



**MEDICAL ACADEMY OF LATVIA/  
RIGA STRADINS UNIVERSITY**

**FACULTY OF STOMATOLOGY**

**RIGA**

**DentEd Visitation**

**17-21 JUNE 2000**

**Part I      School Self Assessment**  
**Part II      Visitors Comments**

**Visitors**

Gottfried Schmalz	Regensburg	Chairman
Liam Convery	Dublin	Rapporteur
Dorthe Arenholt-Bindslev	Aarhus	
Vera Hubkova	Hredec Kralove	

## **Part I School Self Assessment**

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The presentation of this report was only possible due to the support of all Departments involved in education of dentists in the Medical Academy of Latvia/Riga Stradins University. I would like to express my gratitude to all of those who helped and supported.

My special thanks go to secretariat staff for efficient technical assistance.

*Ilze Akota*

*Dean of the Faculty of Stomatology*

## **APPENDICES**

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**APPENDIX 2**

**COURSES BY DEPARTMENTS**

**APPENDIX 3**

**Stomatology Instiute as a WHO collaborating centre  
In Continuing Dental Education 1995-2003**

**APPENDIX 4**

**Tempus Phare JEP 12538 – 97 “Development of  
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**APPENDIX 5**

**Oral Health centre and Fund at the Medical  
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**APPENDIX 6**

**Dental Hygienists School at the Medical Academy of  
Latvia – Institute of Stomatology**

## **SECTION 1**

# **INTRODUCTION AND GENERAL DESCRIPTION**

## 1. INTRODUCTION AND GENERAL DESCRIPTION

At present Faculty of Stomatology is one of the basic structural units of the Latvian Medical Academy / Riga Stradins University (AML/ RSU).

In 1921 in Medical Faculty of the Latvian University a department of Stomatology was founded. Therefore we consider this year as the foundation year of our faculty, though as an independent faculty it was established in 1950.

AML/RSU is the only higher school in Latvia where in Faculty of Stomatology one can acquire the degree of a dentist.

One of structural units of AML/RSU is Oral Hygienist School, where in the framework of one-year studies dental hygienists are trained (See Appendix 6).

The current enrolment is 30 -35 students per annum from Latvia. Some students from other countries are enrolled, they pay tuition fee and are included in the groups where language of instruction is English. In the academic year of 1999/2000 there were 67 applicants for 44 places, thus the mean coefficient of the competition was 1.52.

The length of studies is five years. Students take examinations at the end of each semester (twice an academic year) and the final examinations in the speciality - at the end of the fifth year.

In accordance with the existing system of practising of dentists in this country, persons having graduating Faculty of Stomatology acquire qualification of a dentist and rights to practise general dentistry under supervision of a certified dentist. After employment, which has lasted not less than two years, a dentist acquires rights to apply documents to Certification Committee of Latvian Dental Association and take certification examination. Two-year practising has been determined for new graduates in order to widen professional knowledge, practical skills and experience. Latvian Dental Association is responsible for awarding the certificate allowing practising general dentistry independently as well as opening a private dental practise.

It is possible to continue education in post-graduation studies and completing the programme obtain a degree of a specialist in the following dental specialities – Orthodontics, Paedodontics, Prosthodontics, Periodontology as well as in other speciality - Oral and Maxillofacial surgery.

### **General description of curriculum (see Appendix 1)**

In the first year the main attention is devoted to fundamental and basic medical subjects - anatomy, histology, chemistry, physics and biology as well as Latin and a foreign language. The study courses of these subjects have been elaborated in close connection with future specialities. Besides above-mentioned there are courses in dental anatomy and biomaterials.

In the second and third years pre-clinical and para-clinical sciences are studied. Simultaneously with normal physiology, microbiology, genetics, pharmacology, pathological anatomy and physiology students get acquainted with human diseases -general surgery, dermatovenerology, internal diseases, infection diseases, paediatrics, psychiatry, otolaryngology and their relation to oral diseases. At the same time undergraduates start studying pre-clinical sciences directly related to dentistry - topographic anatomy and operative



surgery of oral and maxillofacial region, operative dentistry, roentgenology, prevention of oral diseases, microbiology, oral physiology and morphology. Students master practical skills on phantom heads. Undergraduates acquire skills to take pressures for making dentures, to perform intra-oral injections as well as to practise in preventive dentistry and oral hygiene.

The fourth and fifth years are mainly devoted to clinical sciences. Applying the previous knowledge undergraduates treat patients with oral diseases (cariology, endodontics, periodontology, perform exodontics and minor oral surgery, make dentures). A certain time is devoted to paediatric dentistry and orthodontics. Students get acquainted with features of oral diseases in childhood, as well as with different congenital malformations and their treatment. In the fourth year undergraduates widen their knowledge in roentgenology, get acquainted with forensic medicine, disaster medicine and environmental and professional diseases. In the fifth year students are prepared for complex treatment of patients with oral diseases.

The students of all faculties receive education in different departments, which are situated in the central building of AML/RSU as well as in several clinical hospitals in Riga. Specialized subjects of dentistry are studied in the Department of Conservative Dentistry, Department of Prosthodontics, Department of Oral and Maxillofacial Surgery, Department of Oral Pathology, and Department of Orthodontics (see Appendix 2). All these departments are situated in the Institute of Stomatology, which is the base for undergraduate and postgraduate dental studies and specialities related to them (see Appendix 3).

## **SECTION 2**

# **FACILITIES**

- 2.1. CLINICAL FACILITIES**
- 2.2. TEACHING FACILITIES**
- 2.3. TEACHING LABORATORIES**
- 2.4. RESEARCH LABORATORIES**
- 2.5. LIBRARY AND IT**

## 2.1. CLINICAL FACILITIES

The Department of Prosthodontics is equipped with ten dental operating units for teaching process:

- eight are used for patient treatment by the clinical students (the fourth and fifth year),
- two are used for patient treatment by postgraduate students.

The Department of Conservative Dentistry is equipped with 25 dental operating units:

- 22 are used for patient treatment by the clinical students (the third, fourth and fifth year)
- three are used for patient treatment by postgraduates and staff.

The Department of Orthodontics is equipped with four dental operating units for patient treatment by the clinical students (the fourth and fifth year). Additionally four units are available for staff and postgraduates.

The Department of Oral and Maxillofacial Surgery is equipped with 12 operating units:

- six are used for patient treatment by clinical students (the fourth and fifth year),
- six are used for patient treatment by postgraduates and staff.

There is operating room with two units for surgery by staff, post-graduates and students.

The Department has also access to three operating theatres for oral surgical and maxillofacial interventions. Two of these are situated in the same building but one is situated in Centre of Oncology (other part of the city).

Every student has his own working place (except surgery and orthodontics). Equipment is modern but old units will be changed during summer 2000.

## 2.2. TEACHING FACILITIES

Institute of Stomatology is equipped with two lecture rooms (50 and 100 places). In the central building of AML/RSU, situated next to Institute of Stomatology 4 lecture rooms with 790 places are available.

Every department is equipped with seminar room, for teaching in small groups.

The education in biological, pre-clinical and para-clinical sciences and in human diseases is performed at the different departments, which are located in the central building of AML/RSU, Anatomic theatre (located in the centre of city) and clinical hospitals located in different regions of the city.

## 2.3. TEACHING LABORATORIES

There is a room equipped with eight morning units for pre – clinical education in prosthodontics. However, pre – clinical room equipment is insufficient. Equipment being used for casting, polishing and resin processing for demonstration is available.

Pre – clinical teaching in operative dentistry and endodontics there is a room equipped with eight morning units. Each of them is supplied with phantom head, micro motor for handpiece and handpiece.

## 2.4. RESEARCH LABORATORIES

There are no research laboratories in the Institute of Stomatology. However there is an access to laboratories located in other hospitals (for instance histology, cytology, bacteriology, immunology) and other institutions, for instance biomechanical laboratory in Riga Technical University.

AML/RSU includes laboratories of experimental animals and transplantology.

## 2.5. LIBRARY AND IT

The first year students are taking a course in Computer Sciences and induction course on how to use the library and the IT facility that supports it. Constant help from library staff is available as well.

Library Director: Inara Lejniece

E-mail: [amllib@adm.aml.lv](mailto:amllib@adm.aml.lv)

Phone: 2 409196

The library of AML/RSU is centrally located and easily accessible.

Information supply for the Faculty of Stomatology

The library exists for 50 years already. Its task has always been to supply the students and the academic staff with books and all kinds of other information sources. Today we have about 200 students – library users from the Faculty of Stomatology. Book loaning as well as studying in the Information Center of the library is possible. During the years of independence (1991 – 2000) the prices of books have extremely increased. Consequently there are rather many books available exclusively in the reading room. The textbook circulation desk, as to stomatology, is in the worst position. With the exception of some Latvian authors' books of current edition our students have no choice but to study from Russian books of rather old edition.

Our Information Centre is in a better position. One can find there all the best that we have in our library. Some books can be loaned from the Scientific- book circulation desk. Besides our library subscribes or gets as donations medical journals (stomatology – 25 titles).

In September 1998 the Information Centre of the library started its work. It has about 100 seats and some 30-computer workstations. Our students can use Medline on CD-ROM-s as well as on-line (also in EBSCO data base). They can use Internet and they have their own e-mail addresses (though Internet, i.e. “foreign traffic”, is a charged service). We have got a Xerox in our Information Centre and all the necessary material can be copied. All the current literature finds its place in the Centre. And the library has made a guide to the Internet according to the branches of medicine. This guide is accessible from the library home page and has a section “Dentistry”.

The World Health Organization (WHO) Documentation Centre in Latvia also finds its place in our library Information Centre and has materials for dentists as well. If there are documents that our library does not have the user can obtain them via Interlibrary Loan Department (local and international). If the library-supplier is not in Latvia this is a charged service. It would be very nice to find some academic networks supplying the documents at lower prices. Up to now

we have not found such but we have made a project for document supply. This makes it easier for our users (at least for 3 years) to get full text photocopies. You will find all the necessary information concerning our Library and Dentistry in the material attached to this paper:

Library of Medical Academy of Latvia (prospectus)

Library of Medical Academy of Latvia (home page)

An Internet Guide in Stomatology (made by the library)

Our registration for EIFL Direct (EBSCO)

Books in Stomatology

Books ordered

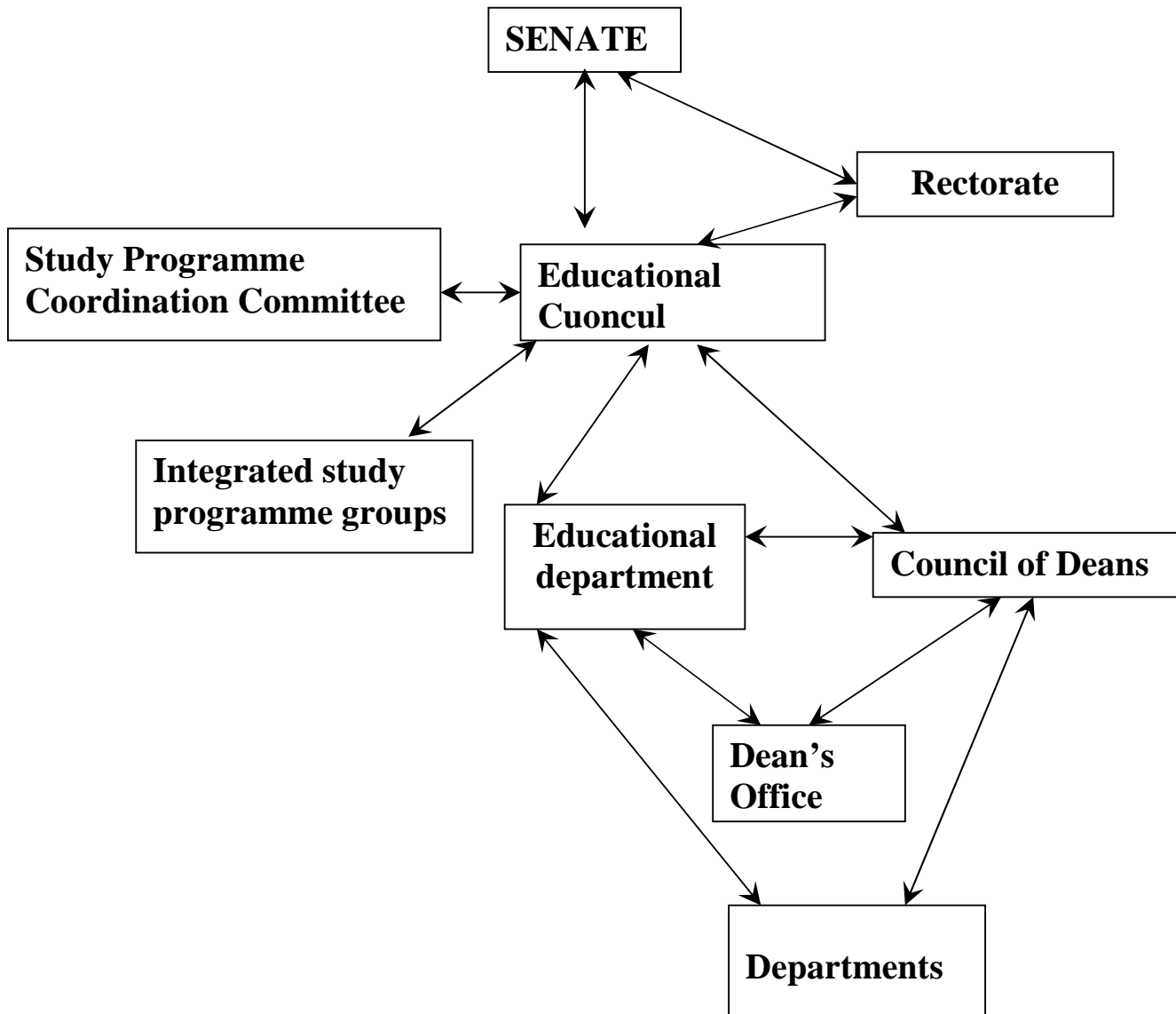
Journals in Stomatology

## **VISITORS' COMMENTS**

## **SECTION 3**

# **ORAGNISATIONAL AND ADMINISTARTIVE STRUCTURES**

## STRUCTURE OF THE AML/RSU



## **STRUCTURAL UNITS OF AML/RSU**

### **1. Faculties:**

- 1.8. Medical faculty including Dept. of Pediatrics
- 1.8. Faculty of Stomatology
- 1.8. Faculty of Pharmacy
- 1.8. Faculty of Nursing
- 1.8. Faculty of Rehabilitation comprised by
  - Academic School of Physiotherapy
  - Academic School of Ergotherapy
  - Academic School of Prothesing – orthosing
  - Academic School of Logopedics
- 1.8. Faculty of Public Health
- 1.8. Faculty of Social Sciences
- 1.8. Faculty of Postgraduate Education

### **2. AML/RSU includes the following academic departments**

- 2.1. Humanities
- 2.2. Medical Biology and Genetics
- 2.3. Physics
- 2.4. Normal physiology
- 2.5. Medical biochemistry
- 2.6. Microbiology
- 2.7. Pharmacology
- 2.8. Pathological Anatomy
- 2.9. Pathological physiology
- 2.10. Public Health and Epidemiology
- 2.11. Rehabilitation
- 2.12. Occupation and Environmental Medicine
- 2.13. Internal Diseases
- 2.14. Surgery
- 2.15. Obstetrics and Gynaecology
- 2.16. Pediatrics
- 2.17. Children Surgery
- 2.18. Infection Diseases
- 2.19. Ophthalmology
- 2.20. Otorhynolaryngology
- 2.21. Anesthesiology and Resuscitation
- 2.22. Psychiatry, Narcology
- 2.23. Psychosomatic Medicine and Psychotherapy
- 2.24. Orthopedics
- 2.25. Family Medicine
- 2.26. Radiology
- 2.27. Neurology and Neurosurgery
- 2.28. Tuberculosis
- 2.29. Dermatovenereology
- 2.30. Forensic Medicine
- 2.31. Group of academic staff in Nursing
- 2.32. Therapeutical Stomatology
- 2.33. Orthodontic
- 2.34. Dental Prothesing



- 2.35. Oral and Maxillofacial Surgery
- 2.36. Oral Pathology
- 2.37. Pharmaceutical Chemistry
- 2.38. Technology of Drug Forms
- 2.39. Communication Studies
- 2.40. Regional Economics and Business
- 2.41. Sociology
- 2.42. Political Sciences

**3. AML/RSU includes the following institutes**

- 3.1. Stomatology Institute
- 3.2. Institute of Occupational and Environmental Health
- 3.3. Immunology Institute
- 3.4. Institute of Anatomy and Anthropology
- 3.5. Institute of History of Medicine
- 3.6. Pharmacology Institute
- 3.7. Institute of family Medicine
- 3.8. Study and Research Centre of Magnetic Resonance, Computed Tomography and Ultrasonography

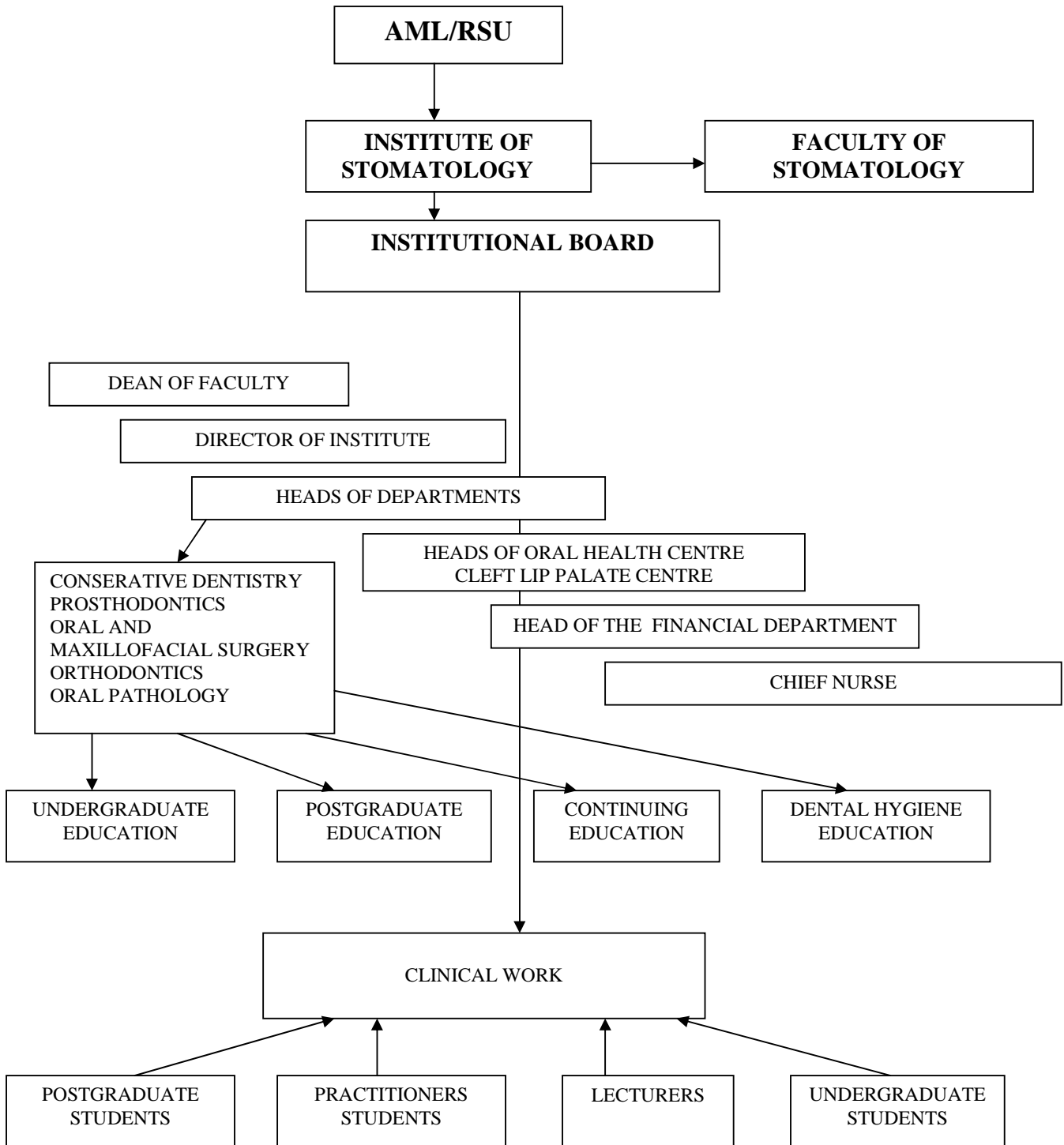
**4. AML/RSU includes the following laboratories:**

