concept of teaching was discussed in sessions of the Methodical Commission of the Faculty and the Central Methodical Commission; it was about the doctorate and master's level of education.

Teaching includes lectures, practical classes, seminars and scientific conferences. Three themes for individual studying (10%) are included in the thematic schedule of practical classes. Integration with other disciplines and specialties within the department occurs, with emphasis on clinical activities where students face practical problems.

#### **16.3.6 Assessment Methods**

Assessment takes place at various levels: In the modules, students perform test-papers, answer questionnaires, solve problems and determine their managerial and contractual capacities solving psychological tests. At the end of the semester course evaluation takes place in the format of an exam, consisting out of a written, an oral and a practical test.

#### **16.3.7 Strengths**

- Studying of the discipline in the 5<sup>th</sup> year, when the student is acquainted with the practical aspect of his/her future activity;
- Studying of the course includes two disciplines: Health Care Economy and Management which allows integration of economical and managerial knowledge, aiming at more efficient use of all resources (finances) in order to meet patients' needs;

- Use of modern methods of study the solution of all situational problems by team work;
- assessment methods which allow to notice students capacity using practical skills;
- Students' individual work;
- Students' activities within the students' scientific society.

### 16.3.8 Weaknesses

There is

- a need to include financial management leadership psychology into the curriculum, which also could be used for postgraduate studies.
- insufficient endowment with new scientific literature;
- no Internet access;
- an insufficient number of computers.

### 16.3.9 Innovations and Best Practices

Studying the course includes two disciplines: Health Care Economy and Management allows to integrate the economical and managerial knowledge, aiming at a more efficient use of all resources (financial material) in order to meet patients needs;  
-use of modern methods of study solution of all situational problems using work in team;

### 16.3.10 Plans for Futures Changes

- to create a more essential link between theory and practice;
- it is necessary for students to practice in private stomatological clinics to see the specific aspects;
- to implement new methods and training materials used in developed countries with a view to obtain practical advantage in the transition period of Moldova to the free market economy.

### 16.3.11 Staff Names, Qualifications and e-mail Addresses

Etco Constantin	Professor, Ph.D., Physician	—
Reabov Elizaveta	Assistant Professor, Doctor in Economical Science, engineer economist	—
Goma Ludmila	Professor in Social Sciences, Doctor in Economical Science, lecturer,	—
Marin Sergiu	Professor in Social Sciences, lecturer,	—
Nina Globa	Lecturer, Master Degree in Management, physician	—
Vrabu Valeriu	Lecturer, Doctor in Economical Science, MD, obstetrician, gynaecologist	—

## **Visitors Comments**

See Visitors General Comments below

### **Visitors General Comments**

There is an extreme awareness of the importance of prophylactic measures to be educated in the Moldavia population from the early age on, and its relation to public dental health states.

For the background of limited financial resources in the National Health System the Visitors endorse that the students are introduced to public dental health topics and oral hygiene procedures as early as possible in the curriculum: They should not only be taught but also be learned and exercised by the students themselves in optima forma. Therefore, as expressed in the curriculum (page 10) "Oral Hygiene Education" must be an obligation. Unique is the teaching in Health Care Economics and Medical Management which is exemplary.

The teaching in behavioural sciences is mostly done by giving lectures philosophy. No behaviour skills like communication with patients is being taught. Students were complaining about the huge amount of lectures. Sociology and psychology is not in the program.

Visitors suggest not to introduce problem-based learning until faculty is prepared to understand its basic cognitive principles, starting – for example – with case-based learning first. They indicate that for this purpose NO additional hours are required. On the contrary, lesser contact-hours and more hours for self-study are inherent to the principle of case-based, problem-oriented and problem-based learning.

There is increasing emphasis on the need to increase the amount of teaching and practical application of the behavioural sciences in the curriculum. This is an area in which there are significant cultural differences ranging which need to be taken into consideration and where there are significant regional variations. The safe and compassionate care of patients is fundamental to dentistry and Dental Medicine and the Visitors believed that more attention might be given to this very important discipline and try to implement practical classes as opposed to lectures and theoretical approaches. The behavioural sciences should apply throughout the clinical departments so that in addition to the biological and technological elements of holistic patient care, the School should also incorporate much more of the psycho-social influences on health gain, disease and the care of patients. The Faculty of Stomatology in Chişinău, unfortunately like the vast majority of dental schools throughout the world lacks sufficient emphasis and perhaps even appreciation of the importance of behavioural sciences and their importance in promoting the highest levels of professional behaviour in the future cohort of practicing dentists. This of course is integrated with the fundamental ethical and moral principles as well as the more defined areas of jurisprudence.