- 4.1. Interdepartmental laboratory of experimental animals
- 4.2. Transplantology

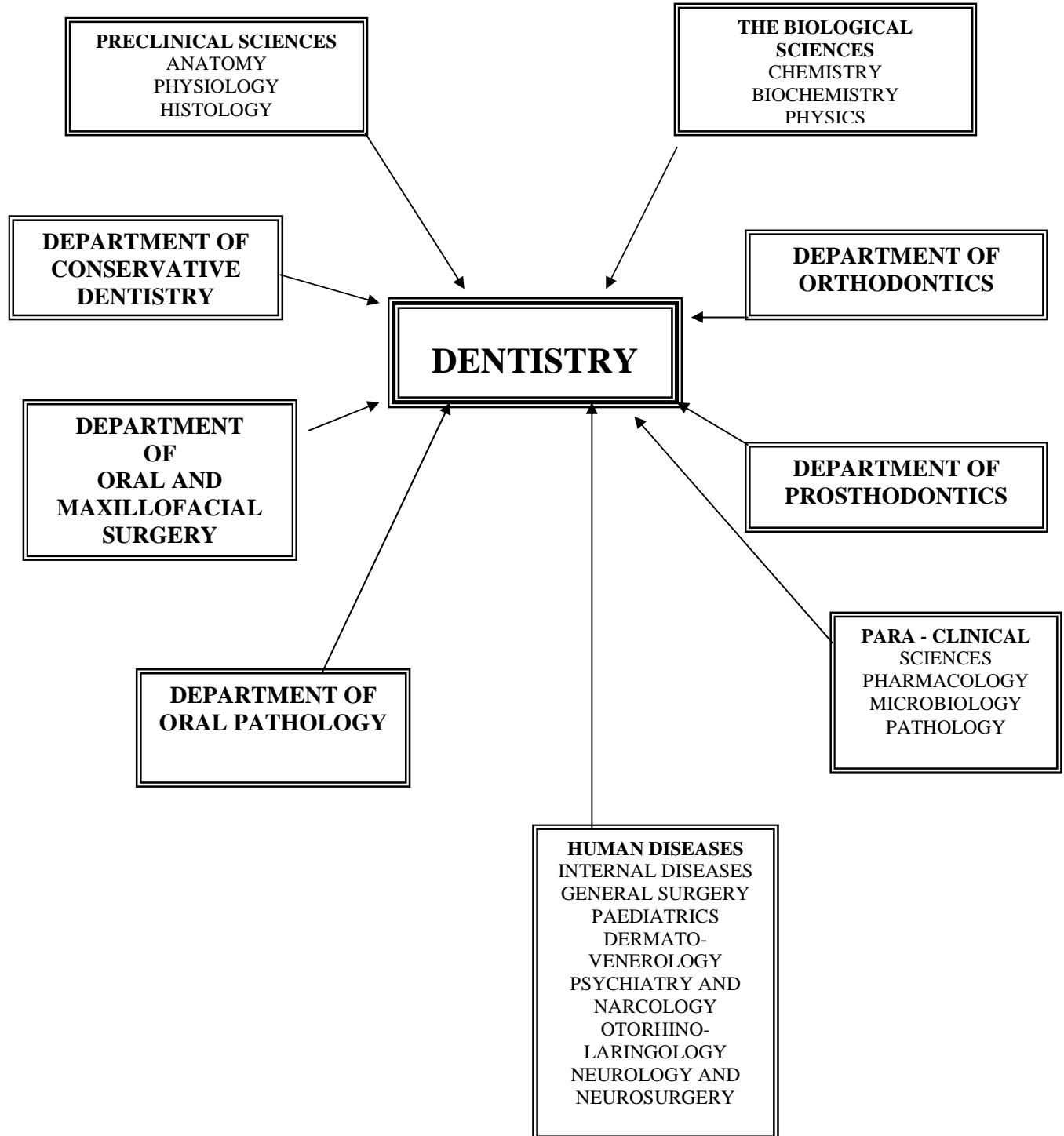
**5. AML/RSU has agreements with the following clinics:**

- 5.1. P. Stradins Clinical University Hospital
- 5.2. Children Clinical University Hospital
- 5.3. Riga selfgovernmental enterprise „Riga City Maternity House”
- 5.4. State Centre of Pathology
- 5.5. State Expertising Centre of Forensic Medicine
- 5.6. Latvian Oncology centre
- 5.7. Riga selfgovernmental enterprise „Health Centre – 5”
- 5.8. Ltd Health Centre „Plavnieki”
- 5.9. State Children Clinical Hospital „Gailezers”
- 5.10. National Rehabilitation Centre „Vaivari”
- 5.11. Railway Hospital Bikernieki
- 5.12. Latvian Infectology Centre
- 5.13. Rehabilitation Centre „Baltezers”
- 5.14. Riga selfgovernmental Ltd „Dzircieba poliklinika”
- 5.15. Riga selfgovernmental Ltd „Riga Hospital No.1”
- 5.16. Riga City Hospital No.7
- 5.17. Ltd Traumatology and orthopedics Hospital
- 5.18. Riga Clinical Hospital No.2
- 5.19. Riga Psychoneurological Hospital
- 5.20. State Centre of Tuberculosis and Pulmonary Diseases
- 5.21. Clinical Centre of Dermal and Sexually Transmissible Diseases

## STRUCTURE OF INSTITUTE OF STOMATOLOGY, AML/RSU



## EDUCATION IN DENTISTRY



## **VISITORS' COMMENTS**

# **SECTION 4**

# **STAFFING**

## **STAFFING**

Most of the staff members are entitled to long – term positions at the faculty. There is a possibility of every staff member to participate in a wide variety of lectures, seminars and courses offered by AML/ RSU and Latvian Dental Association, Latvian Association of Oral and Maxillofacial Surgeons and others. Several members of the staff had stayed abroad for education and development of personal and professional skills. Heads of Departments assist staff in developing their performance and effectiveness.

### **MEDICAL ACADEMY OF LATVIA**

#### **FACULTY OF STOMATOLOGY**

##### **STAFF MEMBERS**

Professors	3
Associated Professors	3
Docents	14
Assistants	20

#### **DEPARTMENT OF CONSERVATIVE DENTISTRY**

**Head** Ruta Care, assoc. professor, DDS, Dr. med.

**Docents** Maija Kucinska, DDS, Dr. med.  
Ruta Rastina, DDS, Dr. med.  
Rita Kundzina, DDS, Dr. med.  
Anda Brinkmane, DDS, Dr. med.  
Egita Senakola, DDS, Dr. med.

**Assistants** Inguna Grinvalde, DDS  
Mara Sungaile, DDS  
Sandra Berzina, DDS  
Inguna Rence – Bambite, DDS  
Inese Mackeviča, DDS  
Ingrida Krasta, DDS  
Anda Mindere, DDS  
Armands Ziraps, DDS

#### **DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY**

**Head** Andrejs Skagers, Professor, M.D., Dr. habil. med.

**Professors** Ingrida Cema, DDS, Dr. habil. med.

**Assoc. professors** Egils Kornevs, DDS, Dr. habil. med.

**Docents** Ilze Akota, DDS, M Sc (Oslo), Dr. med.  
Biruta Barkane, DDS, Dr. med.  
Natalia Grasmane, DDS, Dr. med.  
Marina Sevastjanova, DDS, Dr. med.

**Assistants** Andris Bigestans, M.D., DDS  
Gunars Lauskis, MD, DDS  
Guntars Selga, DDS, Dr. med.  
Aldis Rozenblats, DDS, Dr. med.

#### DEPARTMENT OF PROSTHODONTICS

**Head** Una Soboleva, Docent, DDS, M Sc (Oslo), Dr. med.

**Professor** Peteris Apse, DDS, M Sc (Toronto), Dr. habil. med.

**Docents** Aldis Vidzis, DDS, Dr. med.

**Assistants** Guntis Zigurs, DDS  
Lija Laurina, DDS  
Dzintra Gabrone, DDS  
Lubova Kolosovska, DDS  
Andrejs Stelmaconoks, DDS

#### DEPARTMENT OF ORTHODONTICS

**Head** Ilga Urtane, Assoc. professor, DDS, Dr. med.

**Docent** Irena Jirgensone, DDS, Dr. med.

**Assistants** Gundega Jakobsone, DDS  
Inese Maulina, DDS  
Inta Zepa, DDS

#### DEPARTMENT OF ORAL PATHOLOGY

**Head** Aldis Rozenblats, Docent, DDS, Dr. med.

**Docent** Janis Lasovskis, DDS, Dr. med.

### **VISITORS' COMMENTS**

## **SECTION 5**

# **THE BIOLOGICAL SCIENCES**

**5.1. MEDICAL GENERAL CHEMISTRY**

**5.2. BIOCHEMISTRY**

**5.3. PHYSICS**

**5.4. HUMAN BIOLOGY**

**5.5. MEDICAL GENETICS**

**5.6. LATIN LANGUAGE**

**5.7. BIOMATERIALS**



## **5.1. MEDICAL GENERAL CHEMISTRY**

## **5.2. BIOCHEMISTRY**

## **5.3. PHYSICS**

## **5.4. HUMAN BIOLOGY**

## **5.5. MEDICAL GENETICS**

## **5.6. LATIN LANGUAGE**

## **5.7. BIOMATERIALS**

## **5.1. MEDICAL GENERAL CHEMISTRY**

## **5.2. BIOCHEMISTRY**

**NAME: Aivars Grinbergs and Dr. habil. med. Vladislavs Korzans**

**ADDRESS: 16 Dzirciema Str., Riga, LV – 1007, Ph. 2 409166**

### **1. INTRODUCTION**

The Biochemistry course is taught at the faculty of Stomatology of the Medical Academia of Latvia. The course includes the following matter.

Chemical sciences and biochemistry. Bioinorganic and bioorganic compounds. Chemical structure and properties of amino acids. Protein conformation, dynamics and function. Enzyme structure and mechanism. Vitamins and coenzymes: chemical structure and function. Functional aspects of minerals. Biochemistry of digestion. Basic principles of molecular bioenergetics. Chemiosmotic conception. Metabolism: general introduction. Metabolism of carbohydrates. Metabolism of lipids. Metabolism of proteins and amino acids. Conversion of amino acids into specialized products. Hormones. Integration and regulation of metabolism. Biochemistry of nutrition. Pathological and clinical chemistry: elementary introduction.

### **2. PRIMARY AIMS**

The course aims to give the student the basic concepts of chemical processes in living organisms - of metabolism and energy transformation.

### **3. MAIN OBJECTIVES**

By the end of the course the student should have:

- 1) A basic knowledge of the specific principles of biochemistry and biochemical thinking,
- 2) An understanding of the structure and function of biomacromolecules,
- 3) An understanding of the basic pathways of metabolism,
- 4) An understanding of how metabolic processes are integrated and regulated,
- 5) Studied molecular aspects of living phenomena,
- 6) Developed an ability to relate experimental results obtained in the laboratory and the conclusions derived from them.

## **4. HOURS IN THE CURRICULUM**

Lectures - 70 hours

Practical training - 105 hours

Students are expected to spend approximately 100 hours or more in self-directed learning

## **5. METHODS OF LEARNING AND TEACHING**

The primary mode of teaching on the course is the lecture. Apart from imparting factual information, the lecturers aim to indicate recent research and provide personal view of a topic. The lectures are supported by practical experimental sessions. Student learning is facilitated by group tutorial sessions held regularly throughout the course. These sessions tend to use a problem based learning approach and offer the students to ask their tutors direct questions about material they haven't understood. Past examination papers are made available to all students through the tutorial sessions and tutors are able to give their students feedback on their performance in course assessments.

## **6. ASSESSMENT METHODS**

During the year there are six in-course assessments. Each test has one essay-style question several short factual questions. At the end of each practical assignment, students are asked to complete a pro-forma indicating their experimental results, their methods of analysis and interpretation of the data generated. More extensive questions relating to the topic of the practical area also included encouraging students to read around the subject area and demonstrate their understanding of the subject matter. The course in its totality is been examined in a two hour written examination.

## **7. STRENGTHS**

The course is taught as a course for stomatologists. This allows the course to be taught with greater relevance to questions of dentistry.

## **8. WEAKNESS**

The lack of clinical exposure during the early years may be perceived as a weakness in providing dental-related examples and in emphasizing the true relevance of biochemistry to dentistry.

## **9. INNOVATIONS AND BEST PRACTICES**

Dental students are taught as an independent group. Small group teaching, in the form of tutorials, enables the development of a good rapport between staff and students.

## **10. PLANS FOR FUTURE CHANGES**

As part of the curriculum redevelopment, biochemistry including molecular biology teaching will be a major component of the Foundation Theme. The proposal to expose students to a clinical environment from the start of course will help in illustrating the clinical relevance of biochemistry. Anatomy, physiology and biochemistry teaching will be integrated in a number of topic areas, e.g. molecules, cells and tissues.

### **5.3. PHYSICS**

**NAME: Docent Imants Kalnins**

**ADDRESS: Dzirciema street 16, Riga, Latvia LV - 1007, ph. 2 409 171**

#### **1. INTRODUCTION**

The Physics course for dentistry is taught at the physics department in Latvian Academy of Medicine. Students begin course at the first semester and continue in the second of the 1<sup>st</sup> year of studies.

#### **2. PRIMARY AIMS**

The course aims to give the students knowledge and practical abilities in physics, technical physics, biophysics, applied mathematics and statistics necessary for other courses and for practical dentist's work. The course also aims to introduce students to the theoretical and practical use of physical and mathematical methods and technical means in practical work and scientific research.

#### **3. MAIN OBJECTIVES**

By the end of the course students should have:

1. Theoretical knowledge about physical processes in living systems.
2. Understanding of environmental and industrial factors acting on the human and biophysical processes induced by these factors.
3. Ability of using laboratory equipment for measuring physical values.
4. Basic statistical methods for processing of biomedical information.
5. Developed an ability of experimental use of different physical apparatus with particular reference to medicine.
6. Knowledge of biomechanics in oral cavity.

#### **4. HOURS IN THE CURRICULUM**

The course currently involves 53 hours of lectures, 70 hours of practical work in physical laboratories. There are 50 hours in self - directed learning with adequate help of academic staff.

#### **5. METHODS OF TEACHING AND LEARNING**

The basic knowledge is given by lectures in which are made indications of basically concepts of course. There is given also methodical counsels of how to use a textbook, and professor's point of view of different topics. They are supported by seminar type of working sessions, which are re-enforcing material given in lectures and laboratory work. The students also can put direct questions to tutors about material, which they have not understood.

The principal methods in learning are using of cybernetics in all the practical works. Students get all the programs and examination questions and they study under supervision of professors. Students can approach the professors at any time. There are special hours in which students can meet them and ask questions about material they haven't understood. There can be discussed all questions, which are related to learning process. All methodical actions are directed to profession of dentistry.

Parallel to lectures there is practical works in laboratory. Contents of laboratory works correspond to the problems in dentistry and are connected to theoretical material of lectures.

## **6. ASSESSMENT METHODS**

All parts of the course are assessed all the time in learning process. The pass mark in all assessments is 70%. These assessments during the year are good feedback in learning process. There are multiple choice tests during academic year. All tests are made in written form, which contains theoretical questions and practical problems, connected with medicine. The assessment points of these tests accumulated during the year are taken in account for the test at the end of each semester. There is exam at the end of the course in June. Exam is performed in written form. The students are given one and half hours to answer 5 questions. The results are assessed in 10 - point grade system and are fixed in a student's assessment booklet. If student does not get enough points in examination, he can repeat it.

## **7. STRENGTHS**

The physics course for dentistry students is a specialized course. This allows take in account the needs of medicine. There are not a big number of students in dentistry allowing direct contact of each student with his tutor. Each student can in every time find his tutor and get support in learning process. This also gives a good feedback for professors, as much as help for students. We have close connections with Latvian Institute of Dentistry and there are regular meetings with staff of professors in the institute, where are discussed all questions related to teaching of physics for dentistry students.

## **8. WEAKNESSES**

The main weaknesses is that students learning physics in the first study year has not much knowledge of their future profession - dentistry. So there are some hardships in perceiving practical examples connected with dentistry and other learning courses. But they can come to physics department for help, if in the later courses and practices in senior courses they meet questions related to physics.

## **9. INNOVATIONS AND BEST PRACTICES**

Dental students are taught as an independent group with special program.

Curriculum feedback from the students is continuously used for changes in curriculum.

There are small groups of students in practical works and seminar sessions, which make good contact between staff and students.

The good contact with Institute of Dentistry helps to keep up with newest information in dentistry.

The professors working with dental students have a long time practice in teaching dental students.

## **10. PLANS FOR FUTURE CHANGES**

Future changes provide more close contact with practical dentistry. The contents of laboratory works will be made more corresponding to dental students needs. The main changes are provided in the questions referring to the materials of dentistry and scientific study of them, and making closer contacts with related courses.

## **5.4. HUMAN BIOLOGY**

**NAME: E.Nagle and A.Krūmiņa**

**ADDRESS: LV 1007 Riga, Dzirciema 16, phone 2 409 174**

### **1. INTRODUCTION**

Human Biology is taught for the 1<sup>st</sup> year students of dentistry at the Department of Medical Biology and Genetics.

The course gives understanding about human as an interrogated system, its origin, development and interaction with other living organisms.

Basic knowledge in biology and chemistry would be helpful in teaching/learning process.

### **2. PRIMARY AIMS**

1. To give the students knowledge about the cell biology, basic principles of heredity, diversity of living organisms, and human development.
2. To develop skills of using this knowledge in medical practice
3. To help understand the role of science in practical fields of medicine.

### **3. MAIN OBJECTIVES**

By the end of the course students should have

1. A basic knowledge about structural and functional unity of a human body, and about influence of environmental factors on human health with particular reference to those with importance to dentistry
2. Partical skills necessary for future studies and future medical practice in microscopy, anthropometry, and somatoscopy
3. Knowledge and skills to solve particular case reports
4. Positive attitude to all living beings and processes in nature, and responsibility for human health prevention.

### **4. HOURS IN THE CURRICULUM**

The course involves 123 hours of contact teaching time (53 h for the lectures, 70 hours for practical classes). Students are encouraged to use textbooks in addition to their lecture notes. Once a week they are offered additional consulting hours (2 h per week) to receive additional explanation or information.

### **5. METHODS OF LEARNING/ TEACHING**

There are two main modes of teaching:

1. Lectures
2. Practical classes

In the lectures the main information about the topic is given. Lecturer provides the students with the innovations not founded in the textbooks and gives personal attitude to the problem. The examples relevant to dentistry are offered. In solution of some problems students are invited to participate actively.

Practical classes are important for learning/teaching in several ways. Students are divided in small groups, and during small group teaching they develop practical skills in cytogenetic and anthropology techniques. Students can improve their communicative skills through case studies and problem solving. It generates critical thinking and encourages cooperation. Students are provided with additional materials needed in learning process – slides, posters, and transparencies. Students also have the opportunity to give their opinion about the course.

## **6. ASSESSMENT METHODS**

1. During the year there are four colloquies (pass mark 5). In the colloquy students have to answer theoretical questions, and in addition to solve problems or answer the microscopic slides. Each student has to answer and demonstrate understanding of the subject every week as well.
  2. Final examination has three parts:
  3. MCQ test
  4. Theoretical answer
  5. Demonstration of practical skills
- Pass mark is 5.

## **7. STRENGTHS**

The course has several strength to its credit.

1. The course is taught specially for the students of dentistry. This allows stressing importance of the subject in the dentistry.
2. Students receive basic information about the subject in Latvian. It is of great importance because of lack of textbooks in Latvian.
3. During practical classes students use and strengthen their knowledge and they develop “self-directed” learning skills.
4. Student-teacher contact provide an opportunity for student feedback and participation in course improvement
5. Regular assessment does not produce gaps in knowledge, which is why students are able to follow the subject and to understand easily lecture material.

## **8. WEAKNESSES**

1. Lack of textbooks, computer techniques and other teaching tools
2. Different level of the student’s knowledge at the beginning of the course
3. Rather weak links between related subjects (e.g. histology, physiology, biochemistry)

## **9. INNOVATION AND BEST PRACTICES**

1. Students knowledge is assessed objectively through structured final examination.
2. Students of dentistry are taught separately from other students.
3. Students are provided with a friendly study atmosphere.

4. Curriculum of the course is revised every year according scientific innovations and students opinions.

## **10. PLANS FOR FUTURE CHANGES**

1. Curriculum redevelopment according novelties in the biological sciences and local needs
2. Better coordination and horizontal integration of the closely related subject
3. Development of problem based learning. Especially in the field of a human ecology.

## **5.5. MEDICAL GENETICS**

**NAME: E.Nagle and A.Krūmiņa**

**ADDRESS: LV 1007 Riga, Dzirciema 16, phone 2 409174**

### **1. INTRODUCTION**

The course of Medical Genetics is taught for the 2nd year students of dentistry at the Department of Medical Biology and Genetics.

The course covers dental genetic pathology, most common genetic pathology and its manifestation, and most important branches of medical genetics.

### **2. PRIMARY AIMS**

1. To form an understanding about dental genetic pathology and to stress the role of a dentist in early diagnosis, prevention and risk prognosis of genetic pathology
2. To show significance of preventive dentistry in case of heritable dental disorders.

### **3. MAIN OBJECTIVES**

By the end of the course students should have:

1. A knowledge about basic achievements in theoretical and practical fields of Medical genetics.
2. an understanding of clinical cases of genetic pathology
3. an attitude about ethical problems in medical genetics
4. Creative skills for scientific research.

### **4. HOURS IN THE CURRICULUM**

The course involves 72 hours of contact teaching time (36 h for the lectures, 36 hours for practical classes). Students are promoted to strengthen and enrich their knowledge by reading textbooks, scientific articles, and through Internet. In addition

Students can attend consulting hours (2 h per week) to receive additional explanation or information.

## 5. METHODS OF LEARNING/ TEACHING

There are two main modes of teaching:

### 1. Lectures

In the lectures students are provided with factual information, basic principles of the subject, and personal attitude of the lecturer to the innovations in the field. Students are encouraged participate actively through the questions to the audience and they are asked to give comments about some topics as well.

### 2. Practical classes

Students learning are continued by small group tutorial hours. During these classes students can have opportunity to work in team (through case studies, problem solving), to develop their communicative skills (through the seminars) and to prepare themselves for research work (through the projects). Students are stimulated to give their evaluation of the topic and of teaching/learning activities. Some optional topics are proposed to work out student's project. Projects are published (bucklets, Internet home page).

They are attending "Šķeltnu centrs" to feel clinical importance of their genetic knowledge.

## 6. ASSESSMENT METHODS

All aspects of the course are assessed throughout the semester. During the semester there are 2 colloquy. Each colloquy consists of the theoretical part and practical part (problem solving, case study or option essay writing). There are assessment of knowledge and presentation skills every week as well (current topic is assessed) by several short factual questions and problem solving. Students also are asked to assess other students tests. They should ask questions and to make comments about the tests. Self-assessment is introduced to develop critical thinking. After the test is done, students with the help of textbooks, scientific articles, lecture notes have to assess evaluate them.

End – of course assessment (final examination) is carried out at the same day and time for all students. They are giving written answers (all students have same questions) to 14 theoretical questions. They also have to solve 1 problem and to write optional essay (3-4 topics are offered for the essay). Final examination pass mark is 5. After final examination students are invited to evaluate the results.

## 7. STRENGTHS

The course has several advantages.

1. Dental students are taught separately from other students. This allows giving knowledge particularly needed in dentistry.
2. The course gives the student's opportunity to develop their communicative skills critical thinking, collaborative work needed in their future clinical practice.
3. Students are stimulated for creative and critical thinking.

## 8. WEAKNESSES

1. Within current Medical genetics course students do not have clinical experience. It would be better if they study the course in the 3<sup>rd</sup> or 4<sup>th</sup> study year, after they have some clinical exposure.
2. There is lack of textbooks and teaching tools that burdens the learning/teaching process.
3. There is a week horizontal and vertical integration among related courses.



## **9. INNOVATION AND BEST PRACTICES**

1. Students are stimulated to learn with help not under control of the tutorial.
2. All activities carried out by small group learning/teaching promotes friendly, creative study environment
3. Students are not burdened with a huge information. Main principles and understanding of a problem is evaluated.

## **10. PLANS FOR FUTURE CHANGES**

1. Regular redevelopment of the curriculum according novelties in general and medical genetics
2. Establishment of a closer contacts with clinicians
3. To introduce some laboratory works in the curriculum (e.g. DNA extraction, assessment methods for genotoxins).

## **5.6. LATIN LANGUAGE**

**NAME: lecturer L.Krusta**

**ADDRESS: Department of Humanities, Dzirciema st., Nr.16, Phone: 2409168**

### **1. INTRODUCTION**

The Latin language course is for 1 term. The course acquaints with clinical terms relevant to dentistry. Later these terms are used in teaching clinical subjects.

### **2. PRIMARY AIMS**

To establish the usage of Latin and Greek medical terms related to dentistry.

### **3. MAIN OBJECTIVES**

1. Reading and translation of Latin and Greek medical terms.
2. Correct formation and usage of anatomical and clinical terms.
3. Prescription writing in full and contracted forms.
4. Writing and translation of clinical diagnoses.

### **4. HOURS IN THE CURRICULUM**

72 hours over 18 weeks.

### **5. METHODS OF LEARNING/ TEACHING**

Each student attends two weekly classes and is expected to write a test for evaluation of proficiency and skills after covering a definite number of themes. In total there are 4 tests.

During practical classes students do different kind of exercises both orally and in writing. They form terms and discuss them, explain their meaning. After acquiring termino elements students are required to be able to explain any term both anatomical and clinical.

## **6. ASSESSMENT METHODS**

At the very end of the course students have a final test. During the term they have 4 tests. The tests are in writing. Each exercise is evaluated separately and then the total number of points is given. The worst exercises must be done again. The tests allow students to show their knowledge acquired during practical classes. Before every test students have repetition of the material covered in the classes.

## **7. STRENGTHS**

The curriculum time and teaching resources are quite sufficient to support the course of Latin medical terminology delivered in practical classes which is felt to be the most appropriate method of teaching the subject. The subject has links with other subject areas and is reinforced in other areas of the curriculum, particularly in clinical teaching.

## **8. WEAKNESSES**

Although there is sufficient time within the curriculum to provide the course, but its concentration into two weekly classes during one term does not contribute to deeper acquisition of the subject. Teaching of Latin terminology should continue throughout the first year.

## **9. INNOVATIONS AND BEST PRACTICES**

1. Improved continuity and coherence to the course resulting from the appointment of appropriate teaching staff.
2. Improvement in students' ability to analyze and explain medical terms.
3. Introduction of new teaching aids.

## **10. PLANS FOR FUTURE CHANGES**

In the current concentrated time frame it is planned that the subject will be introduced in more appropriate degrees which will involve opportunity for students' self-directed learning.

## **5.7. BIOMATERIALS**

**NAME: Docent Imants Kalnins**

**ADDRESS: Dzirciema street 16, Riga, Latvia LV - 1007, ph. 2 409 171**

### **1. INTRODUCTION**

The course of Biomaterials is taught at Department of Physics in Latvian Medical Academy for 1<sup>st</sup> grade students. Connected with this course is course of physics and professional study programs.

### **2. PRIMARY AIMS**

The course aims to give the student knowledge of physical characteristics of biomaterials. It gives also practical abilities to proof new materials, which are used in practice and scientific work. The aim is also to give students acquaintance and abilities in scientific work, which are necessary for study of other courses and in practical work.

### **3. MAIN OBJECTIVES**

By the end of the course student should have:

Basic knowledge of structure and physical properties of biomaterials.

An understanding of relationship between structure and function for the major categories of biomaterials.

An understanding how change physical properties of these materials in different environmental conditions.

Developed an ability of using investigation methods of physical properties of biomaterials.

Knowledge of basic principles of creation of mechanical constructions.

### **4. HOURS IN THE CURRICULUM**

The course currently involves 17 lecture hours.

### **5. METHODS OF LEARNING/TEACHING**

The primary mode of teaching on the course is the lecture. The lectures aim is to give factual information, taking in account, that there are no adequate books in native language. It is important to give students evaluation of textbook concepts and provide a personal view of a topic. It is very important in biomaterials take in account the very fast development of this subject. There are small group tutorial sessions held regularly throughout the course, in which students are study special problems in the knowledge of biomaterials. They have also opportunities to ask their tutors direct questions about material they haven't understood and related questions.

### **6. ASSESSMENT METHODS**

All aspects of the course are assessed and the pass mark for the year is 70%. During the semester there are one in-course assessment, which are taken in account in the final assessment. The main aim of primary assessment is to get a feedback of student skills and level of understanding. At the end of course there is test. It is made in written form, with random 5 questions for each student. The time is given the opportunity to improve the results in voce viva answers to examining professor.

### **7. STRENGTHS**

The course has a number of strengths to its credit. The biomaterials is taught as a special course for dentistry students and it is first in a sequence of courses devoted to the study and application of biomaterials. The tutorial support during the study time provides individual feedback. Constantly changing study materials are regularly renewed.

### **8. WEAKNESSES**

The main weakness is that the course of biomaterials is offered in the first study year, when students have no practical ability in dentistry. So they have nothing to compare with the gained

theoretical knowledge. Also students have no practice in these methods, they must be adopted during the course.

## **9. INNOVATIONS AND BEST PRACTICES**

Dental students are taught as an independent group.

Small group teaching enables the development of a good report between staff and students.

This course is taught with constant contact with Institute of Dentistry.

The staff members are higher qualified teaching specialists in this area.

## **10. PLANS FOR FUTURE CHANGES**

The course must provide better continuity with the courses taught during the following study years. This course must be more integrated with other courses in curriculum of dentistry. There must be also a good textbook, which correspond to needs in this field.

## **VISITORS' COMMENT**

## **SECTION 6**

### **PRE – CLINICAL SCIENCES**

- 6.1. ANATOMY**
- 6.2. DENTAL ANATOMY**
- 6.3. PHYSIOLOGY**
- 6.4. HISTOLOGY**

**6.1. ANATOMY**  
**6.2. DENTAL ANATOMY**  
**6.3. PHYSIOLOGY**  
**6.4. HISTOLOGY**

**6.1. ANATOMY**

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**1. INTRODUCTION**

The Anatomy Course at Medical Academy of Latvia incorporates human systematic (gross anatomy) which concentrates on development, structure, function, topography, blood supply and innervation of organs. The course takes place throughout the first year of the 5-year course culminating in specified professional examinations at the end of the first semester and at the end of the year. The course has as its Director, the Professor of Anatomy. In addition, there are two other teachers on the course who have higher medical education.

**2. PRIMARY AIMS**

To provide the students with core information relating to the development, structure, topography of the organs according their function to emphasize on head, neck and thoracic regions. The preclinical anatomy course is adapted to the needs of following clinical studies and specialized stomatological subjects.

**3. MAIN OBJECTIVES**

3.1. The students will show detailed knowledge of the gross anatomy, development, structure, blood supply and innervation, and topography of the head, neck and thoracic regions as assessed by answers to oral examinations and by practical “spot” tests.

3.2. The students will show adequate knowledge of the anatomy of the abdomen and pelvis, upper and lower extremities. This is also assessed by answers to oral examinations and by practical “spot” tests.

3.2.1 The students will have knowledge of the principles of the bone development, their structure and chemical composition. Will recognize skeletal bones and their formations

3.2.2. The students will show basic knowledge concerning development of bones of the skull. Will be able to recognize and describe each bones of the skull. The students will have knowledges of the topography of the skull.

3.2.3. The students will know and will be able to recognize joints between bones, will understand the functional meaning of the joints.

3.2.4. The students will know and will be able to recognize the muscles and the groups of the muscles in relation to their development, structure, function, blood supply and innervation.

3.2.5. The students will have knowledge of the development, structure, topography, blood supply and innervation of inner organs of the body.

3.2.6. The students will have knowledge of the structure and functions of the cardiovascular system.

3.2.7. The students will have knowledge of the endocrine system organs.

3.2.8. The students show knowledge concerning development and structure of the central nervous system will know course and innervated regions of the cranial and spinal nerves will know the structure of the vegetative nervous system.

3.2.9. The students will have knowledge of the structure, function, blood supply and innervation of the special sense organs.

#### **4. HOURS IN THE CURRICULUM**

The course currently involves 157 hours of contact teaching time, and 35 lecture hours.

#### **5. METHODS OF LEARNING/TEACHING**

During the year in the teaching in the laboratory, the students work in groups (10-12 persons) with supervision of the tutor where consultation can occur on regular basis. In dissecting room and laboratory the students with tutor and members of staff are required to recognize the anatomical structures on the body. The maps, anatomical models, schematical pictures, atlases and isolated organs are used for studies in the dissection room and laboratory. The students have a possibility to participate in an Anatomy scientific circle where they work on scientific theme. Such students present the results of scientific research at the end of year during the annual Students Scientific Conference of Morphological Sciences.

#### **6. ASSESSMENT METHODS**

100% of the exam mark come from exam assessments. The oral answer count 75% of the marks and the viva 25%.The overall pass mark is 50%.

#### **7. STRENGTHS**

1. An anatomy course is delivered by anatomies that have higher medical education.
2. Staffs who have written methodological recommendations and study guide in anatomy specially for the dental students.
3. In the laboratory, the students work in small groups with supervision of the tutor where consultation can occur on regular basis and is a good cooperation between the tutor and the students.
4. For the controlling of the students' knowledges after the studies of each system, students have to discuss material with tutor (colloquium) where tutor is conducted to ensure that students understand material and show the knowledge of the anatomical system studied.
5. A possibility to participate in an Anatomy scientific circle to work on scientific theme (about 30% of students work in the Anatomy scientific circle).
6. A possibility to study in the Anatomy museum of Anatomy Department where the students get basic knowledge concerning embryogenesis and the principles, anomalies, and variations of the organogenesis.

#### **8. WEAKNESSES**

Legal problems with the body material for the dissection room.

There is no specialized book in Anatomy for the dental students in the Latvian language.



## **9. INNOVATIONS AND BEST PRACTICES**

- The regular coordination of contents and actualities of preclinical anatomy course with Dean of Stomatology Faculty in accordance with changes in Study program for Dental students.
- Members of staff have written methodological recommendations and study guide in anatomy specially for the dental students.

## **10. PLANS FOR FUTURE CHANGES**

1. To introduce a project work during the year and independent of tuition. The project will count for 10 % of the exam mark.
2. To write a book in Anatomy for the Medicine Faculty students in the Latvian language, which will be, used also for the Dental students studies.
3. To get plastinized body for the work in the laboratory.
4. To provide a short dissection course to all the dental students.
5. To introduce the work in computer class as a part of tutorials in anatomy.

## **6.2. DENTAL ANATOMY**

**NAME: Docent J. Lasovskis**

**ADDRESS: 20. Dzirciema str., Riga, Latvia, LV – 1007, Ph. 2 451814**

### **1. INTRODUCTION**

This integrated course covering the essential topics in studies of teeth structure, structure of jawbone and metabolism of periodontium is held in the II semester of the first year. It is beginning of students training in practical work in dentistry by the wax and plastic modeling of several teeth.

### **2. PRIMARY AIMS**

To give the dental students an understanding of several teeth characteristic signs, that is necessary for recognition. Students get acquainted with practical modeling, testing their manual skill of using instruments.

### **3. MAIN OBJECTIVES**

1. To give dental students an understanding of peculiarities of several teeth from the roots till coronal surfaces.
2. To provide dental students with understanding how several shapes of corona dentist lead to combination as occlusion and by the way organizes the view of occlusal restoration.
3. Train students in using wax and heat of alcohol lamps to make necessary correction of artificially damaged structure of their own occlusion (by the models of their own mouth).

#### **4. HOURS IN THE CURRICULUM**

Lectures 17 hours  
Practical classes 388 hours

#### **5. METHODS OF LEARNING/ TEACHING**

A structured lecture course with appropriate practical classes predominately based on self-work, with practical modeling a self-assessment in recognition of several extracted teeth. Modeling of several groups of teeth occlusion on the base of their own occlusion models.

#### **6. ASSESSMENT METHODS**

- 1) Pencil painting several tooth outlooks in 3 projections.
- 2) Presentation of their own modeling results and recognition of several teeth.

#### **7. STRENGTHS**

Course thought by experienced practicing the disciplines of conservative dentistry and operating dentistry. Integration of real modeling and painting of teeth structures.

#### **8. WEAKNESSES**

Lack of special training materials and models. Not all topics covered with satisfactory materials.

#### **9. INNOVATION AND BEST PRACTICES**

Recent introduction in some special needs from prosthetic department and conservative dentistry department as explanation of special preparation of teeth for filling and restoration with crowns etc.

#### **10. PLANS FOR FUTURE CHANGES**

In the new curriculum it is planned to integrate/to stress the attention to needs of conservative and prosthetic departments. It is planned to have better back connection with practitioners.

#### **6.3. PHYSIOLOGY**

**NAMES: Prof. L.Aberberga-Augškalne, Docent L. Blumfelds**

**ADDRESS: 16 Dzirciema str., Riga, Latvia, LV – 1007, Ph. 2 409173**

#### **1. INTRODUCTION**

The whole of the Physiology course is taught at the Department of Physiology in Medical Academy of Latvia, just near the Dental Institute. Physiology represents the basic course. Students enter the course at the second year, having successfully completed the first year.

## **2. PRIMARY AIMS**

The course primary aims to give the student an understanding and knowledge about the functions of healthy human organs, systems and organism as a whole necessary for dentists. The main effort for physiological studies has been on mechanisms, thus the question - how, the consequences of the effect and the reason. Some emphasis is given to conditions to clinical relevance: physiological methods, principles and facts used in clinical medicine with diagnostic or therapeutic values.

## **3. MAIN OBJECTIVES**

At the end of the course the student should have related to general physiology and systems:

1. define the physiological terms and expressions
2. explain the theory and line of experimentation by which it has been possible to achieve the knowledge of the function or part of the function of an organ and organisms
3. give and apply the drawings, equations, formulae which explain the functions and describe the equations of physiological process
4. recognize and analyze physiological problems using physiological curves, data tables
5. decide which conclusions reached in the laboratory could make the basis not only for understanding the physiological problems but may also be the reason for medical problems
6. give an account of the principles, applications and sources of error in the apparatus and methods used in the student's exercises
7. special emphasis is put on processes in oral cavity. Surface areas of different regions of the mouth. Dentin sensivity. Oral mucosa functions and blood supply. Functions of saliva, methods of investigation. Diet intake and chewing. Mastication muscles and joints. Swallowing.

## **4. HOURS IN THE CURRICULUM**

The course involves 53 lectures, 94 hours of Lab, practical work and 6 tutorials, giving 153 hours of contact teaching time.

## **5. METHODS OF LEARNING/TEACHING**

The lecture course is the primary mode of teaching, and is supported by Lab Work. Lab Work performance is assessed on a weekly basis in terms of theoretical knowledge, conduction and documentation of the experiment or investigation. The theoretical knowledge can be assessed by different methods ( written text, oral examination, etc.) and student has to reproduce and adequately use the knowledge for solving situation problems; has to be able to give logical argumentation using theories and conceptions. At the end of the courses, student received the Year's mark. This mark is then credited as one of the components to the Final Exam. Final exam, given at the end of the course is computed from the Lab Work Exam (assessed practical skills) and Theoretical oral Exam. Students also have a choice of independent scientific investigation and in the case of successes it gives additional credit.

## **6. STRENGTHS**

The lecture and practical course is given specially and only for the dentistry students, which makes the course flexible and more relevant to dentistry. Therefore within precise timetable of the theory supplemented by practice, Department staff and equipment availability we think that we have a good course and relevant for dentists. The course has high level of tutorial

support with experienced tutors and the special Objective and Manual for dentists, handed to the students.

## **7. WEAKNESSES**

Lectures are dominantly informative because we have lack of a new good Text Books in Physiology in Latvian, applied for dentists and so less time is given for the solving and explaining the problems. There are no major re-investments in modern equipment.

## **8. INNOVATIONS AND BEST PRACTICES**

1. There are regular, weekly feedback from students.
2. Lecture themes and Lab Work are annually renewed and a new one implemented according to Department possibilities.

## **9. PLANS FOR FUTURE CHANGES**

As part of the development of the curriculum, Physiology is now integrated with Anatomy, Histology and Biochemistry and in future the vertical integration with Clinical Sciences should be applied.

## **6.4. HISTOLOGY**

**NAMES: Professor A. Dalmane, Dr O. Koroleova**

**ADDRESS: Anatomicum, Kronvalda, 9, Riga, LV1010, Ph. 7321811**

### **1. INTRODUCTION**

The Histology and Human Embryology course for dentists at Latvian Medical Academy incorporates basic knowledge of general and special cytology, tissues, microscopically organization of organs and their systems in human organism, principles of human embryogenesis. The course concentrates on the embryology and histophysiology of face, mouth cavity, neck, teeth and jaws.