***Ethics and Jurisprudence:*** Although the Visitors would be anxious to separate issues of ethics and perceptions of personal/professional morals from the more factual base of jurisprudence they feel the need to stress the importance of individual responsibility for a code of moral behaviour and within the norms of an accepted professional ethical base and subject to the tenets of jurisprudence that apply in the region.



## **Section 17 Examinations, Assessments and Competences**

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### **17.1 INTRODUCTION**

#### **Visitors Comments**

See Visitors General Comments below

### **17.2 EXAMINATIONS AND ASSESSMENTS**

#### **Visitors Comments**

See Visitors General Comments below

### **17.3 EXAM PERIODS AND SCHEDULES**

#### **Visitors Comments**

See Visitors General Comments below

### **17.4 FINAL DEGREE EXAM**

#### **Visitors Comments**

See Visitors General Comments below

#### **Visitors General Comments**

The teachers of the Faculty of Stomatology are well aware of their responsibility for the quality of their teaching: A dense network of summative assessment is woven into the curriculum. Most of the formats are orals, sometimes essay formatted tests and written “quizzes” (MCQ-tests) – a lot of formats are unusual or not clear to the Visitors.

Exam periods are as clear defined as options to repeat after failing: The main examination periods are 15 Jan - 15 Feb and 15 Jun - 15 Jul. In these periods at least 2 weeks time must be scheduled before any retest is allowed to be taken. In all other periods this is 1 month.

Absolutely fair is the regulation that three repetitive tests can be taken until – for the fourth time – a final test must be taken from a “Teachers Committee avoiding enrolment for the past year again.

Visitors welcome openness of the examinations to the public, which may also be understood as expression of highly valid examinations. Reliability, although, might be a problem.

Nevertheless, formative formatted examinations are strongly advised to implement, particularly successively during transition from teacher- towards student-oriented learning concepts: Visitors advice to develop a dense network of formative assessment leading to some summative examinations in a high variety of formats.

The USD 2 punishment for absence from lectures is non-academic and therefore debatable.

The Visitors did not have time to examine the structure of the examinations system applied. In discussion with students it was a great source of anxiety but this is hardly unique. The Visitors were of the view that whether or not we like it, examinations and assessments are the major motivators of student learning. The Visitors have already expressed their profound concern about the level of detail taught and it seemed that much of this detail, relatively irrelevant, was included in assessments and examinations in Chişinău. This could be seriously detrimental to a learning programme.

The Visitors advocate that if the Faculty of Stomatology’s accept the advice of the Visitors in respect of a Curriculum Committee that an essential component of that should be one to rationalise the examination process and ensure that it complimentary to the educational and learning process rather than dominating it. There is a need to identify what the student needs to know and what can be reasonably expected of him or her and base the assessment methods on a more structured approach. The Visitors urge the Curriculum Committee to protect students from any Department that abuses its authority in examinations to place an unbalanced pressure on students to study that one subject at the expense of others and therefore undermining the integrated approach that the Visitors are advocating. Visitors commend for the Schools consideration the Global Congress Report on Assessment Methods and Quality Improvement which covers these matters and is available on the web site [www.dented.org/dentedevolves.php3](http://www.dented.org/dentedevolves.php3) prior to publication.

## **Section 18 – Other Influences**

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### **18.1 REGIONAL ORAL HEALTH NEEDS**

The oral health in the regions of Moldova is devastating. This problem exists because of the difficult economic situation in the country.

A number of dentists required in the regions is determined by the Ministry of Health of the Republic of Moldova. In average there are 3 dentists per 10000 people. The dentists from the regions have limited obsolete facilities to practice their profession and are strongly underpaid. This results in a very low quality of the dental service.

#### **Visitors Comments**

See Visitors General Comments below

### **18.2 EVIDENCE BASED TREATMENTS**

The model of problem-based learning is based on proofs from the literature on this topic. It includes discussing clinical cases by students and professors. Diagnostic and treatment plans must be clear before the student begins to implement them.

#### **Visitors Comments**

See Visitors General Comments below

### **18.3 INVOLVEMENT AND OTHER UNIVERSITY ACTIVITIES AND SPORT**

The students from the Faculty of Stomatology are very good sports, especially in athletics, boxing, wrestling, volleyball and others. Over the years some of the students represented or represent today the University or the Republic at high rang competitions. The students also take a course of physical training.

One of the most interesting moments from their student life is CVN – erudition, humor and cultural competition. There is an artistic-cultural students' club "Doina si Ion", a band "Mitraxis". Folk dancing groups "Codreanca" and "Bioton" were awarded the honorary title "Model". These groups participated in the festivals in the U.S.A, Netherland, Denmark, Spain, Portugal, France, Great Britain, Greece and others.

In 2000 we had the 40<sup>th</sup> students' competition in Moldova. 500 medical and dental students were participating.