The course takes place throughout the first year of the 5-year Dental Faculty course culminating in specified professional examination at the end of the year. The course has as its Directors, the Professor of Histology and Doctor of Histology who is dental qualified. The preclinical histology course, in common with other preclinical disciplines in the course is a part of the portfolio run by Latvian Medical Academy prior to students conducting their clinical studies at the clinics of the Dental Faculty.

### **2. PRIMARY AIMS**

To provide the students with a sound foundation of histological principles and basic knowledge of human embryology.

To introduce the students to scientific principles, accepting that students are in the early years of training.

The students are emphasized to concentrate on the problems of the normal and abnormal embryonic development or the histophysiology of the dental tissues and their changes during life.

### **3. MAIN OBJECTIVES**

The student will be able to recognize basic histological tissues under the microscope and to interpret the results of investigation.

The student will have an understanding of microscopic organization of organs in different physiological systems in human organism.

The student will show the basic knowledge concerning embryogenesis and the principles of organogenesis with a more detailed understanding of face, tooth, jaws and neck development.

The student will have knowledge of histophysiology of human dentin, enamel, cementum, pulp, periodontum and parodontum as well as human tooth eruption.

The student will show detailed knowledge of the aging processes in dental tissues, regeneration and remodeling capacities.

### **4. HOURS IN THE CURRICULUM**

The course currently involves 175 hours of contact teaching time: 35 hours of timetabled lecture time, 108 hours of timetabled practical work time and 32 hours of timetabled colloquium and seminar time. Consultation time is 20 hours. Student self study time is not limited.

### **5. METHODS OF LEARNING/TEACHING**

Histology is regarded as a visual subject and the teaching wherever possible involves practical experience for the students. Thus, there is a decrease in reliance in lectures and in increase in laboratory work where students are required to study and to draw specimens of different tissues and organs under the light microscope and their schematic representation under the transmissional electron microscope. Written and discussion work is constantly set. The seminars are designed to develop student problem-solving and communication skills. Seminars also provide a forum where aspects of the course can be discussed in a relaxed atmosphere. Selected few student present posters or oral reports at scientific student conference. Consultation with members of staff can occur on a regular basis.

### **6. ASSESSMENT METHODS**

An oral examination at the end of the year includes:

Description of histologic schemes (15%). Diagnosis of three labeled histologic specimens and theoretical discussion about the structures inside of the specimens (35%). Three questions will test student recall of essential facts and principles, their deductive, problem-solving and data assessment skills (50%).

### **7. STRENGTHS**

1. Personal tutor schemes and buddy schemes have been set up to help student settle.
2. Staff who have written textbooks in histology and dental sciences.
3. Good co-operation with dental clinic and science staff at Latvian Medical Academy and Dental Faculty.

### **8. WEAKNESSES**

All weaknesses are recognized in the need to integrate basic science and clinical disciplines throughout the 5-year Dental Faculty course. Weak motivation in students.

## **9. INNOVATIONS AND BEST PRACTICES**

1. Dedicated practical manuals produced by the staff specifically for the dental course.
2. Well versed and established quality of the original collection of the histological and embryological specimens.

## **10. PLANS FOR FUTURE CHANGES**

1. To print the text/atlas in Dental Histology.
2. To plan time for projects in Dental Histology.
3. To co-operate with Dental Pathology Department.

## **VISITOR'S COMMENTS**

## **SECTION 7**

### **PARA – CLINICAL SCIENCES**

- 7.1. GENERAL PATHOLOGY**
- 7.2. CLINICAL PATHOLOGICAL  
PHYSIOLOGY**
- 7.3. MICROBIOLOGY**
- 7.4. ORAL MICROBIOLOGY**
- 7.5. PHARMACOLOGY**

## **7.1. GENERAL PATHOLOGY**

## **7.2. CLINICAL PATHOLOGICAL PHYSIOLOGY**

## **7.3. MICROBIOLOGY**

## **7.4. ORAL MICROBIOLOGY**

## **7.5. PHARMACOLOGY**

### **7.1. GENERAL PATHOLOGY**

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### **1. INTRODUCTION**

The course of General Pathology and Oral Morphology for the students of Stomatological Faculty of the Medical Academy of Latvia/ Riga Stradin's University incorporates subdivision of general pathology and oral pathology, the last subject concentrated on morphology of the oral cavity, jaws and teeth. The general pathology course is included in the study program of the second study year, second (spring) semester. Oral pathology course takes place during the third study year, first (autumn) semester. The full course culminates in specified professional examination. The Course Director is the Professor of pathology, who is experienced both in general surgical pathology and oral pathology.

### **2. PRIMARY AIMS**

1. To offer the basic knowledge in the etiology and pathogenesis of general pathological processes in the level of organs as well as tissues and cells.
2. On the basis of the furnished information and skills to introduce the students with the main morphological processes and diseases concerning the oral cavity, jaws and teeth.

### **3. MAIN OBJECTIVES**

1. To gain an adequate understanding of the basics in pathological processes, their etiology, pathogenesis, and outcomes.
2. To be able to recognize macroscopic changes in pathologically changed tissues and organs.
3. To recognize disease-related changes in morphology within the whole organism, organ systems, organs, tissues and cells and to explain the cause and development of functional disturbances.
4. During the course the students will be introduced with the specific pathomorphology of different diseases involving the oral cavity.
5. The students will develop experience in recognition and evaluation of gross and microscopic characteristics of pathological processes involving the soft and bony tissue of oral cavity and jaws.



6. To stimulate the ability to explain the interconnection between general pathological processes and diseases as well as specific nosologic entities involving the oral cavity; to underline the practical importance of biopsy and surgical specimens in diagnostics.

#### **4. HOURS IN THE CURRICULUM**

The General Pathology subdivision of the course involves 51 academic hour of laboratory/practical training and 17 academic lecture hours. The Oral Morphology subdivision includes 32 academic hours of lecture time and 32 academic hours of laboratory/practical work.

#### **5. METHODS OF LEARNING/ TEACHING**

General pathology and oral morphology are regarded as visual subjects and the teaching wherever possible involves practical experience by the students. The course is based on theoretical knowledge provided at the lectures with following practice in laboratory and autopsy room. The students work in groups discussing specific subjects with emphasis on the relevant theory and its clinical implications in close connection with the analysis of microspecimens. The small size of study groups during the practical training guarantee good contact with the teacher in the theoretical discussion showing up the gross and microscopic peculiarities.

#### **6. ASSESSMENT METHODS**

During every laboratory training the knowledge of students about the actual themes as shown during discussion or testing in written are evaluated according to 10-degree system. The examination about each subdivision includes practical test with microspecimens and gross specimens. This is followed by oral theoretical testing using standard set of questions. The subdivision of general pathology culminates in examination, but subdivision of oral pathology – in differentiated testing.

#### **7. STRENGTHS**

1. Staffs who have written major training appliances in general pathology and oral morphology.
2. Rich collection of microscopical specimens and macropreparations about different human diseases and oral pathology for practical tuition.
3. Series of slides, placards and schemes made by lecturers.
4. The last discoveries in basic science, general pathology and oral morphology are instantly implemented in the study course.
5. The collaboration with clinical dentists ensures the exchange of information about the news in stomatology.

#### **8. WEAKNESSES**

1. Difficulties in the integration of the newest findings in the field of basic science, general pathology and oral morphology in the training process.
2. The collection of microspecimens necessitates further expansion in the field of jaw, teeth and salivary gland pathology.

## 9. INNOVATION AND BEST PRACTICES

1. New training appliances for dental students in general pathology and oral pathology in 2000.
2. Integrated teaching of the oral morphology course across the clinical divide.
3. Improvement of student questionnaires.
4. Project in oral morphology for third year students.

## 10. PLANS FOR FUTURE CHANGES

All curriculum is accepted by the Dean of Dentistry.

## 7.2. CLINICAL PATHOLOGICAL PHYSIOLOGY

**NAME: Prof. J. Leja**

**ADDRESS: 16 Dzirciema str., Riga, LV-1007. Ph.: 7613657, 7611790.**

### 1. INTRODUCTION

The Clinical Pathological Physiology as base of all clinical disciplines is taught at the University hospital of P.Stradin, which is located about 1 mile from the Dental School. Students enter the course at winter semester of 2<sup>nd</sup> year and are examined in winter session of 3<sup>rd</sup> year.

### 2. PRIMARY AIMS

The primary aims are:

1. Furnishing necessary for all clinical disciplines basic knowledge and teaching the students clinical thinking;
2. Providing the scientific basis for understanding the mechanisms of disease;
3. Facilitating the students understanding of oral pathology, medicine and surgery.

### 3. MAIN OBJECTIVES

At the end of the course of Clinical Pathological Physiology the student should have a knowledge and ability to be orientated in:

1. General nosology, typical pathological processes, general etiology and pathogenesis, doctrine of illness,
2. Disturbances of the cell functions, blood circulation, hypoxia, thermoregulation; fever,
3. Inflammation, shock, terminal states and death, reanimatology, reanimation,
4. Stress, constitutions, diathesis,
5. Immunopathology, immunodeficiency, allergy, autoimmune diseases, transplantation of tissue, GVHR,
6. Pathological growth of tissue, tumors,
7. Disturbances of water and electrolyte exchange, oedemas, acid-base equilibrium,
8. Disturbances in metabolism of proteins, carbohydrates, lipids, pigments and minerals; *diabetes mellitus*,
9. Disturbances in functions and main illnesses of the systems of organs (kidneys, liver, pancreas, gastrointestinal tract, blood, hemocoagulation, cardiovascular, respiratory, endocrine, nervous),

10. Disturbances of digestion in oral cavity; hyper- and hyposalivation; focuses of chronic infection,
11. Pathophysiology of dental and periodontal diseases; caries,
12. Pathophysiology of the diseases of chewing muscles, jaw articulations, lips, oral mucosa and salivary glands.

#### **4. HOURS IN THE CURRICULUM**

The course currently involves 50 hours of lectures and 49 - of practical work.

#### **5. METHODS OF LEARNING/TEACHING**

The practical course and creative (personal) work of every student support the lecture course as the primary mode of teaching.

#### **6. ASSESSMENT METHODS**

Computer-class is used for the every-day control of student`s knowledge. Individual examination - at the end of the course.

#### **7. STRENGTHS**

Comparison of the our course with courses of the Oxford and Sienna`s Universities shows that our course is of full value. Original elaboration in Clinical Pathological Physiology and Individual schemes for every lecture are used regularly.

#### **8. WEAKNESSES**

1. Deficiency of teaching time for full realization of the course,
2. Special part of the course is introduced too early.

#### **9. INNOVATIONS AND BEST PRACTICES**

1. Study of the Clinical Pathological Physiology,
2. Problem - based system of education,
3. Individual schemes for every lecture,
4. Usage of every-day computer control of knowledge,
5. Creative (personal) works of every student.

#### **10. PLANS FOR FUTURE CHANGES**

1. Further development of integration with topics of other disciplines,
2. Increasing investments for development of teaching classes.

## 7.3. MICROBIOLOGY

**NAMES: Docent Valentina Kuznecova, asoc.prof.Juta Kroica.**

**ADDRESS: Dpt.of Microbiology, Medical Academy of Latvia, Dzirciema str. 16, Riga, LV1007, Latvia, FAX: +371-7-288567, PHONE: +371-2-409180**

### 1. INTRODUCTION

Goal of course is to give to students knowledge about microorganisms and viruses; their influence on human body both in standard and in pathology, especially in mouth cavity and on face, about process of infection, infectious diseases, preventive system of body, immunity, about the diagnostic methods of pathogenic microbes and viruses; about specific prophylactics of infectious diseases and therapy.

### 2. PRIMARY AIMS

1. to examine the features of microorganisms and viruses, distribution in environment and influence on macroorganism;
2. to orient in the role of normal microflora, especially in mouth cavity, and the methods of their determination;
3. to orient in features of pathogenic microorganisms and viruses and their role in process of infection;
4. to know the principles of microbiological and virusological diagnostics of infectious diseases;
5. to orient in unspecified and specific mechanisms in immunology;
6. To master the basis of prophylactics in contact with stomatologic patients being infected with hepatitis B, AIDS, syphilis and other diseases.

### 3. MAIN OBJECTIVES

General Microbiology and Virology.

For Stomatologists it is necessary to know the morphology of typical groups of bacteria how to stain and examine the preparations on purpose to diagnose pathogenic agents in patients material: in plaque, from gingival pocket and oral mucosa. Among stomatologic diseases virus infections are of great importance. That's why the specialists must have basic knowledge about the structure of viruses, their features, methods of cultivation and interaction of viruses with cell.

The knowledge about metabolism of bacteria, fermentative activity and skills to cultivate microorganisms in artificial medium, information about cultivation methods of anaerobes allow specialists - stomatologists to isolate pure culture of bacteria and to identify it by cultural and biochemical features.

Knowledge about the normal microflora of human body, especially oral cavity microflora, helps the stomatologists to diagnosticate qualitative changes of microbes in the case of pathologic process. For stomatologists it is important to know about the factors having influence on microorganisms: physical factors (temperature, pressure), chemical factors (antibiotic substances). The principles of aseptic and methods of sterilization also must be mastered.

Infection and Immunity.

Stomatologists are to know the basis and main principles of infection and immunity, unspecified protection mechanisms of the human body and specific immune system. It is necessary to know about immune response mechanism in healthy organism and in pathologic state: autoimmune diseases, allergic reactions, in immunodeficiency cases. It is necessary to interpret the results of serologic reactions and to know the practical use of biologic preparations (vaccines, serums).

#### Special Microbiology.

For Stomatologists it is important to know about aetiology and pathogenesis of the often-met infectious diseases. They must correctly take material from patient and transport it to the laboratory; must know microbiological diagnostics, basic principles of specific prophylactics and treatment.

#### Special Virology.

Stomatologists are to know diseases localized in the mouth cavity caused by viruses, their diagnostics, prophylactics, treatment and epidemiology.

### **4. HOURS IN THE CURRICULUM**

Lectures - 36

Practical classes - 70

### **5. METHODS OF LEARNING/TEACHING**

Periodic class tests. These vary in format from multiple choice through short answer questions to essay questions.

### **6. ASSESSMENT METHODS**

The examination in Microbiology is held at the end of the second academic year. The examination covers general microbiology, immunology, special microbiology and virology. The written examination includes all above mentioned parts.

### **7. STRENGTHS**

1. Well-integrated course with enthusiastic teachers whom have interest in the process of education.
2. Students with interests perform laboratory works. They use the up-to-date methods of diagnostic.
3. Students master the skills for work in laboratory, for work with scientific literature by putting into shape scientific works, papers and by presenting them to others students in auditorium.
4. Small group teaching.

### **8. WEAKNESSES**

It is desirable to have better equipment for laboratories; then each student could do practical work independently.

### **9. INNOVATION AND BEST PRACTICES**

In the library to increase the number of books in Microbiology for students from the Faculty of Stomatology as well as to obtain Atlas in Microbiology.

To find opportunity to purchase video equipment; that could allow to demonstrate microscopic preparations on the screen for students.

## **10. PLANS FOR FUTURE CHANGES**

To revise and make correction in the course of lectures.

## **7.4. ORAL MICROBIOLOGY**

**NAMES: Dr.Dagnija Rostoka, asoc.prof.Juta Kroica.**

**ADDRESS: Dpt.of Microbiology, Medical Academy of Latvia, Dzirciema str. 16, Riga, LV1007, Latvia, FAX: +371-7-288567, PHONE: +371-2-409180**

### **1. INTRODUCTION**

The course of Oral Microbiology for the 3<sup>rd</sup> year students at the Faculty of Stomatology includes the basic knowledge about ecology of oral cavity, oral microorganisms: bacteria, fungi, parasites and aetiology of main oral cavity diseases. The course of Oral Microbiology is logic continuation or specialization after the basic knowledge mastered in the courses of General Microbiology and General Pathology.

### **2. PRIMARY AIMS**

To give students from the Faculty of Stomatology the knowledge about oral cavity as complicated ecological system where microorganisms are one of the main constituents.

### **3. MAIN OBJECTIVES**

1. to give an understanding about the qualitative and quantitative composition of oral microflora in common and different oral pathologic process cases,
2. to acquaint with microorganisms and immunology mechanism in pathogenesis of caries, gingivitis, periodontitis etc. oral diseases,
3. to orient in the principles of prophylactics and therapy in diseases caused by oral cavity microorganisms and viruses,
4. to master the methods of microbiological diagnostics in practical dentistry,
5. to acquaint with the principles and standards of sterilization and asepsis in practical dentistry.

### **4. HOURS IN THE CURRICULUM**

Lectures - 16

Practical classes - 32

### **5. METHODS OF LEARNING / TEACHING**

The subjects of lectures are closely connected with activities in practical classes. The acquired knowledge is controlled during the practical classes according to especially worked out

colloquy questions. Lecture notes are summarized in Methodical Recommendations and are available at the library.

## **6. ASSESSMENT METHODS**

The course of Oral Microbiology includes three colloquies with special colloquy questions. The answers are prepared in the written form with oral presentation in the practical part of colloquy. The course of Oral Microbiology is completed with the final examination.

## **7. STRENGTHS**

The course of Oral Microbiology together with practical classes is closely integrated in the course of General Microbiology.

## **8. WEAKNESSES**

The classes in Oral Microbiology are not conjoined with the knowledge and practical skills mastered during the courses in Oral Pathology and General Pathology. Due to great technical limits the knowledge in Oral Microbiology mastered during the practical classes can't be completely used in practical work in clinics.

## **9. INNOVATION AND BEST PRACTICES**

## **10. PLANS FOR FUTURE CHANGES**

The new methodological recommendations in Oral Microbiology in three parts are planed.

## **7.5. PHARMACOLOGY**

**NAME: Dr. habil. med. J. BALTKAJS**

**ADDRESS: 13 Pilsonu str., Riga, Latvia, LV – 1002, Ph. 7 611855**

### **1. INTRODUCTION**

Teaching in Pharmacology is co-ordinate with principles of dentistry education in the Institute of Stomatology (special Department of Oral and Maxillofacial Surgery, Department of Conservative Dentistry, Department of Oral Pathology, Department of Prosthodontics, Department of Orthodontics).

### **2. PRIMARY AIMS**

1. To provide a core of pharmacological knowledge which will aid students to develop safe and effective drug use in dental practice.
2. To provide a firm scientific base on which dental students can found and develop their practice of therapeutics.
3. To provide knowledge of pharmacotherapy of medical emergencies in the dental office.

### **3. MAIN OBJECTIVES**

On completion of the formal teaching and prescribed reading, students will be able to:

1. describe, in detail, the mechanisms of action, therapeutic uses and side effects of the major groups of drugs used in dentistry
2. outline the pharmacology of the major groups of therapeutic drugs
3. critically evaluate the implications of pre-existing drug therapies when planning dental treatment
4. describe the role of drugs in the precipitation and treatment of medical emergencies during dental treatment
5. correctly write prescriptions for dental medicines and materials describe the legal responsibilities associated with prescribing

### **4. HOURS IN CURRICULUM**

Lectures	53 hours
Tutorial	2 hours
Practical class	3 hours

### **5. METHOD OF LEARNING/TEACHING**

The course presents material by means of a sequence of lectures backed up with reading lists that give details of appropriate pages or chapters in recommended textbooks. There is a formative class examination and 6 tutorial sessions to provide support and feedback on examination technique.

### **6. ASSESSMENT METHODS**

There is an examination in basic and clinical pharmacology. There are three steps of knowledge control.

1. Every class written examination in theory and prescription.
2. Intermediate written control (6 times per year).
3. Conclusive examination consisting of four theory questions and five prescriptions.

### **7. STRENGTHS**

The course in clinical pharmacology is provided in fourth year of study when students are familiar with clinical practice.

### **8. WEAKNESSES**

1. Pharmacology teaching starts in year 2, when students have low level of knowledge in basic medical subjects.
2. The 1½ year interval between basic and clinical pharmacology courses.

### **9. INNOVATIONS AND BEST PRACTICES**

Two consecutive courses provide students with the information concepts and working practices necessary for dental practice.



## **10.PLANS FOR FUTURE CHANGES**

It is planned to include pharmacology as component of the Objective Structured Clinical Examination (OSCE) in conclusive examination in dentistry.