### **Visitors Comments**

See Visitors General Comments below

## **18.4 STUDENT SELECTION PROCEDURES**

Student selection is being done in accordance with the Rules elaborated by the Ministry of Health and Science, who administer admission exams to the University of Medicine and Pharmacy as well as determines a number of freshmen, funded from the state budget, for each faculty. Admission exams include a biology, chemistry/physics and native language test. A competition depends on the number of applicants and seats available for each faculty. Those with the best scores on the admission exams, the best grades for secondary education will be submitted to the university. Graduates from nursing and dental technical schools as well as orphans have privileges in the admission competition.

### **Visitors Comments**

See Visitors General Comments below

## **18.5 LABOUR MARKET PERSPECTIVES**

Students get a diploma that lets them choose any job they find attractive in the field of stomatology.

### **Visitors Comments**

See Visitors General Comments below

### **Visitors General Comments**

Visitors were told about the important differences in oral health existing amongst various parts of the country and also about the different distribution of dentists. A general policy to improve this issue needs to be implemented, that would likewise benefit a decrease in the unemployment amongst dentists.

The connection between the teaching staff and other universities abroad is quite wide, but seems to be mostly concentrated in their clinical or research development. Visitors recommend that staff also use their international connections to get to know the different educational approaches that are developed in other countries.

The obligatory one hour participation in physical education activities during the first two years of studies is commendable. Due to the tight schedule and that the facilities for dental education are located at various places in Chişinău, it seems difficult for dental students to have time for recreation and sport activities.

The Visitors recommend that in the planning of a new curriculum the importance of recreation and sport activities should be taken into serious consideration.

## **Section 19 Student Affairs**

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### **19.1 BASIC DATA**

A number of submitted students to the Faculty of Stomatology is 104. The average number of 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year students is about 86.

The number of the admitted students financed the state budget equals 25-35 and the number of those, who study on a contract basis (paying for the education), varies and depends on the number of the applications and the results of the matriculation examinations.

The percentage of the students, financed from the state budget and those on a contract base in the 2000 – 2001 academic year:

The year of study	Budget		Contract		Total Students
	Students	%	Students	%	
I	32	30,19	74	69,81	106
II	37	37,76	61	62,24	98
III	31	36,05	55	63,95	86
IV	36	42,86	48	57,14	84
V	28	41,18	40	58,82	68
Total	164	37,10	278	62,60	44

The percentage ratio between the number of freshmen and graduates:

- 1991-1996 – 167-151 (90,42%)
- 1992-1997 – 87-96 (110,34%)\*
- 1993-1998 – 72-69 (95,83%)
- 1994-1999 – 44-53 (120,45%)\*
- 1995-2000 – 55-50 (90,9%)

\*Note: In some years the number of graduates is larger than a number of graduates because some of the dental students transfer from the dental schools in other countries or from the Faculty of General Medicine. In fact, we have a two-year dental program for the medical doctors that decide to requalify.

### **Visitors Comments**

See Visitors General Comments below

### **19.2 POSTGRADUATE COURSES**

After accomplishment of the 5-year program at the faculty of stomatology graduates apply to a 3-year residency program, which includes training in general and pediatric dentistry an or a 2-year clinical probation in orthodontics, pediatric stomatology, therapeutic

stomatology or prosthodontics on mandatory bases. This post-graduate education program is organized within the university.

Master's degree – a 2-year program.

Fellowship – a 2-year program after completing residency or MD.

Doctorate – 3 to 4 years program (Doctorate Degree in Medicine), demands presenting of the scientific thesis.

Post-doctorate – a 2-year program (Ph.D.).

Dental practitioners are required to take continuing education courses every 3-5 years.

The training is held at the clinical bases of the Faculty of Stomatology

### **Visitors Comments**

See Visitors General Comments below

## **19.3 AUXILLARY / TECHNOLOGY COURSES**

After accomplishment of the 5-year program at the faculty of stomatology graduates apply to a 3-year residency program, which includes training in general and pediatric dentistry or a 2-year clinical probation in orthodontics, pediatric stomatology, therapeutic stomatology or prosthodontics. Residency is organized on mandatory bases. This post-graduate education program is organized within the university.

Others:

Master's degree – a 2-year program.

Residency – a 2-year program after completing residency or MD.

Doctorate – 3 to 4 years program (Doctorate Degree in Medicine), demands presenting of the scientific thesis.

Post-doctorate – a 2-year program (Ph.D.).

Dental practitioners are required to take continuing education courses every 3-5 years.

The training is held at the clinical bases of the Faculty of Stomatology.

### **Visitors Comments**

See Visitors General Comments below

## **19.4 STUDENT COUNSELING SERVICES**

Curriculum and syllabus counselling services are given by the dean and vice-dean of the Faculty as well as the chairmen of the departments and vice-rector of the Educational Process. Financial questions are discussed with the accounting department and the vice-rector of the Educational Process.

### **Visitors Comments**

See Visitors General Comments below

## **Visitors General Comments**

The students constitute a great intellectual potential at this School. They are dedicated to the field of their study, they are open to new ideas and insights, approaches and discussions, eager to learn and develop contact with fellow students from other dental schools. They are very proud of their School and loyal to their teachers

There is a very strong feeling among the students that there is an excessive amount of time demanded of them with insufficient time for other activities. The Visitors agree. Scheduling is a problem with time wasted in the middle of the day for some where the separation between buildings. It emerged that a student's day went from 08:00 – 19:00 per day (sometimes with an inordinate amount of time wasted in travelling to another centre that could take more than 30 minutes).

The students were happy with the format of their assessment despite the serious reservations expressed by the Visitors in this respect. Nevertheless the students would prefer if the amount of assessment were to be reduced in time. Students in discussion did not feel they were passive learners in the clinical subjects but this was the case in the pre-clinical, para-clinical and human disease areas.

[put a note on ergonomics]

There must be serious concern about the physical resources. There is not enough room for students to work in clinics and laboratories and this is a real problem that refurbishment will not correct. The Visitors reached the conclusion that the only solution to the crowding was a reduction in the number of students by one third to 40 and to seek to build a 7,000 square metre building for 50m.

The students were concerned that they were introduced to patient care too late in the curriculum and the Visitors would support this observation although the solution is limited by space available in the clinic.

There was concern that students did not gain the same level of competence as in other dental schools and the reasons for this are probably related to poor facilities overcrowding as well as an excessive emphasis on the medical subjects.

The students were critical of the level of detail in the component sections of human diseases. Some students were of the view that it was important to have a broad medical base. The Visitors were of the view that the Human Diseases were very fundamental but could be improved upon if they were reduced both in detail and in the amount of time spent.

### **Practice management and financial management in dental practice**

There was concern that students did not have an opportunity to be involved in a continuum of patient care. This was also observed by the Visitors and it appeared that students did not have any experience of integrated patient care.



Some made the point that there was some uncertainty as to what was expected of them upon qualification

There was concern about their competence in clinical dentistry

The students complained about inadequate facilities, overcrowded conditions and insufficient funding.

The students were enormously supportive of their teachers and praised them for their efforts. They believed that they had a very good training programme in the circumstances of their conditions and housing

There is no barrier between teachers and students and this is to be commended as exemplary.

They felt that their clinical education and training was good.

The "official" students' communication with the Faculty are the Academic and Faculty Councils, where the students have two representatives in each.

The amount of factual information students are exposed to is too extensive. They have little time for personal development outside the academic field – time for reflections and thought, sports and other hobbies. The concept of tutoring seems to be not understood here.

Students do have their own student association - Moldovan Dental Student organization. The contact with colleagues from outside of Moldova, however, seems to be limited since there are no possibilities of student exchange at the moment. Nevertheless, there is the possibility of collaborating with the fellow students from European Dental Student Association (EDSA), where students are welcomed and encouraged to develop dialogue, exchange of ideas with their colleagues in other parts of Europe.

The Visitors met and were enormously impressed with student leaders and the magazine they produced and their web site. They interviewed the Visitors and asked searching and extremely relevant questions on the future of dentistry.

We noted difference in the quality of equipment between the staff surgeries and the student facilities.

The students were of the view that there could be greater coordination with and between the subjects in the curriculum

The changeover of students at 10:30 was not explained on the basis of a logical sequencing of work.

## **Section 20 Research and Publications**

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### **20.1 NUMBER OF PUBLICATIONS IN REFEREED JOURNALS**

Within a period of 1997-1999 the number of publications by the staff of the university is 55.

#### **Visitors Comments**

See Visitors General Comments below

### **20.2 NUMBER OF TEXTBOOKS PUBLISHED BY STAFF**

Within a period of 1997-1999 the number textbooks published by all departments is 98.

#### **Visitors Comments**

See Visitors General Comments below

### **21.3 GRANTS RECEIVED**

> €1,000

#### **Visitors Comments**

See Visitors General Comments below

### **20.4 NUMBER OF INVITED PRESENTATIONS AT INTERNATIONAL MEETINGS**

No specific information was given: See Section 21.6 and 21.7 below

#### **Visitors Comments**

See Visitors General Comments below

### **20.5 SCIENTIFIC RESEARCH ACTIVITY OF STAFF**

All departments of the Faculty of Stomatology have concrete plans for every collaborator, concerning the themes of scientific research. The control of scientific work is performed by the heads of departments and its scientific co-ordinators.