## **VISITOR'S COMMENTS**

## **SECTION 8**

### **HUMAN DISEASES**

- 8.1. GENERAL SURGERY**
- 8.2. DERMATOVENEROLOGY**
- 8.3. INFECTIOUS DISEASES**
- 8.4. PEDIATRICS**
- 8.5. PSYCHIATRY AND NARCOLOGY**
- 8.6. INTERNAL DISEASES**  
**EMERGENCY MEDICINE**
- 8.7. OTORHINOLARINGOLOGY**
- 8.8. DISASTER MEDICINE**
- 8.9. NEUROLOGY AND NEUROSURGERY**
- 8.10. PSYCHOSOMATIC MEDICINE AND  
PSYCHOTHERAPY**

- 8.1. GENERAL SURGERY**
- 8.2. DERMATOVENEROLOGY**
- 8.3. INFECTIOUS DISEASES**
- 8.4. PEDIATRICS**
- 8.5. PSYCHIATRY AND NARCOLOGY**
- 8.6. INTERNAL DISEASES**  
**EMERGENCY MEDICINE**
- 8.7. OTORHINOLARINGOLOGY**
- 8.8. DISASTER MEDICINE**
- 8.9. NEUROLOGY AND NEUROSURGERY**
- 8.10. PSYCHOSOMATIC MEDICINE AND PSYCHOTHERAPY**

## **8.1. GENERAL SURGERY**

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### **1. INTRODUCTION**

The general surgery as a component of the dentistry student curriculum takes place in the second year of their study. The surgical course is aimed to give an insight of surgical diseases and interventions and to give a relevant knowledge in recognition and first aid in acute surgical situations for general dental practitioner. The coverage of surgery includes asepsis and antisepsis principles, bleeding control and transfusiology basics, wound healing and trauma, open and closed injuries, abdominal cavity acute surgical diseases and acute situations in other fields of surgery. The course consists of a series of lectures and group teaching by visits to the surgical departments, operating theatre and ICU unit.

### **2. PRIMARY AIMS**

The primary aims are to learn the basics of surgery, problem handling that a general dental practitioner may face in this own practice.

### **3. MAIN OBJECTIVES**

1. To act according to the principles of asepsis and antisepsis.
3. To apply temporary and permanent bleeding control methods.
4. To understand principles and consequences of blood products transfusion.
5. To know injury and wound treatment principles.
6. To understand the impact and consequences of major surgical operation.
7. To recognize most common acute surgical conditions.
8. To be conversant with commonly used surgical terminology.

#### **4. HOURS IN THE CURRICULUM**

18 hours of lectures

18 x 3 hours of clinical learning: asepsis & antisepsis

#### **5. METHODS OF LEARNING / TEACHING**

The lecture program is designed according to the objectives of the course. For clinical learning students are sent departments in small groups. A variety of surgical diseases and treatment methods are demonstrated. The emphasis are the most common acute surgical situations.

#### **6. ASSESSMENT METHODS**

The assessments of the students take place in two colloquia following the learning of relevant common clinical diseases and conditions. Written test questions are answered, including a part of MCQ.

#### **7. STRENGTHS**

The course is designed and provided by an experienced team and is updated to include the new approaches and technology both in surgical theory and in clinical practice.

#### **8. WEAKNESSES**

Teachers and students occasionally do not follow aims and objectives of the course. The clinical learning attendance occasionally is not perfect, with student transportation between different hospitals as a main problem. The teachers are busy practicing clinicians with sometimes other demands their time. The allocated material supply for course does not allow supplying students with always-appropriate handouts. The general other field knowledge of second year dentistry students seem to be inadequate to have an extensive general surgery course, more appropriate this course may be in third study year.

#### **9. INNOVATIONS AND BEST PRACTICE**

The course is reviewed annually and takes into account comments from the students.

#### **10. PLANS FOR FUTURE CHANGE**

An introduction of an objective structured examination finishing the course may improve the motivation of students learning teachers providing the course. A major review of the whole general surgery course for dentistry students is discussed and will take place for the next academic year.

### **8.2. DERMATOVENEROLOGY**

**NAME: Professor A. RUBINS**

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**E-mail: arubins@apollo.lv**

## **1. INTRODUCTION**

Dermatovenerology is taught in the second year of the Dental Course as part of a program that also includes clinical pharmacology (therapeutics). Students must pass the examination in order to continue with their studies. The students must be prior knowledges on anatomy, histology, physiology, biochemistry, and microbiology.

## **2. PRIMARY AIMS**

1. To give dental students a grounding in the common skin and venereal diseases that affect the population with particular emphasis on those disorders that impinge of the practice of dentistry.
2. To give Dental Students of the breath of medical knowledge and to facilitate self-directed learning in those aspects that might interest students throughout their professional lives.

## **3. MAIN OBJECTIVES**

1. To understand the importance of taking and recording a medical history in-patients with dental problems. To appreciate those symptoms that warrant referral to a medical practitioner and elements of the physical examination that may point to specific a medical diagnosis.
2. To appreciate the clinical presentation of patients with skin diseases, including reactive processes and injuries in the mouth. To have so understand of the medical investigation and treatment of theses disorders.
3. To appreciate clinical presentation development disorders. To have so are understanding of the medical investigation and treatment of these disorders.
4. To understand the importance of benign, premalignant and malignant lesions in the mouth including the prevention and treatment options.
5. To understand the clinical presentation, investigation and treatment of patients with oral bacterial, viral and fungal infections. To have a working knowledge of the treatment of systemic and local medical options of these disorders.
6. To appreciate the common vesiculo erosive diseases that affect patients including pemphigus, erythema multiforme and lichen planus.
7. To understand the types of disorders of pigmentation that way affect patients attending a dental clinic and the precaution as required when managing them.
8. To he aware of the common oral manifestations of systemic diseases that away cause disability including diabetes auelitus etc., to understand how these way present on dental practice and he aware of the signs these disorders.
9. To recognise common genodermatoses including investigative and treatment options.
10. To understand the presentation investigation and treatment salivary gland diseases.
11. To have a broad knowledge of how sexually transmitted disorders, including HIV my present to the dentist and the precautions required when dealing with such cases.

## **4. HOURS IN THE CURRICULUM**

The course consists of 17 hours of lectures, 51 hours of bedside clinical teachings.

## **5. METHOD OF LEARNING/ TEACHING**

The curriculum is divided into 11 topics and each is covered in a student-handout that contains all the core information. Each week, students are asked to read the relevant portions of the course booklet before attending a 2-hour session where the material for 2 topics is taught. These sessions take place in a Lecture Hall as group teaching for the entire year. The core information is covered but, since it is assumed that students will have reviewed the content prior the session, time is spent illustrating important points with clinical material, e.g. slides case histories.

In the spring term, students are divided into groups of 7-10 and attend a clinical center of skin and STD on 51 of bed-side clinical teaching (clinical lesions). During these lessons, the previous term's information is illustrated by bedside teaching with patients. Students are encouraged to take medical histories and perform relevant medical examinations. Opportunities also exist witness procedures such as biopsies.

## **6. ASSESMENT METHODS**

Students are formally examined at the end of the spring term. Students answer a written paper, a multiple-choice paper. The examination is overseen by an examine in department of Dermatovenereology of AML/RSU.

## **7. STRENGTHS**

The course has well-defined aims and the core materials is clearly presented to students in a course booklet. Students enjoy the course and the chance to study areas of health outside dentistry. The majority of the course is planned and delivered by a single member of the Department Dermatovenereology and hence can be directly tailored to the needs of dental students with rapid implementation of any changes that are required.

## **8. WEAKNESSES**

The course relies on lectures and clinical teaching to relatively large groups of students. This is primarily related to time constraints within the curriculum and manpower difficulties (with increasing clinical workload of hospitals and teachers). The course-booklet is now 5 years old and needs updating.

## **9. INNOVATIONS AND BEST PRACTICES**

1. Core materials is clearly presented to students in a course booklet
2. Course is planned and delivered in close association with needs of Dental Students
3. Course material illustrated with medical cases relevant to dentistry
4. Bedside clinical teaching flexible and geared to needs of individual groups of students

## **10. PLANS FOR FUTURE CHANGES**

1. Course booklet will be thoroughly revised and updated next year.
2. Greater integration with other specialties.
3. Consideration to be given to replacing course with 1-week medicine block.

## 8.3. INFECTIOUS DISEASES

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### 1. INTRODUCTION

The study program in infectious diseases was developed due to the recognition of this disease group having the leading role in the internal medicine both in quantitative and in qualitative aspect. Being aware of the remarkably rapid increase in the incidence of blood-borne diseases, the infectious disease course was planned immediately after the adopting of the necessary basic specialties – biology and microbiology, to make students sooner acknowledge their role in the prevention of infectious diseases and acquire practical skills in avoiding themselves and (others) the patients from infection.

### 2. PRIMARY AIMS

To provide students with knowledge related to clinical features of the most important infectious diseases and their transmission routes in order to avoid the infection, to restrict the infectious spreading among the patients.

### 3. MAIN OBJECTIVES

1. Role of infectious diseases in the practical medicine and stomatology.
2. The main signs of infectious diseases.
3. The basis of the infectious diseases diagnostics.
4. The main principles of the treatment of patients with infectious diseases.
5. Epidemiology of infectious diseases (source of infection, transmission factors, susceptible organism).
6. Antiepidemic measures, directed to infectious source, transmission factor, susceptible organism; their characterization.
7. Characteristics, epidemiology and prophylaxis of viral hepatitis (B, C, D, E, GB, TT).
8. HIV infection, AIDS opportunistic infections.
9. Changes in the oral cavity and fauces in patients with infectious diseases, their differential diagnostics.

### 4. HOURS IN THE CURRICULUM

The course consists of 10 lectures hours, 30 hours of bedside clinical teaching and 2 hours of revision.

### 5. METHODS OF LEARNING/ TEACHING

Lectures occur for all students jointly, and each lecture lasts 45' x 2, the final 5-10' being reserved for questions and answers. The most relevant sections of the lecture material are accompanied with visual materials simultaneously with the lecturer speech. The material

surveyed in one lecture is related to and introduces the subject of the next lecture so that the student gets a cohesive material providing comprehensive insight into the theory of infectious diseases, which is affirmed by the technical material available during the practicals. During the lectures the technical scientific achievements in the area of diagnostics are weighed and the directions for the solution in the field of infectious diseases are marked.

Practical give opportunity to take part in the process of laboratory diagnostics, for instance, PCR, examining of causative agents in microscopes and so on; as well as the possibility to come to the diagnosis under the guidance of the lecturer after being in contact with and examining patients.

## **6. ASSESSMENT METHODS**

Multi-choice test method is used in the final examination.

There may occur a small test on theme given in advance in the beginning of each practical.

## **7. STRENGTHS**

The material allows the students recognize that the stomatology is one of those medical disciplines that have a close practical link with the outspread of infectious diseases, restriction and recognition. This extends their understanding of public health on the whole and creates awareness of their significance in health care system.

## **8. WEAKNESSES**

The course needs to be enlarged at least for 4 lecture hours and 6-8 practical hours because it would afford deeper penetration into the pathogenesis of the health process and diseases and lessen the notion of stomatology, mouth cavity diseases being as if cut off from the patient.

## **9. INNOVATIONS AND BEST PRACTICES**

Core material is clearly presented to students during the lectures and in class subjects. Course is planned and delivered in close association with needs of Dental Students. Course material illustrated with medical cases relevant to dentistry. Bedside clinical teaching flexible and geared to needs of individual groups of students.

## **10. PLANS FOR FUTURE CHANGES**

Course booklet will be thoroughly revised and updated next year. Greater integration with laboratory facilities in diagnostics. The course in blood-borne diseases will be deepened. Number of lectures in teaching will be enlarged for 15%.

### **8.4. PEDIATRICS**

**NAMES: associated professor I. Ranka, professor D. Gardovska**

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## **1. INTRODUCTION**

Pediatrics is taught in the 3<sup>rd</sup> year of the Stomatologists. The course ensures students with understanding of main standards of development and health problems in children, mainly with situation interfaces with stomatologist practice, and is designed to exceed the requirements.

## **2. PRIMARY AIMS**

Giving the knowledge about structural – functional features, and common diseases of children at different age, as well as developing certain mactical skills and attitude to children in stomatologist practice.

## **3. MAIN OBJECTIVES**

1. to understand the growth and development of children;
2. to study structural – functional features of children body, their clinical interpretation and significance in dentist practice;
3. to understand the role of nutrition as a cause of certain stomatological pathology;
4. to study peculiarities of physical examination of children and common children diseases needed in dentist practice;
5. to know structure and organization of children health care and main principles of preventive pediatrics.

## **4. HOURS IN THE CURRICULUM**

The cause consists of 10 hours of lectures, 30 hours practical classes with clinical teaching.

## **5. METHOD OF LEARNING /TEACHING**

Students have 10 hours lectures during the 5 weeks in spring semester of 3<sup>rd</sup> year; lectures are delivered in the lecture theatre. Practical classes are during the next time. Students are working in groups with 8 – 10 persons. They have 8 practical classes in the Children clinical hospital of university. They are making clinical interview and relevant medical examinations under supervision of teacher.

## **6. ASSESSMENT METHODS**

During practical classes students have tests in the patient physical examination. Students have the theoretical test at the end of the spring semester of 3<sup>rd</sup> year. They answer to questions by writing answers.

## **7. STRENGTHS**

1. the course has well – defined aims;
2. students have lectures before the practical classes in clinic;
3. course helps to communicate with children in stomatological practice.

## **8. WEAKNESS**

- 1) practical classes in clinics are on the afternoon time when students are already tired and patients are at the rest;
- 2) insufficient supply whit textbooks;
- 3) uncompleted hand – put material for students.

## **9. INNOVATIONS AND BEST PRACTICES**

- 1) course is planned and designed and co-ordinated with need of stomatologist students;
- 2) course material is illustrated with clinical cases relevant to stomatologists;
- 3) teaching in the practical classes in clinic is very closed with patients (children), students can train practical skills in real situations.

## **10. PLANS FOR FUTURE CHANGES**

- 1) preparing of course booklet for students;
- 2) more precise integration with internal medicine course.

## **8.5. PSYCHIATRY AND NARCOLOGY**

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### **1. INTRODUCTION**

The objective is to provide the acquisition of knowledge by students about the ethyology, pathogenesis, symptomatology, course and prophylaxis of mental disorders and diseases, about treatment and rehabilitation of mental patients.

### **2. PRIMARY AIMS**

The primary aims of teaching are:

1. To provide adequate understanding of patient assessment and mental health care
2. To masters skills management of mental patients, rendering specialized stomatological treatment.

### **3. MAIN OBJECTIVES**

1. To provide a back ground medical knowledge of conditions relating to mental diseases and mental disorders due to psychoactive substance use.

2. To know about somatoform and hypochondriac disorders, that may localized in the rigen of the face, in the jaw and teeth.
3. To provide practical experience in patient assessment.
4. To get information about sending the patients for consultation with a psychiatrist.

#### **4. HOURS IN THE CURRICULUM**

The combination of lectures, practical skills training and attendance at general psychopathology, mental diseases and mental disorders due to psychoactive substance use sessions amounts to 25 – 30 hours per student.

#### **5. METHOD OF LEARNING/TEACHING**

Lectures on topics relating to organic mental disorders, mental and behavioral disorders due to psychoactive substance use, schizophrenia, schisotypal, delusional disorders, mood disorders, neurotic, stress – related and somatoform disorders, disorders of adult personality and behaviour , behavioural syndrome association with physiological, disturbances and physical factors, mental retardation, disorders of psychological development unspecified mental disorders in childhood.

Practical sessions in the Psychiatric hospital and Narcological center.

#### **6. ASSESSMENT METHODS**

Questions within the final test are based on taught material and will usually include at least one relating to somatoform and hypochondrical disorders localized in the face, in the jaw and teeth.

#### **7. STRENGTHS**

Teaching process to provide training and the one – to – one attachment to acute psychiatric departments as well as narcological departments (for patients with mental and behavioural disorders due to psychoactive substance use).

#### **8. WEAKNESSES**

The changing practice of Psychiatry and Narcology has meant that there is much less emphasis on emergency psychiatric aid and emergency aid in acute narcological practice.

#### **9. INNOVATIONS AND BEST PRACTICE**

1. Training in somatoform disorders and body dismorphophobic disorders.
2. Organizing consultation of specialist and to render emergency psychiatric aid.

#### **10. PLANS FOR FUTURE CHANGES**

1. Human rights in psychiatry and narcology
2. Destigmatisation of psychiatry
3. Emergency aid in acute psychiatric patients and acute conditions due to psychoactive substance use.

## **8.6. INTERNAL DISEASES EMERGENCY MEDICINE**

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### **1. INTRODUCTION**

Dental students are taught in internal diseases basis including dangerous emergency cases course and this is the part of the most extensive program on general medicine.

The terms of education include V and VI semesters parallel to the training in pathology, pharmacology and surgery. This method of approach ensures the best integration of dentist-students into general medicine problems.

### **2. PRIMARY AIMS**

To train dental students in examination of patients with internal organs pathology; to teach the students to make a diagnosis and to compile a plan of treatment; dangerous emergency states and first aid included.

### **3. MAIN OBJECTIVES**

To improve the level of necessary knowledge in therapy as for any specialty doctors.

To precise the role of the mouth pathology in etiology of internal diseases, its pathogenesis and clinical gait.

To precise the role of internal diseases in teeth and mouth mucous pathological symptoms clearance.

To teach the pharmacotherapy principles.

To train in skills and knowledge which are necessary for dentists in cases of emergency.

To understand the importance of taking and recording a medical history in patients with dental problems. To appreciate those symptoms that warrant referral to a medical practitioner and elements of the physical examination that may point to specific a medical diagnosis.

To appreciate the clinical presentation of patients with heart diseases including medical emergencies such as myocardial infarction and cardiac arrest. To have some understanding of the medical investigation and treatment of these disorders.

To understand the importance of valvular heart disease, including the prevention and treatment of infective endocarditis.

To understand the clinical presentation, investigation and treatment of patients with chest disorders including asthma, bronchitis, emphysema and lung cancer. To have a working knowledge of the treatment of acute respiratory emergencies such as asthma and pulmonary embolus in the dental surgery.

To appreciate the common gastrointestinal conditions that affect patients including peptic

ulceration, inflammatory bowel disease and neoplasm.

To understand the types of liver disease that may affect patients attending a dental surgery and precautions required when managing them.

To understand the presentation, investigation and treatment of endocrine problems with particular emphasis on the management of diabetes in dental practice. The special attention is paid to the diagnostic and treatment of comatous states caused by diabetes.

To be taught to appreciate the role of dentist in diagnostic and treatment of blood disorders and haemopoetic system disorders including anemia, leukemia, bleeding diathesis. Dentist's tactics in case of increased bleeding and hypercoagulation.

#### **4. HOURS IN THE CURRICULUM**

Educational course consists of 2 parts:

1. The first one – V sem.- including 32 lecture hours, and 48 hours of practice and 3 hours of test practice on the theme of internal diseases and propedeutics basis.
2. The second one- VI sem.-10 lectures hours, 15 practice hours and 3 hours of test practice on emergency cases including emergency aid.

#### **5. METHODS OF LEARNING/TEACHING**

Lectures and practice are conducted at the P.Stradins University Clinical Hospital Specialized Internal diseases clinics.

Students take an active part in conducting of 16 lectures course. Students are asked to read the relevant portions of the course booklet before attending a two-hour session where the material for 2 topics is taught. Practice on the same theme are conducted in the same manner, patient are to be demonstrated as early as possible. One-hour summarizing practice is to be conducted after every theme (see “main objectives”) being studied. Clinical material is being illustrated with laboratory and instrumental data, e.g. slides, history cases, endoscopy, CT or USI data.

The course of 5 lectures concerning the most important emergency cases in internal diseases clinics is conducted during VI semester. Students work in the reception ward, in reanimation and intensive cardiological departments during their practice.

#### **6. ASSESSMENT METHODS**

Students are formally examined twice: after V semester and after VI semester. Students are to answer a written paper, a multiple-choice paper and some elements of OSCE. The chief of the Therapeutically Chair of Latvian Medical Academy supervises the exams.

#### **7. STRENGTHS**

The course has well-defined aims and the core material is clearly presented to students in a course booklet. Students enjoy the course and the chance to study areas of health outside dentistry. The majority of the course is planned and delivered by good-skilled teachers who are specializing in internal diseases and hence can be directly tailored to the needs of dental students with rapid implementation of any changes that are required.

#### **8. WEAKNESSES**

1. Irregular integration between theoretical subjects (pathology, pharmacology) and clinical (therapy, surgery) subjects. The education should be transferred to the VI and VII semesters.

2. Loss of time: main stomatological subjects are taught in the Institute of Stomatology but Internal diseases at the same time are taught in the another place ( University Hospital).
3. Acquired experience and skills seems to be insufficient to create a clear notion about the importance of internal diseases knowledge for dental students.