Subjects of research, aims, tasks and obtained results are made up by every competitor in part, discussed at departments, commission of experts and faculty scientific Council. Gathering of experimental and theoretical material is done by every researcher independently. Clinico-biological, biochemical and of other type research are performed by all faculty collaborators at Central Scientific Research Laboratory of the University, as well as in clinical laboratories of republican and municipal hospitals or in scientific research laboratories of different institutes of the Academy of Sciences from the Republic of Moldova.

The final result of scientific research is the thesis public presentation as part of the session of the scientific Council specialized in surgery. The only scientific research laboratory in the field of emergency cases in oro-maxillo-facial surgery functions within the faculty and is situated at the Department of Oro-maxillo-facial Surgery. All basic staff is trained in performing scientific research within faculty departments.

The number of the staff trained in scientific research at departments is shown in Table III.

Department	Total Collaborators	Ph.D., professors	M.D., assistant professors	Lecturers
Therapeutic stomatology	10	2	5	3
Orthopaedic stomatology	7	1	5	1
Paediatric stomatology	11	1	2	8
Oro-maxillo-facial surgery	8	1	3	4
Total	36	5	15	16

**Table III:** Number of staff trained in scientific research at departments

Taking into account the fact that at the faculty only one scientific laboratory (Oro-maxillo-facial Surgery Department) activates, the scientific researcher/didactic staff report is 1:48.

Besides publications of hundreds of theses and scientific articles in national and international press of medical specialty, collaborators of the stomatological faculty have taken 1 Ph.D. thesis, 9 MD theses, and have elaborated 6 inventions in the field of stomatology for the last 5 years.

The results of the research are assessed in different ways:

- At department sessions.
- At clinical conferences.
- At symposiums, national and international seminars.
- At yearly faculty (university) scientific conferences.
- At national and international congresses.

- Publications in the press of specialty (journals, work collections, theses, etc).
- Doctorate and Ph.D. theses in medical science.
- Monographs and other publications.
- Methodical elaboration.

Besides this, result evaluation of research is done by applying in practice at the level of the municipal, republican, multi departmental and inter state clinics.

Internal scientific collaboration is performed:

- between departments of stomatological profile;
- between departments of stomatological profile and fundamental ones;
- between departments of stomatological and general profile;
- between departments of stomatological profile and Central Scientific Research Laboratory.

In 1999 for the purpose of international scientific collaboration, the faculty of stomatology concluded a collaboration convention with the faculty of stomatology of MphU “ Gh.T.Popa” Iasi, Rumania, which foresees realization of common investigations different scientific themes, elaboration of scientific reports, publications, participation at scientific forums, etc.

Scientific research results are reported at yearly university scientific conferences, national congresses of stomatologists (I; II; III;), other diverse national and international scientific forums (congresses, symposiums, seminars). In the national press of specialty and from abroad, obtained scientific results (articles, theses) are published, innovation or invention patents are received.

An overview of the scientific activities of the departments in the period 1995 – 2000 is shown in Table IV.

Department	Publications(article s, theses)	Innovation pat-ents	Invention pat-ents	National scientific forums organiza-tion	Participation at interna-tional forums
oro-maxillo-facial surgery	128	11	3	1	7
Paediatric stoma-tology	89	16	2	1	4
Orthopaedic sto-matology	75	12	2	4	3
Therapeutic sto-matology	145	26	2	4	5
Total	437	65	9	10	19

**Table IV:** Scientific activity of the departments 1995-2000

Yearly the faculty of stomatology organizes scientific conferences dedicated to “ Univer-sity Days”. Scientific investigation results obtained by collaborators and students are re-ported at these conferences. For the last 5 years, the faculty organizes scientific-

practical conferences within the International Exhibition “Moldmedicine” and “Molddent”. In 1999, together with the stomatologists’ association, the 3<sup>rd</sup> National Congress of stomatologists with international participation was organized, and in 2000 – Stomatologists’ Republican Conference within the international exhibition “Moldmedicine – 2000”.

It is becoming a tradition the organization of symposium diverse scientific-practical problems with presentation of different firms “Schuler – Dental” (Germany), “Dentsply” (Great Britain), firms from the Czech Republic and Slovakia (1995 – 2000).

Scientific research results obtained by the collaborators of faculty departments and published in the press of specialty as well as reports presented at different national and international scientific forums were at the basis of obtaining the authority and recognition of faculty scientists in the country and abroad. Due to this fact, professor I.Postolachi was awarded the degree of Honoured Scientist, professor S.Sirbu – Honoured Member of the High School, professor P.Godoroja – Honoured Member of the Romania-American Academy, professor D. Shcerbatiuc – Honoured Member of the Medical Academy from Romania. The scientists from the faculty take part in different editorial Committees of scientific work collections, materials from conferences, congresses, symposiums.

About the scientific recognition of the scientists, it is mentioned in the references of foreign scientists in the literature of specialty concerning the results obtained by faculty collaborators. Another argument of this recognition is the invitation of faculty scientists at different international forums in USA, Romania, France, Switzerland, Sweden, etc.