## **9. INNOVATION AND BEST PRACTICES**

1. Core material is clearly presented to students in a course booklet.
2. Course is planned and delivered in close association with needs of dental students
3. Course material illustrated with medical cases relevant to dentistry
4. Bedside clinical teaching flexible and geared to needs of individual groups of students

## **10. PLANS FOR FUTURE CHANGES**

1. Course booklet will be thoroughly revised and updated next year
2. Greater integration with surgery and pharmacology teaching.
3. Greater independence and responsibility of the students, especially in the V semester.

## **8.7. OTORHINOLARINGOLOGY**

**NAME: Dr. med., Prof. J. Sokolovs**

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### **1. INTRODUCTION:**

Otolaryngology ( ENT) is thought in the 3rd year of the Dental Course as part of program that includes General Medicine, Surgery and Clinical Pharmacology.

Course is examined at the end of the Spring Term. The course ensures that students in AML/RSU qualify with a good understanding of how Otolaryngology interfaces with dental practice.

### **2. PRIMARY AIMS**

To give Dental Students a basic knowledge in the pathology of ENT organs and related structures with emphasis on those problems that impinge on the practice of dentistry.

To encourage and to facilitate Dental Students self- direct learning in those aspects that might interest students throughout their professional lives.

### **3. MAIN OBJECTIVES**

1. To understand the importance of taking a medical history in-patients with dental problems.  
To appreciate those symptoms that warrant referral to a medical practitioner and elements of the physical examination that may point to a medical diagnosis.
2. To perform ENT organs examination, to evaluate objectives- radiological imaging, laboratory findings.

3. To understand the importance of hearing loss, vertigo, earache, otosclerosis, tinnitus- the principal symptoms attributed to the ears.  
Examination methods, in addition the teeth, tongue, tonsils, salivary glands, TMJ examination since pain and discomfort may be referred from them to the ears.
4. To have a working knowledge of the treatment of acute respiratory emergencies such as asphyxia, laryngospasm in the dental surgery.
5. To understand the types of hearing loss and role of hearing in mental, psychosocial development of a child, economic impact of severe hearing loss. The prevention of hearing loss which lies in optimal language function and human rights for the quality of life.
6. To understand the clinical presentation of upper respiratory organs, emergency treatment (edema, anaphylaxis )
7. To get familiar with possible dangerous life threatening complications of ENT organs such as otitis media, sinusitis paranasalis – meningitis, meningoencephalitis, brain abscess.
8. To be familiar with first aid steps in ENT emergencies – stenosis laryngis, skull base fractures, nose bleeding.
9. To get familiar with possible mucosal changes of the pharynx especially oropharynx due to local or systemic disorders (viral, bacterial inflammation, tumors, peritonsillar quinsy, hematological disorders).
10. To be aware of important general principles of head and neck neoplasm's and with the situation in which cervical metastasis is present but the primary neoplasm cannot be determinate. Send a patient to the specialist on time.

#### **4. HOURS IN THE CURRICULUM**

The Course consists of 18 hours of lectures, 54 hours of practice.

#### **5. METHOD OF LEARNING/ TEACHING**

The curriculum is divided into 18 topics, the core information is covered in the books available in AML/ RSU library (strongly advised to use the book of Hall, Colman's "Diseases of Nose, Throat and Ears and Head and Neck" 1992.) together with the notes from lectures. Practical sessions are delivered in Riga Stradins Hospital; time is spent illustrating important points with clinical materials, slides, and case histories, discussing them. Opportunities also exist to witness procedures such as operations, surgical manipulations.

The lectures read-out will happen once a week and takes a time of 2 academic hours.

#### **6. ASSESSMENT METHODS**

Students have to successfully pass differential examination test, at the end of spring term of the 3rd academic year. Test consists of practical exam, written case report and 4 theoretical questions.

#### **7. STRENGTHS**

The course has well- defined aims; students enjoy the course and the chance to study areas of health outside dentistry. The course is planned for a reason to make a broad knowledge's to dentistry; in such ENT cases what can happen in following dental practice and to delivery help to patients in ENT emergency situations.

## **8. WEAKNESSES**

Curriculum is not planned for a one large course, but is broadened for one-week sessions. The course books are 8 years old and require additional information.

## **9. INNOVATIONS AND BEST PRACTICES**

1. Course is planned and delivered in close association with needs of Dental Students.
2. Course material illustrated with medical cases relevant to dentistry.
3. Bedside clinical teaching flexible and geared to needs of individual groups of students.

## **10. PLANES FOR FUTURE CHANGES**

1. Consideration to be given to replacing course with 2-week medicine block.
2. Course program should be adapted regarding European Union directives.

### **8.8. DISASTER MEDICINE**

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#### **1. INTRODUCTION**

Disaster Medicine is taught in the 4<sup>th</sup> year of the studies in the Stomatology Faculty as a training program for physicians based on the international experience and recommendations, designed to allow the practitioners to be familiar with general principles and practical skills in disaster medicine.

#### **2. PRIMARY AIMS**

The primary aims of teaching are:

1. to provide adequate understanding of general principles of disaster medicine and medical management of disasters
2. to ensure an acceptable level of practical skills of clinical assessment, triage, extent and priority of emergency treatment of casualties on the scene of disasters, during the transportation and in hospitals

#### **3. MAIN OBJECTIVES**

1. to provide a background knowledge of types of disasters, rescue services involved in management of disasters, risk assessment, preparedness and planning
2. to provide knowledge regarding assessment, triage and treatment of injured persons at the accident site, during the transportation and at hospitals
3. to provide knowledge regarding treatment capacity of medical care system in different levels, protective measures and logistics in disaster medicine



4. to provide knowledge regarding application of Advanced Trauma Life Support Protocol in disasters
5. to provide knowledge regarding application of methods to support of upper airways, respiratory function, stabilisation of circulation in disasters

#### **4. HOURS IN THE CURRICULUM**

The Course consists of 10 hours of lectures, 10 hours of practical teaching and training

#### **5. METHOD OF LEARNING/TEACHING**

1. lectures on topics related to general knowledge of disasters, disaster management and disaster medicine
2. practical sessions in classroom and in the Intensive Care Unit for life support skills related to medical situation in disasters

#### **6. ASSESSMENT METHODS**

Questions within the final credit are based on taught material at the end of the autumn term.

#### **7. STRENGTHS**

Clinical assessment of intensive care patients (conditionally take for disaster patients) with airway, respiratory and circulation problems and severe trauma.

#### **8. WEAKNESSES**

There are certain difficulties to familiarize the practical skills on the prehospital level of disaster management

#### **9. INNOVATIONS AND BEST PRACTICE**

Training in clinical assessment and life support skills according to maneuver situation of disasters

#### **10. PLANS FOR FUTURE CHANGES**

1. Upgrading of lecture and practical training material
2. Utilization of situation games to approximate to the conditions of different disasters

#### **8.9. NEUROLOGY AND NEUROSURGERY**

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## **1. INTRODUCTION**

Diseases and lesions of central and peripheral nervous system ( pathogenesis, epidemiology, topical and clinical diagnosis, therapy) is taught in the 4<sup>th</sup> year autumn term as part of internal medicine course. The course provides the link between particularity of dentist work and nervous system diseases and lesions and understanding and therapy principles, and how them interfaces. In the teaching course students in the Neurology and Neurosurgical clinics of the university have clinical classes where specifies theoretical understanding and practical skills. At the end of the course students have to pass examination in- writing and orally.

## **2. PRIMARY AIMS**

1. To give Dental students a grounding and understanding about frequently observing neurological syndromes and diseases which impact central nervous system in practical dentistry.
2. To facilitate self directed learning about diseases and lesions of central and peripheral nervous system in those aspects that might interest students throughout their professional lives.
3. To introduce with expression of nervous system pathology and give some understanding about pharmacological and operative therapy.

## **3. MAIN OBJECTIVES**

1. To appreciate lesions of central, peripheral and vegetative nervous system. To appreciate symptoms and syndromes that depends on site and expanse in the nervous system.
2. To understand nervous system investigation methods - facility, indications.
3. To appreciate results of investigation methods ( LP, plain films, CT, MR, EhoEs, EhoPs).
4. To understand clinical presentation of cranial nerves lesion. To have understanding of medical investigation and treatment. To understand how these may present in dental practice.
5. Understanding of stomatoneurological syndromes (genesis, clinical presentation, investigation, differential diagnosis, treatment)
6. To appreciate relationship between cerebral, crevice - brachial and face, jaws, mouth lesions (genesis, investigation, treatment), management in dental practice
7. To understand treatment and management for patients with different levels of consciousness disturbances in dental practice.
8. To understanding types of cerebrovascular diseases ( stroke, a.vertebralis syndrome, SAH), demences - clinical presentation, investigation methods, treatment. To understand how these may present in dental practice and precautions required when managing them.
9. To understanding neoplasm of nervous system, neuroinfections, epilepsy, spondiloses ( clinical presentation, investigation, treatment tactics) and precautions when managing them.
10. To appreciate headaches course, clinical presentation, and relationship with inherited and acquired pathology of face, jaws, mouth, and nasal sinuses.
11. To understand neurological emergencies. To have a working knowledge of treatment of acute neurological emergencies such as stroke, epilepsy in the dental procedures. Emergency aid for patients with head trauma, spinal trauma, status epileptics, acute stroke and paroxysmal states.

## **4. HOURS IN THE CURRICULUM**

The course consists of 4 lectures (each 2 hours) and 7 clinical classes (each 3 hours)

## **5. METHOD OF LEARNING/ TEACHING**

Course of Neurology and Neurosurgery include compact ceaseless students teaching during autumn term: lectures, single - handed knowledge iterating in the nervous ( central, peripheral, vegetative) system anatomy, histology, physiology and a week long non - stop clinical course in the Neurological and Neurosurgical clinics.

In the 8 hours lectures students are introduced with recent principles in the Neurology and Neurosurgery ( mainly from stomatologist aspect)

Before teaching course students got methodical materials, plots, literature, program with demands and questions in the Neurology and Neurosurgery (self- examination and pretest), recommended literature.

Clinical teaching course take place in the Neurological and neurosurgical clinics one week long, each day 3 hours. During clinical classes students specifies theoretical understanding about different neurological lesions and diseases.

In the program will be shown the pathologies of the nervous system, detailed investigations, the necessary diagnostic complex, and administering of medical care tactics in the clinical environment for serious patients. First, patient evaluations to be part of a study group are performed. Further, the students evaluates patients with different neurological conditions in a diagnostical amount, medical care tactics that are given to the docent in written documentation. The program is in seven days time evaluated, understood and the obtained tactical understanding for medically treated neurological syndrome groups, patients with nervous system pathologies such as:

1. Nervous system motor function damage ( central, peripheral)
2. Disturbances of balance
3. Extrapyrimalid system damage
4. Occurrences of pain in the facial area, mouth area, and in other body parts
5. Sensory disturbances
6. Damage of cerebral cortex
7. Spinal damage and damage of the intervertebral disc
8. Cranial nerve damage
9. Head injuries
10. Neck and spinal trauma
11. Circulations disturbances in the brain
12. Spontaneous subarachnoida hemorrhagie
13. Parenhimatologic hemorrhagie
14. Spinal hemorrhagies
15. Epilepsy and epileptic- like reactions
16. Brain and spinal tumors
17. Infections of the nervous system
18. Vegetative nervous system disturbances, paroxysmal states
19. Liquor dynamic changes
20. Dorsopathias

The program is for training for treatment of specific pain syndrome conditions.

## **6. ASSESSMENT METHODS**

1. During the cycle, the docent performs in each study, theory and tests verifying understood themes and class themes; patient' s written self – evaluation; patient group survey selects control.
2. At the end of the cycle, verification of the program is performed through a test, patients protocol test.
3. Winter session is evaluated through written and oral test. Results in “A” form.

## **8.10. PSYCHOSOMATIC MEDICINE AND PSYCHOTHERAPY**

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### **1. INTRODUCTION**

The Behavioural Sciences course has 72 hours lectures and 36 hours seminars and tutorials held in the 1<sup>st</sup> and 2d academic year.

The course introduces non-clinical medical psychological and sociological issues relevant to dentistry.

### **2. PRIMARY AIMS**

To establish an understanding of the subjects of medical psychology, psychosomatic medicine and sociology as they relate to dentistry.

### **3. MAIN OBJECTIVES**

1. the development of appropriate communications skills – to give knowledge and opportunity to develop skills in psychology of communication, basic principles and regulations in making relationships between a doctor and a patient;
2. to give knowledge about the regularities of human psychological functioning and interaction among somatic and psychological processes; to give knowledge about models of development of psychosomatic disorders and diseases;
3. to give knowledge in personality psychology, developmental, social psychology, psychology of management.

### **4. HOURS IN THE CURRICULUM**

Lectures – 72 hours, seminars and tutorials – 36 hours.

### **5. METHODS OF LEARNING/TEACHING**

Each student attends one weekly lecture and one weekly seminar or tutorial. Each student is expected to prepare a essay and to analyse it. The seminar sessions allow students the opportunity to explore, discuss and clarify issues covered in the lecture course and red all alone in the regarding literature.

## **6. ASSESSMENT METHODS**

The students have to write essays, to analyse them. At the end of course there is examination.

## **7. STRENGTHS**

The teaching resources – both in theoretical and practical direction.

## **8. WEAKNESSES**

To less seminar and tutorial hours to compare with the lecture hours. The studying time 1<sup>st</sup> and 2<sup>nd</sup> academic year; better would be on the 2d and 3d academic year, when the students have more big clinical experience.

## **9. INNOVATIONS AND BEST PRACTICES**

1. improved teaching of communication psychology with some team, management and leadership issues, with the self-experience exercises,
2. video-trening elements.

## **10. PLANS FOR FUTURE CHANGES**

The better curriculum time should be and the better integration with the other clinical subjects.

## **SECTION 9**

# **ORTHODONTICS AND CHILD DENTAL HEALTH**

- 9.1. ORTHODONTICS**
- 9.2. CHILDREN STOMATOLOGY**
- 9.3. CHILDREN SURGICAL  
STOMATOLOGY**

## **9.1. ORTHODONTICS**

## **9.2. CHILDREN STOMATOLOGY**

## **9.3. CHILDREN SURGICAL STOMATOLOGY**

### **9.1. ORTHODONTICS**

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### **1. INTRODUCTION**

The department of orthodontics was established in 1998, till that time the course of orthodontics as separate course was included in the course of orthopedic stomatology. After 1996 orthodontics undergraduate course was developed on the basis of the existing courses of orthodontics and the obtained experience in Wales University Cardiff Dental school. Orthodontic course starts during the second term of the third year of studies with the lectures and seminars on the craniofacial growth and development. During the 4<sup>th</sup> year of studies introduction to the clinical skills and laboratory instruction is started. During the 5<sup>th</sup> year of studies to acquiring of clinical knowledge with emphasis on integrated diagnosis and treatment planning – preventive dentistry, paedodontics and orthodontics, cooperated with the department of pedodontics is continued the orthodontic course is included in of 5 terms in the 3<sup>rd</sup>; 4<sup>th</sup> and 5<sup>th</sup> years of study.

### **2. PRIMARY AIMS**

Teaching main principles of diagnosis of malocclusions and dentofacial anomalies, conception of treatment necessity, and main treatment methods.

### **3. MAIN OBJECTIVES**

The overall objectives of the orthodontics course are to produce a graduate who:

1. understands normal patterns of growth and development (physical, emotional, psychological, social and dental) and recognizes deviations from the norm and how to manage them appropriately
2. understands different kinds of skeletal and dental malocclusions, etiology, pathogenesis and their classification
3. understands basic methods and principles of diagnosis and treatment planning
4. Understands basic principles of orthodontic appliances, indications and choice of appliance for different malocclusions in mixed dentition and permanent dentition
5. Identifies those individuals or conditions that require specialist advice or treatment and refer them appropriately.



## 4. HOURS IN CURRICULUM

Lectures	32 X 3 hours seminars in the 4 <sup>th</sup> year
Technical laboratory	X 6 sessions for laboratory instruction
Clinic	X 1 session per week for 18 months during 4 <sup>th</sup> and 5 <sup>th</sup> years in the Stomatology institute Undergraduates of 4 <sup>th</sup> course have to analyze one clinical case – develop diagnosis – clinically, on models and cefalogramms. Undergraduates of 5 <sup>th</sup> course have to analyze and presented 2 clinical case.

## 5. METHOD OF LEARNING/TEACHING

Lectures	There are 15 lectures of 90 minutes duration
Seminars	These are the principle methods of developing skills working of the morning with the literature, with models and cefalogramms
Laboratory	Getting experience in the preparing models, understanding procedures of appliance
Clinical instruction	Chaired instruction in the clinical management of child and adult orthodontic patients. For 8 students there are 2 supervisors. Seminars, laboratory and clinics hours 247. All students expected to establish and maintain the academic log – book of an orthodontic case that is being treated by a member of staff.

## 6. ASSESSMENT METHODS

Academic	<ul style="list-style-type: none"><li>- assessment of literature review, model analysis , and cefalogramms</li><li>- multiple choice</li></ul>
Clinical	<ul style="list-style-type: none"><li>- assessment of case report</li><li>- assessment of the level integration of orthodontics paedodontic preventive and oral surgery</li></ul>
Assessment twice a year and grades:	<ol style="list-style-type: none"><li>1. Practical Skills,</li><li>2. Academic Ability,</li><li>3. Professional Attitude</li></ol>
Every 5-6 students selectevly are engaged writing course prepare in orthodontics.	

## **7. STRENGTHS**

1. Application of theoretical knowledge in clinic.
2. Literature review public presentation..

## **8. WEAKNESSES**

1. Course not integrated with other departmental courses.
2. Late and limited clinical exposure in orthodontics.
3. Insufficient availability of Academic literature.

## **9. INNOVATIONS AND BEST PRACTICE**

1. Public presentation of literature review.
2. Students participation in epidemiological research.

## **10. PLANS FOR FUTURE CHANGES**

1. Extend integration process between orthodontics and paedodontics departments.
2. Introduce Problem Based learning approach process.

## **9.2. CHILDREN STOMATOLOGY**

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### **1. INTRODUCTION**

The course of Children Stomatology includes knowledge on principles of formation of children's teeth and occlusion, illnesses of children's teeth and oral cavity, their prevention and treatment. The course is taught in the 4<sup>th</sup> and 5<sup>th</sup> year of studies. In the 7<sup>th</sup> and 8<sup>th</sup> semester lectures are delivered. In the 8<sup>th</sup> semester practical clinical work starts as well as theoretical seminars take place. In the 9<sup>th</sup> and 10<sup>th</sup> semester practical in clinic continue and seminars integrated with orthodontics take place. Practical work is performed in Children Department of the Stomatology Institute.

### **2. PRIMARY AIMS**

1. To acquaint students with developmental periods of children's teeth and occlusion;
2. To teach anatomical peculiarities of milk and the new permanent teeth and their importance in clinics.
3. To help students to learn caries features and treatment in children's teeth.

4. To teach endodontic methods of treatment of milk and permanent teeth in cases of pulpitis and periodontitis.
5. To teach treatment of dental traumatic.
6. To teach methods of diagnosis and treatment of periodont in children.
7. To teach to diagnose and treat the most common diseases of mucosa in children.

### **3. MAIN OBJECTIVES**

Finishing the course students should know:

1. The main periods of child's development, their relation to dental development and formation of occlusion.
2. Development of primary occlusion, change occlusion.
3. Incidence of caries and its intensity in children, significance in dentist's work.
4. Diagnosis and treatment of caries in primary deciduous occlusion and in the new permanent teeth.
5. Diagnosis, clinics and treatment of pulpitis in primary teeth, depending on the dental development and root resorbtion.
6. Diagnosis and treatment of pulpitis of the permanent teeth, methods of treatment which promote apexogenesis.
7. Treatment of periodontitis in children's permanent teeth.
8. Classification of dental traumata, diagnosis, fractures of dental crowns in deciduous and permanent teeth.
9. Fractures of roots of the frontal teeth, luxations, their types and methods of treatment.
10. Features of mucosal structure in infants and young children, traumatic lesions of mucosa.
11. Manifestations of candidosis in children's oral cavity.
12. Viral infectious oral diseases in children (acute herpetic stomatitis, recidous apthae, Herpes labialis, herpangina, lymphonodular phryngitis, infectious mononucleosis, small-pox, measles, diphtheria, papillomatosis).
13. Recidous apthae.
14. Illnesses of the lips.
15. Principles of treatment of mucosal diseases.
16. Features of periodontal structure in primary and change occlusion.
17. General diseases accompanied by changes in periodont. Compulsory syndromes.
18. Acute and chronic gingivitis, principles of treatment. Prevention.
19. To make diagnosis and develop the plan of treatment.
20. To take responsibility on complex child care.