### ***Implementation of scientific research results in the process of study.***

All scientific research results are included in curricula by elaboration of methodical recommendations for students and residents, at lectures, practical works at the following compartments:

- Periodontology (diagnostics, conservative, physiotherapeutic treatment and affections prophylaxis of marginal paradontia ) – S.Ciobanu,
- V.Alexeev. Bucal mucous membrane affections (diagnostics, treatment and prophylaxis) – Gh.Nicolau;
- Dental decay (treatment) – A.Terehov;
- Apical periodontitis (diagnostics and treatment – V.Nicolaiciuc;
- Schistopalatine surgical and orthopaedic treatment – I. Lupan, I.Baidaiz;
- Odontogenic cysts diagnosis and treatment – V. Simenovich;
- Dental fluorosis at children – I. Spinei;
- Odontogenic infections diagnosis and treatment – D. Scerbatiuc;
- Madelung lipomatosis surgical treatment – V. Topalo, A. Chiobanu;
- Dental tissues protection before and after shell crown application – I.Postolachi;
- Methods of treatment of pulpitis at children – S. Sirbu;
- Early diagnosis and the method of complex treatment of temporo-mandibular articulation dysfunction, produced by partial edentia – V.Banuh;
- Diagnosis and complex treatment of open occlusions at adults – M.Cojocaru;

- Modern conceptions of re-prosthetics the patients with mobilizable and mobile prostheses – N. Cojuhari;
- The methods of prosthetic treatment with dental bridges of sparing the dental tissues – V. Gututui;
- Modern aspects of treatment patients with post-resection and maxillo-facial prostheses – V. Gamureac;
- Application of modernized joints in the post-resection prostheses – V. Gamureac;
- The conception of partial mobilizable prostheses in partial subtotal edentia in accordance with the local biological indexes – N. Bajurea;
- The concept of manufacturing the dental bridges in partial terminal edentia – F. Gheorgita;
- The method of complex treating of vertical dental migrations – M. Cojocaru;
- Utilization of the mixed metallo-acrylic crown, elaborated by the department – I. Postolachi.

***Providing the disciplines on specialty with didactico-methodical literature.***

The process of education is fully provided with text-books, didactical materials on specialty and technical materials, instruments, apparatus. At all profile departments the texts of lectures, which are annually revised and completed with new realizations in the domain of discipline have been elaborated according to the analytical programs of education. Together with this didactical materials, according to the thematic plans of the practical lessons, the methodical indications, which are partially published and multiplied, have been elaborated by each department .

In the purpose of assessment and self-assessment of the students' knowledge each department has elaborated sets of tests, use transparent foils, tables, slides, videos etc. Each department has computers, connected to Internet. The disciplines of the faculty are fully provided with text-books and didactical materials.

The students and collaborators use the university library. The students are fully supplied with literature on specialty in Romanian , Russian, English, France and other languages, and also with other bibliographical sources. All students of the Faculty are supplied with textbooks for disciplines of stomatological profile. At the departments there are lists of textbooks, recommended for the process of education.

***Contribution of the staff of specialty departments in didactic-methodical ensuring of the process of education and its analysis (the number of published papers, their structure, volume, number printed, etc.)***

In the purpose of ensuring the didactical process at the Faculty's departments text-books, courses, methodical elaborations, tests etc., have been published and the University library has them in a sufficient number.

An overview of the course- and, text-books, elaboration of new methods and other didactical materials, published by the departments is shown in Table V.

Nr	Title of publication	Type of publication	Authors	Year of publication	Edition
1	The course of infantile stomatology	Course book	P.Godoroja, V.Burlacu	1992	50 (8.0)
2	Tests in orthodontics	Testbook	P.Godoroja	1998	20 (4.0)
3	Tests in stomatology	Testbook	P.Godoroja	1999	50 (27.3)
4	Tumors of head and neck at children	Monography	P.Godoroja	1981	4,150 (8.35)
5	Surgical stomatology I	Methodological elaboration	A.Gutan, D.Scerbatiuc	1990	150 (5)
6	Surgical stomatology II	Methodological elaboration	A.Gutan, D.Scerbatiuc	1990	150 (5)
7	Tests in training on Oro-maxillo-facial traumas	Testbook	T.Popovici	1992	300 (8.5)
8	Dental implants in stomatology	Methodological elaboration	P.Popovici	1994	500 (2.2)
9	Maxillo-facial operations guide	Guide	A.Gutan, D.Scerbatiuc et al.	1997	5,000 (25)
10	Tests in oral and maxillo-facial surgery	Tests	T.Popovici	1999	500 (18.2)
11	Pharmaco-therapy of stomatological affections	Guide	S.Sirbu, V.Ghicavai et al.	1997	300 (18.0)
12	Method of administration of medicines on the base of calcium oxide hydrate	Methodological Elaboration	V.Burlacu, S.Sirbu, P.Gnatiuc	1993	400 (0.5)
13	Classification of affections and tissues of buccal cavity	Methodological elaboration	S.Sirbu	1993	400 (1.0)

Table Va: Course- and text-books, methodical elaborations and other didactical materials, published by the departments

Nr	Title of publication	Type of publication	Authors	Year of publication	Edition
14	Guide of pharmaco-therapy of the main stomatologic diseases	Guide	V.Ghicavai S.Sirbu	1990	300 (18)
15	The role of some regulines in buccal planus lichen medication	Guide	Gh.Nicolau	1999	250 (1.0)
16	Means of biological protection on the buccal cavity level	Guide	S. Ciobanu	1997	100 (1.2)
17	Organization of complex investigation of patients	Guide	P. Godoroga A. Baraniuc	1992	100 (1.0)
18	Didactical game with the role of subject on the theme 'Diagnosis and differential diagnosis'	Guide	P. Godoroga A. Baraniuc	1993	500 (1.0)
19	Buccal planus lichen. Etiology, clinical picture, up-to-date treatment	Methodological elaboration	Gh. Nicolau	1999	500 (4.0)
20	Dental prosthetics	Manual	I.Postolachi et al.	1993	2,030 (28)
21	Techniques of manufacturing dental prostheses	Manual	I.Postolachi, Gh. Barsa	1994	2,034 (25)

Table Vb: Course- and text-books, methodical elaborations and other didactical materials, published by the departments (cont.)

### **Visitors General Comments**

The information provided in the self-study report concerning research is extensive and the faculty is to be complimented on the emphasis placed on research outcome.

The contributions in textbooks and handbooks are original contributions from Faculty of the dental school, but also translations by Faculty members of first class international textbooks. These contributions are mainly for teaching purposes.

The Visitors were very conscious of the conditions and competing demands on the members of the Faculty in Chişinău but nevertheless the future of any academic institution will be strongly influenced by the quality and quantity of publications in refereed scientific journals. This will need more emphasis on publishing in international refereed journals. Perhaps consideration might be given to establishing a coherent strategic plan of development and investing in sending young talented staff to have training in scientific methods in order to compliment existing efforts which are to be strongly commended. Publishing in English is strongly recommended.

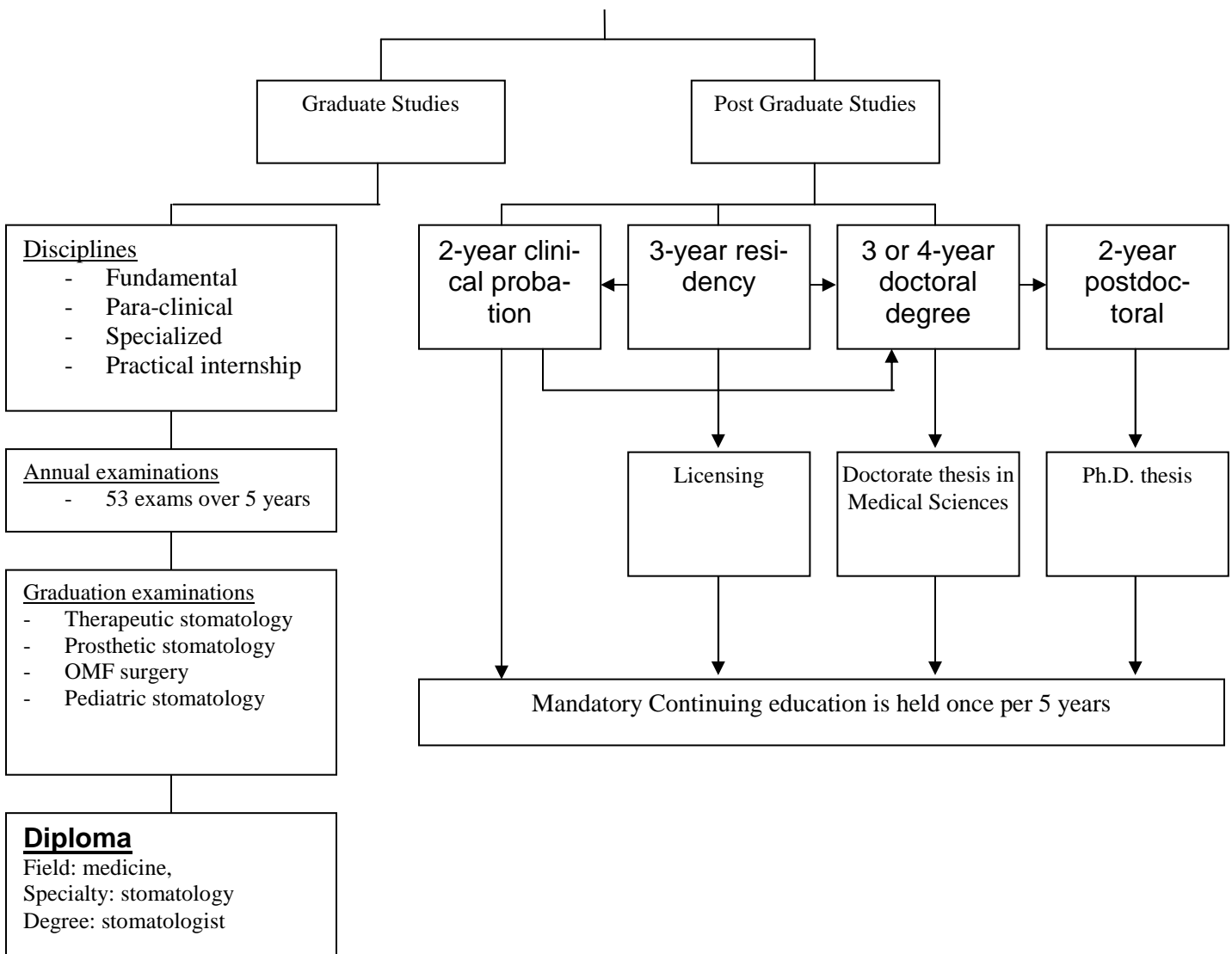
Students commended their School's leadership. Visitors had met only 13 students and would prefer to have had a wider range opinion.