### **4. HOURS IN THE CURRICULUM**

Lectures 24 hrs

Practicals and seminars 168 hrs

### **5. METHODS OF LEARNING/ TEACHING**

The programme comprises lectures, seminars for small groups, rewiev of literature, practical clinical work as well as course papers.

### **6. ASSESSMENT METHODS**

Students' knowledge is evaluated on both formative and summative basis - practical works, short tests during a semester as well as marks for certain assessments - course papers, review of literature in seminars, examination).

For summative assessment clinical knowledge and skills as well as professional attitude are evaluated. The course papers are evaluated by several teachers of the department. The best works are promoted for Student Scientific Conference.

In the 5<sup>th</sup> year (9<sup>th</sup> semester) students take examination in Children Stomatology.

## **7. STRENGTHS**

1. Training of students takes place in a well-equipped dental clinic in small groups.
2. The teaching staff has enough time to devote to each student.
3. The number of patients at different age is sufficient for students.

## **8. WEAKNESSES**

1. Shortage of textbooks and periodicals.
2. Lack of materials and training on moulds.
3. Shortage of finances for sufficient supply with necessary materials.
4. Insufficient integration with orthodontics.

## **9. INNOVATIONS AND BEST PRACTICES**

Training in small groups, students can work individually, they improve manual skills.

## **10. PLANS FOR FUTURE CHANGES**

1. To improve supply with special literature, textbooks and periodicals
2. To design a programme sufficiently integrated with orthodontics
3. To look for financial and material resources to improve the training programme.

## **9.3. CHILDREN SURGICAL STOMATOLOGY**

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### **1. INTRODUCTION**

The teaching regarding children surgical stomatology changed over the years from a programme designed to allow the general dentists to provide surgical help for children in cases of inflammations, injuries, orthodontic problems, trimorous diseases, congenital and acquired deformities.

### **2. PRIMARY AIMS**

To give knowledge of children surgical stomatology; Obtain practical skills to perform common procedures.

### **3. MAIN OBJECTIVES**

Anatomical, physiological and immunological peculiarities of children oro – maxillofacial region; Anaesthesia of children dentistry; Children Indications, contrindications and extractions of teeth; Peculiarities of inflammatory diseases of oro – maxillofacial region; Periodontitis. Periostitis. Osteomyelitis. Abscessus and cellulitits; Lymphadenopaties; Frenulum pathology of lips and tongue and surgical correction; Children cysts of jaws; Cleft lip and palate; Children injuries of soft tissue, teeth and jaws; Children oncological diseases of oro – facial region; Children tempromandibular disorders: ankylosis, juvenile arthritis and dysfunction.

### **4. HOURS IN THE CURRICULUM**

The combination of lectures, practical skills training and attendance at Cleft center, consultations amounts: 180 hours per student totally, included lectures: 12 hours, practical training and seminars: 168 hours.

### **5. METHOD OF LEARNING/TEACHING**

- 1) Lectures on topics relating to patients care and drugs
- 2) Practical sessions children examination and surgical procedures.

### **6. ASSESSMENT METHODS**

Questions within the final state examination are included in taught material in both multiple choice and theoretical examination. The course examination is held the end of 5<sup>th</sup> year autumn session.

### **7. STRENGTHS**

Clinical basis including Latvian Cleft center, dental Hospital where students are in good contact with 7 types of various specialists who are involved in rehabilitation of children with congenital and acquired deformities, diseases and injuries.

### **8. WEAKNESSES**

It is hard for students to achieve a high level of manual skills, to develop their experience while studying because of irregular flow of patients – children who undergo treatment at the clinic. There are no textbooks in students' native language.

### **9. INNOVATIONS AND BEST PRACTICE**

- 1) To increase a number of the so called thematic patients for each subject.
- 2) To organise, to set up a videoteque following the objectives and topics of the course.

### **10. PLANS FOR FUTURE CHANGES**

To create and publish a textbook in Latvian.

### **VISITOR'S COMMENTS**

## **SECTION 10**

# **PUBLIC DENTAL HEALTH AND PREVENTION**

- 10.1. PREVENTIVE DENTISTRY**
- 10.2. COMMUNITY DENTISTRY**

## **10.1. PREVENTIVE DENTISTRY**

## **10.2. COMMUNITY DENTISTRY**

### **10.1. PREVENTIVE DENTISTRY**

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#### **1. INTRODUCTION**

The Preventive Dentistry course comprises a series of lectures, seminars, practical works, course projects during the 2<sup>nd</sup> year II term, 3<sup>rd</sup> year I, II term.

#### **2. PRIMARY AIMS**

To provide students with knowledge in prevention of the main dental illnesses, to form positive attitude towards healthy life style, teaching to elaborate preventive programs and to organise preventive measures in dentistry.

#### **3. MAIN OBJECTIVES**

1. To get acquainted with indices of dental illnesses in Latvia and other countries, to evaluate them.
2. To assess risk factors of dental illnesses.
3. To know mechanisms of action of preventive means and their usage in population of all age groups.
4. To understand importance of healthy food in decreasing of dental illnesses.
5. To organise oral health promotion activities in nurseries and schools.

#### **4. HOURS IN THE CURRICULUM**

99hrs (lectures + seminars + practical works) during the 2<sup>nd</sup> year II term, 3<sup>rd</sup> year I, II term.

#### **5. METHODS OF LEARNING/ TEACHING**

The teaching methods include formal lectures, group seminars, practical works, reading scientific literature, course project.

#### **6. ASSESSMENT METHODS**

At the end of the course exam. The questions from this course are later included in a final multiple - choice and viva – voice exam at the end of the 5<sup>th</sup> course.

At the II term semester – 4<sup>th</sup> course it is also possible to have a course paper in this subject.



## **7. STRENGTHS**

The course provides basic knowledge in preventive dentistry. This will help a dental team to participate in the introduction of National Preventive Program in Dentistry.

## **8. WEAKNESSES**

The Public Health care sector and system in Latvia is now in a “building up” stage - Community Dentistry is a part of that, in Riga city the Oral Health Centres will be organised, so sometimes we have difficulties with practical works outside the faculty. No good library facilities. In the future students' knowledge in English must be improved.

## **9. INNOVATIONS AND BEST PRACTICES**

The Preventive Dentistry course comprises a series of lectures. Seminars, practical works, course projects are organised in small groups.

## **10. PLANS FOR FUTURE CHANGES**

In the future to be more integrated with the course of Paediatric Dentistry and Orthodontics. To organise students practical works not only in nurseries and schools but also in the Centre of Rehabilitation for handicap children.

### **10.2. COMMUNITY DENTISTRY**

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## **1. INTRODUCTION**

The Community Dentistry course is a new course in our faculty (started spring 2000) and for the first period will be as a part of Preventive Dentistry Course (consisting of 21hrs (lecturers and seminars) – 3<sup>rd</sup> year, II term).

## **2. PRIMARY AIMS**

To provide undergraduate students with basic knowledge, attitudes and skills within community dentistry.

## **3. MAIN OBJECTIVES**

- 1) To understand the principles of epidemiology in dentistry.
- 2) To understand and evaluate principles of health promotion and education.
- 3) To understand and be able to recommend preventive programmes and strategies in contrast to treatment regimes.

- 4) To understand how to plan and implement oral health care service at the local community level.
- 5) To develop critical skills and evaluation of scientific literature in Community dentistry.

#### **4. HOURS IN THE CURRICULUM**

21hrs (lectures + seminars) during the 3<sup>rd</sup> year II term.

#### **5. METHODS OF LEARNING/TEACHING**

The teaching methods include formal lectures, group seminars, reading scientific literature.

#### **6. ASSESSMENT METHODS**

At the end of the course exam. The questions from this course are later included in a final multiple - choice and viva – voice exam at the end of the 5<sup>th</sup> course.

At the II term, 4<sup>th</sup> year it is also possible to have a course paper in this subject.

#### **7. STRENGTHS**

The strengths of the course lie on well-established clinical practice.  
Enthusiastic teachers.

#### **8. WEAKNESSES**

This is totally new subject in Latvia higher dental education. It will strongly help to introduce National Preventive Program in Dentistry.

#### **9. INNOVATIONS AND BEST PRACTICES**

Totally new course (started spring 2000).

#### **10. PLANS FOR FUTURE CHANGES**

To be a separate course. In the future more teaching hrs in the 4<sup>th</sup> and 5<sup>th</sup> course. Develop more lecture themes (such as behavioural sciences, ethics and health science, health economics). In the course to involve other professionals – from dental service sectors, statistics, Public Health sectors.

#### **VISITOR'S COMMENTS**

## **SECTION 11**

# **RESTORATIVE DENTISTRY AND ENDODONTICS**

**11.1. PRECLINICAL COURSE OF  
OPERATIVE DENTISTRY**

**11.2. PRECLINICAL ENDODONTICS**

**11.3. PATHOLOGY OF DENTAL HARD  
TISSUE**

**11.4. ENDODONTICS**

**11.5. PROSTHODONTICS**

## **11.1. PRECLINICAL COURSE OF OPERATIVE DENTISTRY**

### **11.2. PRECLINICAL ENDODONTICS**

### **11.3. PATHOLOGY OF DENTAL HARD TISSUE**

### **11.4. ENDODONTICS**

### **11.5. PROSTHODONTICS**

## **11.1. PRECLINICAL COURSE OF OPERATIVE DENTISTRY**

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### **1. INTRODUCTION**

Preclinical course of Operative Dentistry (OD) deals with basic principles of cavity preparation and filling. It is a part of Therapeutical Stomatology.

Training starts in the 2<sup>nd</sup> study year and continues in the 3<sup>rd</sup> year.

To master the course students should have preliminary knowledge in dental anatomy, histology and physics.

### **2. PRIMARY AIMS**

To furnish students of knowledge on basic principles of cavity formation and filling, on content of the filling materials, indications for usage as well as the necessary skills for application of this knowledge into practical management of caries.

### **3. MAIN OBJECTIVES**

To learn:

- 1) Places of caries localisation.
- 2) Classification of caries and cavities.
- 3) Basic principles and stages of cavity formation.
- 4) To acquire information about qualities and classification of the new materials used in other countries.
- 5) To acquire information about indications for usage of the filling materials and consequence of manipulations.

### **4. HOURS IN THE CURRICULUM**

Lectures 26 hrs

Practicals 115 hrs

## **5. METHODS OF LEARNING/TEACHING**

Teaching methods consist of lectures, seminars in small groups, written tests, independent practical work in laboratory with moulds.

## **6. ASSESSMENT METHODS**

Knowledge of the students is assessed during a term on summary basis (practical skills and results of tests), at the end of the course (3<sup>rd</sup> study year) in the exam both are taken into consideration oral answer and work with II class cavity.

## **7. STRENGTHS**

1. Training takes place in small groups in a well-equipped preclinical laboratory on molds.
2. Modern materials and instruments are used for training

## **8. WEAKNESSES**

1. Certain difficulties in training if more than 8 students comprise a group
2. Shortness of finances for the necessary materials

## **9. INNOVATIONS AND BEST PRACTICES**

1. Small groups
2. Students use modern materials and instruments
3. Students have the latest literature at their disposal

## **10. PLANS FOR FUTURE CHANGES**

1. To improve financial situation
2. More integration with the clinical course.

## **11.2. PRECLINICAL ENDODONTICS**

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### **11.3. PATHOLOGY OF DENTAL HARD TISSUE**

**NAME: Rūta Rastiņa, docent., Dr.Med.Sc.**

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#### **1. INTRODUCTION**

The course of Pathology of Dental Hard Tissue (DHT) includes treatment of dental caries as well as that of the congenital pathology of DHT - preparation of cavities and their filling.

The course of Pathology of DHT is included in the discipline of Therapeutical Stomatology. It follows the course of dental anatomy and training on moulds and is a logic continuation of them in clinic.

Tuition starts in the III year and proceeds up to the 5<sup>th</sup> year, including, increasingly integrating this course with corresponding other dental courses (prothesing, endodontics) as well as increasing students` knowledge and responsibility for comprehensive patient care.

#### **2. PRIMARY AIMS**

To furnish students of knowledge on aetiology, prevention and treatment of cares and pathology of DHT, preparation and filling of cavities applying various materials, methods and auxiliary devices, sterilisation, safety at working place in a clinic, usage of instruments and equipment.

To train the skills to apply the acquired theoretical knowledge in practical work, development these skills under safe supervision of highly qualified and enthusiastic teachers.

#### **3. MAIN OBJECTIVES**

At the end of the course the student should be able:

- 1) to understand and explain aetiology and pathogenesis of caries and their importance in prevention, follow-up and management of caries.
- 2) To understand and explain aetiology and pathogenesis of pathology of DHT, their prevention and management
- 3) To know and apply methods of examination of DHT
- 4) To diagnose the problem and develop a treatment plan
- 5) To choose and apply proper methods and filling materials
- 6) To undertake responsibility for comprehensive patient care

#### **4. HOURS IN THE CURRICULUM**

Lectures 32 hrs

Practicals 324 hrs

## **5. METHODS OF LEARNING/TEACHING**

Teaching consists of lectures, seminars in small groups, written tests as well as course papers, reviews of literature, presentation of clinical cases and supervised clinical work.

## **6. ASSESSMENT METHODS**

Students' knowledge is assessed on both summary bases (practical works and short tests during the term) and marks for certain types of tests (tests, course papers, essays, exams).

Teachers, assessing each practical work give marks for practicals. Students get a summary mark that includes clinical skills, knowledge and professional attitude.

Written tests take place systematically within the period of the term.

A teacher responsible for the group evaluates tests. Several teachers of the department evaluate course papers and essays. The best works are promoted for the Student Scientific Conference.

In the 4<sup>th</sup> year students take an examination in the Course of Pathology of DHT, including questions from the topics of previous courses.

## **7. STRENGTHS**

1. Training takes place in small groups in a well equipped dental clinic
2. Students are trained to work in pairs thus increasing mastering of effective control of infection as well as knowledge types of pair work in dentistry

## **8. WEAKNESSES**

1. Changes in the programme do not enable to introduce routine methods that can be elaborated thoroughly and observed every year
2. Shortness of finances to acquire all the necessary materials
3. Lack of co-ordination between preclinical, clinical and other dental disciplines

## **9. INNOVATIONS AND BEST PRACTICES**

Innovations and best practices

- introduction of the course in integrated training programme
- supply of the library with the latest professional literature

## **10. PLANS FOR FUTURE CHANGES**

Closer integration with all dental disciplines.

## **11.4. ENDODONTICS**

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## **1. INTRODUCTION**

Endodontology studies the form, function and health of injuries to and diseases of the dental pulp and periapical region, their prevention and treatment. Endodontic treatment includes procedures that are designed to maintain the health of the pulp. When the pulp is diseased, the treatment is aimed at preserving normal radicular tissues. When disease has spread to the periradicular tissues, treatment is aimed at restoring them to health. The teaching of endodontology in LMA is divided between the Preclinical course and Clinical course.

## **2. PRIMARY AIMS**

1. provide knowledge of the development, structure and form of healthy dental hard and soft tissues
2. provide knowledge of disease processes within dental pulp and periapical tissues. Develop clinical skills that will allow students to undertake endodontic treatment of predictable quality on graduation.

## **3. MAIN OBJECTIVES**

The objectives of Endodontic course are to:

1. Describe the embryology of dental hard tissues and the pulp
2. Describe the structure and function of the dental hard tissues and the pulp
3. Describe the aethiology, epidemiology and diagnosis of diseases of the pulp and periapical tissues
4. Provide experience in the examination of patients and the diagnosis of pulp and periapical tissues
5. Provide instruction and experience of endodontic treatment and evaluation treatment quality and prognosis

## **4. HOURS IN THE CURRICULUM**

Preclinical Endodontics:

Lectures 10 hrs

Practical work 15 hrs

Clinical Endodontics:

Lectures 36 hrs

Practical work 136 hrs

## **5. METHODS OF LEARNING/TEACHING**

Methods of learning include lectures, seminars and practical work. In preclinical course students have to work on extracted teeth and complete two one rooted and two multirouted teeth. In clinical course everyone has to complete 9 root canals, practical instructions of radiographic techniques, processing and assurance and interpretation.

## **6. ASSESSMENT METHODS**

Students record book Assessment



Every clinical case assessment by faculty  
Theoretical exam at the end of the course

## 7. STRENGTHS

The strengths of the course lie on well-established clinical practice.  
Enthusiastic teachers.

## 8. WEAKNESSES

Lack of library facilities  
Many students have poor English  
Lack of group seminars

## 9. INNOVATION AND BEST PRACTICES

Extensive opportunities for precinical and clinical practice and use special checklist in order to evaluate clinical performance.

## 10. PLANS FOR FUTURE CHANGES

To improve library facilities  
To expect from the students better English knowledge  
To organise seminars to evaluate theoretical knowledge of the students.

## 11.5. PROSTHODONTICS

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## 1. INTRODUCTION

The teaching of prosthodontics is achieved by means of the following courses:

- |  |                                 |
|--|---------------------------------|
| 1. Occlusion   | 3 <sup>rd</sup> year (5.sem)    |
| 2. Biomaterials – prosthodontics                       | 3 <sup>rd</sup> year (5.sem)    |
| 3. Complete dentures                                   | 3 <sup>rd</sup> year (6.sem)    |
| 4. Preparing teeth for fixed partial dentures          | 4 <sup>th</sup> year (7.sem)    |
| 5. Prosthodontics with partial loss of teeth           | 4 <sup>th</sup> year (8.sem)    |
| 6. Dental laboratory techniques                        | 5 <sup>th</sup> year (9.sem)    |
| 7. Clinical operative and prosthetic integrated course | 5 <sup>th</sup> year (9;10.sem) |

## 2. PRIMARY AIMS

The primary aim is to provide a sound basic training for the undergraduate that will enable him/her to carry out prosthetic treatments satisfactorily in general dental practice.

### **3. MAIN OBJECTIVES**

- To be able to evaluate patient's occlusion and function of the stomatognathic system
- To be able to assess and treatment plan appropriately.
- To be able to provide partial, complete and immediate dentures.
- To be able to provide simple fixed prostheses.
- To be able to recognise problems associated with implant retained prostheses
- To be able to advise patients on the care of their prostheses
- To be able to maintain and manage the repair of prostheses

### **4. HOURS IN THE CURRICULUM**

- 3<sup>rd</sup> year 236 – practice  
68 – lectures
- 4<sup>th</sup> year 204 – practice  
68 – lectures
- 5<sup>th</sup> year 234 – practice  
30 – lectures

### **5. METHOD OF LEARNING / TEACHING**

- Laboratory instruction
- Laboratory technical work
- Lectures
- Seminars
- Clinical demonstrations
- Videos
- Tooth preparation on phantoms
- Clinical practice

### **6. ASSESSMENT METHODS**

- Academic ability – Questions in professional examinations, class tests, assessed projects.
- Practical skill – laboratory exercises, clinical work.
- Professional attitude – subjective

### **7. STRENGTHS**

- Traditional course with extensive clinical experience.

### **8. WEAKNESSES**

- Insufficient preclinical practice due to lack of technical provision.
- Insufficient theory acquisition of students due to difficulties of access to wide literature exposure.

### **9. INNOVATIONS AND BEST PRACTICES**

- The new curriculum will provide integrated teaching in a single subject area.

## **10. PLANS FOR FUTURE CHANGES**

To develop preclinical course to perfect.

To make clinical practice according to lecture material including the latest technologies

## **VISITOR'S COMMENTS**

# **SECTION 12**

## **PERIODONTOLOGY**

## **12.1. PERIODONTOLOGY**

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### **1. INTRODUCTION**

The course of Periodontology takes place in the Department of Therapeutical Stomatology and lasts for 2 semesters in the 4<sup>th</sup> year of studies. To master the course students must have preliminary knowledge in

- hygiene of oral cavity and prevention
- microbiology
- anatomy and physiology
- oral pathology
- immunology

### **2. PRIMARY AIMS**

To furnish students of knowledge of structure, functions and peculiarities of occlusion as well as dental and systemic diseases related to it. To teach assessment of introductions in making diagnosis, choice of treatment methods and skills to use them in practical clinical work.