## Section 21 Quality Development Continuous Improvement Policies/ Schemes

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Training Structure Provided by the Department of Stomatology  
 State University of N. Testemitanu



## **Section 22**

# **Visitors Comments and Executive Summary**

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The Visitors wish to express their gratitude for the warm reception and gracious hospitality given to them by the Dean and Staff of the Faculty of Stomatology.

The achievements in the Faculty of Stomatology are impressive particularly when one recognises the circumstances that had previously prevailed, economic and political upheaval in Moldova and a rapidly changing set of influences additional to the explosion in knowledge that affects all universities and Dental Medicine Faculties throughout the world have been major challenges to this School.

There are detailed comments in each section of the Report. In a five day visit it is not possible to review all elements of the curriculum, least of all get involved in the detail of individual departments and their range of individual programmes. Inevitably there will be some misunderstandings and the Visitors apologise in advance for their shortcomings. It was not the Visitors' intention to attempt to compare the Faculty in Chişinău with other dental schools but inevitably Visitors views are influenced by their own background and special areas of interest.

Throughout the visit the Visitors were at pains to explain that they had no legal status, were not inspecting the Faculty nor was there any element of an accreditation process involved. Visitors were there to comment on the self-assessment, debate issues as equals and make recommendations that were entirely for the School.

If there is one comment that would summarise the Visitors opinion it is that the curriculum is too crowded with excessive detail and too little emphasis on learning and acquiring the skills to become life long learners. In other words there was a perception that some of the educators in Chişinău believed they could teach the students everything they needed to know in the five-year programme and the Visitors considered this unrealistic.

The Visitors commend for further analysis by the Faculty the guidelines on student competences set out by the Advisory Committee on the Training of Dental Practitioners as a useful set of educational objectives. It was apparent from the aims and objectives that there would be merit in revising some of the educational aims and objectives of other schools visited whose reports are available at [www.dented.org](http://www.dented.org).

The Visitors stressed that on completion of the Faculty of Stomatology's training programme the new dentists were only at the beginning of a lifetime of learning and this needs to be impressed not alone upon the students but also on educators. Dentists were likely to spend their time in the care of patients' oral and dental tissues in the context of comprehensive patient care. It was desirable that they should also have a broadly based medical understanding. However, realistically a five-year training programme

would not allow those general medical competences that are gained by the medical students. The Visitors were concerned that theoretical training in the medical sciences would not confer the essential competence required of a dentist in life support despite all of the time devoted to the medical sciences. Also the point was made that skills gained, unless frequently used in day to day practice, will not necessarily be retained.

A balance needs to be struck and agreed by Faculty and students as to what can and should be learned by students and what specific competences need to be acquired and then reliably, consistently and validly assessed. The Visitors noted that there had been ongoing change and while this is commended such change might be implemented on a five-year basis without it being perceived that the curriculum was taking different directions every year or two.

If the curriculum were to be adapted to become similar to those based on Dental Medicine in the European Union it would require further emphasis on dental clinical competences as set out by EU advisory Committee.

A Power Point presentation delivered on behalf of the Visitors at presented by Professor Rotgans 28 November 2001 summarised the main findings and is available from [jerome.rotgans@t-online.de](mailto:jerome.rotgans@t-online.de).

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