### **3. MAIN OBJECTIVES**

1. To understand the main causes and disease promoting factors of the diseases of dental supportive tissue
2. To master methods of examination of periodontium and apply them in diagnosis
3. To know the general principles in treatment planning and consequence of treatment methods in case of periodontal diseases
4. To master methods of basic treatment of periodontal diseases, the necessary instruments and technique of their application
5. To evaluate treatment results of periodontal diseases and their relation to choice of other treatment methods in restoring health of the oral cavity
6. To obtain theoretical knowledge and practical skills in:
  - Anatomy, histology and physiology of periodontium
  - Epidemiology of periodontal diseases
  - Oral cavity as an ecological system
  - Aetiology and pathogenesis of periodontal diseases
  - Bacterial plaque - the main cause of inflammatory periodontal diseases. Factors promoting periodontal diseases
  - Methods of examination to be used for making the diagnosis of periodontal diseases
  - Classification of periodontal diseases. Gingivitis and periodontitis; their clinical and x-ray characteristics and differential diagnosis
  - Prognosis of periodontal diseases
  - Occlusal trauma

- Planning of treatment of periodontal diseases
- Treatment of acute conditions
- Stages of treatment:
  - basic treatment
  - corrective treatment
- supportive treatment
- Influence of general diseases on periodontum. Peculiarities of treatment of periodontal pathology in case of general illness
- Evaluation of treatment results. Quality criteria in periodontology

#### **4. HOURS IN THE CURRICULUM**

Lectures 34 hrs

Practicals and seminars 102 hrs

#### **5. METHODS OF LEARNING/ TEACHING**

The course consists of lectures, seminars in small groups, preclinical practicals with models (moulds) to acquire technique of usage of instruments, clinical work with patients, presentation of case histories in student groups, elaboration of project works and review of literature.

#### **6. ASSESSMENT METHODS**

Skills in using instruments on models are evaluated, as well as practical skills in examination of periodont and in work with patients are assessed.

Theoretical knowledge is evaluated by tests during a semester and at the end of it. At the end of the course students must pass a written test and their project work is assessed.

#### **7. STRENGTHS**

1. Clinical work and seminars in small groups, possibility to devote enough time to each student
2. Technique of instrument using is mastered on models
3. Enthusiastic teachers, trying to improve training

#### **8. WEAKNESSES**

1. Shortage of textbooks and periodicals in Periodontology in the AML library
2. Within the period of the course not always students can follow up all the stages of treatment plan designed for the patient
3. Practical in surgical treatment of periodont are not possible on models

#### **9. INNOVATIONS AND BEST PRACTICES**

One of the most significant tasks is elaboration of a project work, which includes review of literature and obtaining presentation skills in student groups

## **10. PLANS FOR FUTURE CHANGES**

1. To improve collaboration with courses in Microbiology and Immunology and possibilities in patient examination
2. Integration with 5<sup>th</sup> year course in complex treatment of periodont.

## **VISITOR'S COMMENTS**

## **SECTION 13**

# **ORAL AND MAXILLOFACIAL SURGERY RADIOGRAPHY AND RADIOLOGY**

**13.1. SURGICAL ANATOMY AND  
OPERATIONS**

**13.2. ORAL AND MAXILLOFACIAL  
SURGERY**

**13.3. ROENTGENOLOGY - RADIOLOGY**



### **13.1. SURGICAL ANATOMY AND OPERATIONS**

### **13.2. ORAL AND MAXILLOFACIAL SURGERY**

### **13.3. ROENTGENOLOGY - RADIOLOGY**

#### **13.1. SURGICAL ANATOMY AND OPERATIONS**

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#### **1. INTRODUCTION**

The undergraduate course in Surgical anatomy and operations is taught one semester of the 2<sup>nd</sup> year and is introduced to provide knowledge in surgical anatomy of oral and maxillofacial region, instruments and methods of more common operations to develop a pre – clinical manual dexterity.

#### **2. PRIMARY AIMS**

After this course student must know the surgical anatomy and operations on teeth, jaws and soft tissue of oro – maxillofacial region in norma and cases of inflammation, injuries, pathology of salivary glands, temporomandibular joint, lymphatic nodes and vessels; clinical aspects of tissue reparative regeneration; choice and use of instruments. Methods of dental anaesthesia on phantom.

#### **3. MAIN OBJECTIVES**

The main objectives of this pre – clinical course of Oral and Maxillofacial Surgery includes: 1) Anatomical basis, instruments and methods of dental anaesthesia; 2) Surgical anatomy of teeth and jaws; instruments and methods for teeth removal; 3) Reparative regeneration of various tissue in oro – maxillofacial region; 4) Surgical anatomy and treatment methods of wounds and fractures; 5) Surgical anatomy and approaches for treatment of odontogenic and another inflammations; 6) Surgical anatomy, common procedures and operations on tempromandibular joint; 7) Surgical anatomy, approaches and operations on vessels, lymphatic nodes and salivary glands.

#### **4. HOURS IN THE CURRICULUM**

The student spend for this course in the department of Oral and Maxillofacial Surgery totally 51 hour in the period of one semester included – lectures 17 hours, laboratory – 28 hours, seminars – 6 hours.

#### **5. METHODS AND LEARNING/ TEACHING**

Teaching is by lecture, laboratory works on anatomical models, phantoms, instruments and materials been used in Oral and Maxillofacial Surgery.



## **6. ASSESSMENT METHODS**

During the course there are three tutorials and writer examination at the end of course.

## **7. STRENGTHS**

This preclinical course as a link between basic theoretical courses and clinical part in Oral and Maxillofacial Surgery allows to arrange knowledge's in Anatomy and other basic sciences with needs of surgical techniques and introduces in first manual skills in choice and use of surgical instruments, equipment and materials.

## **8. WEAKNESS**

A weakness in this course relates not enough didactic materials and equipment as phantoms and computers.

## **9. PLANS FOR FUTURE CHANGES**

There must be further development of equipment and sets of instruments and materials. The computer methods for assessment of knowledge also planned to introduce in 2001. /2002. academic year.

## **13.2. ORAL AND MAXILLOFACIAL SURGERY**

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### **1. INTRODUCTION**

The undergraduate course in Oral and Maxillofacial surgery extends over 3 years of the course includes dental anaesthesiology and emergencies in dental office, dento – alveolar surgery, inflammatory diseases and injuries in oro – facial region, diseases of salivary glands, maxillary sinus and TMJ, tumours diseases, orthognathic surgery, basic principles of plastic and reconstructive surgery.

### **2. PRIMARY AIMS**

The primary aims of the course are based on the documents issued by the Latvian Dental Association to regulate the certification in general dentistry and have been developed together with the Latvian Association of Oral and Maxillofacial Surgeons and Baltic Association for Maxillofacial and Plastic Surgery. The new graduate should be able to do examination, set up diagnosis, consulting with another specialists, evaluation of general health situation, to choice out – patient or hospital treatment, to carry out common diagnostic and surgical procedures and operations of oral surgery, to draw case report, first aid help in injuries and another emergency cases.

### 3. MAIN OBJECTIVES

The main objectives of the course are to develop the theoretical and practical skills of the undergraduate in a supportive environment. The undergraduate will have been taught the theoretical aspects of the full range of Oral and Maxillofacial Surgery as it is currently practised which includes:

1) Introduction to speciality of oral and maxillofacial surgery, organisation of care, patient's examination, documentation, 2) Basic principles of surgery, 3) Pain and anaesthesia, 4) Emergency cases in dentistry, 5) Exodontia, 6) Impacted teeth, 7) Preprosthetic surgery, 8) Odontogenic and other inflammatory diseases, 9) Cysts of jaws and soft tissue, 10) Maxillofacial injuries, 11) Diseases and injuries of temporomandibular joint, 12) Neurostomatology, 13) Tumorous diseases, 14) Orthognatic surgery, 15) Diseases of salivary glands, 16) Basic principles of plastic and reconstructive surgery.

### 4. HOURS IN THE CURRICULUM

The students spend in the Department of Oral and Maxillofacial Surgery totally 528 hours in the period of three academic years included lectures - 92 h; practical training, seminars – 436 h and research project.

### 5. METHODS OF LEARNING/TEACHING

Formal didactic teaching is by lecture, seminar and practical sessions as outlined in the timetable. Selfdirected learning is encouraged and formal project work is undertaken. The students receive clinical instruction in practical exodontia in which they receive closely – supervised teaching of intra- and transalveolar extraction; *local anaesthesia clinic*, where they will progress from direct close supervision of routine exodontia to performing transalveolar extractions under local anaesthesia (in this setting they will also see procedures performed under sedation); the *Consultant clinics*, where students will be involved in the diagnosis and management of patients referred for routine dentoalveolar surgery (i.e. exodontia, dentoalveolar surgery, implant surgery and surgical- endodontics & orthodontics) but also where they see patients with facial trauma and head and neck malignancy and the *general anaesthesia facility* where students undertake supervised surgery.

### 6. ASSESSMENT METHODS

During the course the students are periodically assessed to established Institutional protocols on Academic ability, Manual Ability and professional Attitude. Additionally in this Department, the students have two formal examinations. The first examination is timetabled in the spring of the third year (at the end of anaesthesia and dentoalveolar surgery theoretical teaching). The second assessment is in the spring of fourth year and includes inflammation and injuries. The assessment and teaching of the students is managed by means of bi monthly department teachers' meetings (chaired by the Head of Department). In the fifth course students passes Final State examination involving the Department of Oral and Maxillofacial Surgery in: 1) Discussion of research projects, 2) Accumulated examination consisting of discussion of academic case report, 3) Integrated examination of practical skills together with Department of Conservative Dentistry and Prosthodontics, 4) Multiple choice written examination consisting of 200 questions, 5) Final oral examination for the full theoretical course of Oral and Maxillofacial Surgery.

## **7. STRENGTHS**

The strengths of the course include a team of contemporary trained teachers, integrated Oral and Maxillofacial surgery within the setting of the Institute of Stomatology, Latvian Dental Center and Latvian Oncological Center – Department of Head Neck tumours. The students can see and experience the whole range of Oral and Maxillofacial Surgery (From routine exodontia to patients undergoing major resections for head and neck cancer). Additionally the senior members of staff in the department have research and publications records involving also students. The Department is therefore, at the forefront of developments in the science and practice of oral and maxillofacial surgery and students benefit considerably from this.

## **8. WEAKNESSES**

A weaknesses in the current course relates to the not enough level of intergration with in oral pathology. This weakness will be corrected with the new curriculum proposed for introduction in 2001/2002 academic year which includes taking of biopsies, preparation of samples and their evaluation to get full clinical and pathological diagnosis and treatment planning.

## **9. INNOVATIONS AND BEST PRACTICE**

Development of clinical basis in Institute of Stomatology included general anaesthesia and sedation for out – patients; day – case operations; increasing of operation for dental implants and another preprosthetic procedures; foundation of orthognatic group able to provide contemporary planning and orthognatic surgery.

## **10. PLANS FOR FUTURE CHANGES**

The efficiency of teaching will be improved via the inclusion of videoconferencing between operation rooms and auditoriums and seminar classes and increased participation of students in research projects.

### **13.3. ROENTGENOLOGY - RADIOLOGY**

**NAME: Mara Sungaile, assistant, Head of the course**

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## **1. INTRODUCTION**

The course is designed as a professional study programme in roentgenology and radiology. The part of general Roentgenology takes place in the Department of Roentgenology and Radiology at 13 Pilsoņu Street. Stomatoroentgenology takes place in the x-ray office at the Stomatology Institute of AML. To start the course students must have preliminary knowledge in Physics and maxillo-facial and head anatomy.

## 2. PRIMARY AIMS

- 1) To furnish students with knowledge of general roentgenology and radiology as well as train skills for diagnosing of different pathologies in roentgenograms.
- 2) To furnish students with knowledge in stomatoroentgenology, to train practical skills in different types of intraoral examination and in assessment of pathological change in different roentgenograms of faciomaxillary area.

## 3. MAIN OBJECTIVES

- To get acquainted with basic roentgenology, protective measure, principles of dosimetry
- To get acquainted with basic principles of roentgenological examination of skeleton and roentgenoanatomy
- To diagnose pathological changes in roentgenograms of the respiratory system and gastrointestinal tract
- To diagnose traumata and skeletal diseases in roentgenograms. To get acquainted with radioisotope diagnosis and scintigraphy
- To master the technical performance of the following methods:
  - bisector
  - parallel
  - interproximal
  - occlusal
- To assess to acquired above mentioned Rtg - grams:
  - quality
  - diagnostic information
  - pathologic changes
- To get acquainted with films used in stomatoroentgenology, selection, processing.
- To learn radiation to vital organs.
- To get acquainted with the main extraoral methods of Rtg examination and their diagnostic information:
  - ramus mandibulae
  - corpus mandibulae
  - Rtg - gr of the head profile
  - Rtg - gr of AP of the head
  - Rtg - gr of nasal sinuses
  - Rtg - gr of the temporomandibular point
  - teleroentgenography
  - panoramic roentgenography.
- To acquire general information on the following specific methods:
  - computertomography
  - method of magnetic resonance
  - angiography
- To be aware of roentgenologic diagnosis of different developmental disturbances, traumata and pathological processes

## 4. HOURS OF THE CURRICULUM

- General Roentgenology-Radiology:
  - lectures 10 hrs
  - practicals 15 hrs

Stomatoroentgenology:  
lectures 34 hrs  
practicals, seminars 71 hrs

## **5. METHODS OF LEARNING/ TEACHING**

Teaching/ learning is performed in groups consisting of 8 students, lectures are delivered to the entire student course within the 2<sup>nd</sup> and 4<sup>th</sup> study year.

Theoretical part of the course corresponds to practical activities:

- techniques of x-raying
- procession of films
- interpretation

## **6. ASSESSMENT MENTHODS**

To check students' knowledge the following tests are performed:

- in the 3<sup>rd</sup> semester in technical performance of intraoral methods
- in the 6<sup>th</sup> semester in dental- and jaw roentgenanatomy
- in the 8<sup>th</sup> semester in technical performance of the methods
- in the 8<sup>th</sup> semester roentgenanatomy of the head, face and jaws
- final practical examination in intraoral roentgenography and theoretical examination in the 8<sup>th</sup> semester

## **7. STRENGTHS**

The strengths of the course lie in the range of topics covered.

1. Students obtain knowledge in general roentgenology and radiology
2. Students receive information on preventive measures
3. Students acquire practical skills in technical performance of intraoral methods
4. Students acquire skills in interpretation of intraoral and extraoral roentgenograms
5. Students learn how to diagnose pathologic processes roentgenologically

## **8. WEAKNESSES**

Insufficient financial resources

## **9. INNOVATION AND BEST PRACTICES**

The course has been adapted for specific needs of the students of Stomatology faculty. Accomplishing the course, students can work independently applying all methods of intraoral roentgenological examination necessary in dentistry.

## **10. PLANS FOR FUTURE CHANGES**

More integration of teaching maxillofacial roentgenology with the clinical course in Surgical Stomatology and Orthodontics.

## **VISITOR'S COMMENTS**

## **SECTION 14**

### **ORAL MEDICINE AND ORAL PATHOLOGY**

#### **14.1. ORAL MEDICINE**

#### **14.2. ORAL PATHOLOGY**





Practical classes 340 hours

## **5. METHODS OF LEARNING/ TEACHING**

A structured lecture course with appropriate practical classes, predominantly based on self-work with literature. Writing a short tests and final scientific paper as article.

## **5. ASSESSMENT METHODS**

- 1) A short written essays.
- 2) Presentation and discussion of scientific articles.

## **7. STRENGTHS**

Course is organized on the base of materials obtained in research work of institute of dentistry. The practical result of the research of members of staff is included.

## **8. WEAKNESSES**

Luck of developed scientific students research laboratory with practical classes, animal models and clinical laboratory.

## **9. INNOVATION AND BEST PRACTICES**

Integration of general physiology, biochemistry and microbiology as oral medicine that makes students training generally based.

## **10. PLANS FOR FUTURE CHANGES**

In the new curriculum, it is planned to integrate program of biomaterial sciences as basic solving source of the dentists practice.

### **14.1.2. ORAL DIAGNOSTICS**

**NAME: Docent Aldis Rozenblats**

**ADDRESS: 20 Dzirciema str., Riga, LV – 1007, Ph. 2 451814, Fax 2 455320**

#### **1. INTRODUCTION**

This is integrated course, covering essential topics in studies of basic principles collecting anamnesis, examination of patient and formation of treatment planning that is held in the V semester of the third year. It is beginning of training students to connect basic principles of several diagnostic methods particularly from dentistry together with general medicine to evaluate information that leads to adequate treatment plan.

## **2. PRIMARY AIMS**

To give the dental students an understanding of different symptoms and signs of several pathology that must be checked for examination and adequate treatment plan formation. Students got acquainted with possible knowledge about preparation of information about patient that helps to create better resolution.

## **3. MAIN OBJECTIVES**

- 1) To give dental students an understanding of basic principles of anamnesis collection and record writing.
- 2) To give dental students an understanding of basic clinical examination methods and its place in work of dentist.
- 3) To provide dental students with understanding of supplemental methods of testing health and making common conclusion.
- 4) To introduce students to mouth rehabilitation that needs wide study of patients' personality and real objective needs and real possibilities of dental methods.

## **4. HOURS IN THE CURRICULUM**

Lectures           16 hours  
Practical classes    256 hours

## **5. METHODS OF LEARNING/ TEACHING**

A structured lecture course with appropriate practical classes, predominantly based on work in oral surgery. Writing a short tests and seminars on x-ray and models for training in treatment planning.

## **6. ASSESSMENT METHODS**

- 1) A short written essays.
- 2) Presentation of treatment plan based on task to prepare investigation and conclusion making for case from slides and models.

## **7. STRENGTHS**

Courses organized on the basis of the real oral surgery patients and combined together with several students' knowledge from previous courses. Students' parts of trainings spend in immunology department.

## **8. WEAKNESSES**

Lack of developed laboratory that gives for students' possibility of knowledge application.

## **9. INNOVATION AND BEST PRACTICES**

Integration of mouth diseases teaching that is thought in conservative dentistry studies and experience work in oncology department.

## **10. PLANS FOR FUTURE CHANGES**

In the new curriculum, it is planned to integrate program of diagnosis with practical testing methods, computer tomography, NMR, immunological tests, blood tests, and evaluation of diets.

### **14.1.3. FORENSIC MEDICINE AND FORENSIC ODONTOLOGY**

**NAME: Dr O. Teteris**

**ADDRESS: Riga, Hipokrātu 2; Latvia, Phone: 539509**

#### **1. INTRODUCTION**

Forensic Medicine ( FM ) and Forensic Odontology ( FO ) is taught in the 4<sup>th</sup> year of the Dental Course as part of a programme. FM and FO is the branch of medicine which provides the use of medical and biological knowledge and examination method for the solution of legal issues determined by legislative norms.

FM and FO includes: forensic pathology and FO together with FM histology, clinical FM, forensic toxicology, forensic biology, medical criminalistics.

Students must pass the examination in order to continue with their studies. The course ensures that students in Medical Academy of Latvia qualify with a good understanding FM and FO.

#### **2. PRIMARY AIMS**

To give Dental Students a grounding in the pathomorphology of traumas, poisoning, asphyxion and sudden death, and FM together with FO.

#### **3. MAIN OBJECTIVES**

To understand the importance of forensic pathology as a grounding of pathomorphology of violent death.

To understand the importance facial and traumas accompanied from traumas.

To understand the clinical investigation of facial trauma as a part of FM expert investigation.

To acquire practical skills of identification of personalities by stomatological status.

To get a grounding in the procedural principles and organization of the coroner's inquest.

#### **4. HOURS IN THE CURRICULUM**

Students of Stomatology department during the 4<sup>th</sup> year master basis of general

FM and FO, carry out practical task in identification of a person on the basis of stomatologic status. Within the programme of studies for the 4<sup>th</sup> year students of Stomatology Faculty studying includes 16 hours of practical task and 10 hours of lectures in the following themes: pathomorphology of violent death in cases of traumas, poisoning, asphyxion; doctors actions when examining corpse; solution of FM issues in different kinds of inquest of alive persons; in courts trials

Students carry out coroner's inquests and learn how to formulate conclusions of experts.

## **5. METHOD OF LEARNING/TEACHING**

The curriculum is divided into 10 topics. Lectures are carried out at Lecture hall of institution of Stomatology. Practical studies take place in the State Coroners Inquest Centre, FM Chair.

## **6. ASSESSMENT METHODS**

Students are formally examined at the end of the Autumn term as part of 4<sup>th</sup> year studies for theoretical course. Students answer a multiple – choice paper in the practical studies. The examination is overseen by Dean of Stomatology Faculty.

## **7. STRENGTHS**

The course has well – defined aims and the core material is clearly presented to students in a course programme. Students may get a good connections between FO theory and practice in the autopsy hall and at the hall of forensic criminalities and anthropology.

## **8. WEAKNESSES**

The course of FO don't include great number of identifications by stomatologic status with X - ray examination and composition.

## **9. INNOVATIONS AND BEST PRACTICES**

Core materials is clearly presented to students in a course programme  
Course is planned and delivered in close association with needs of Dental Students  
Course material illustrated with forensic medical cases relevant to dentistry  
Bedside clinical teaching flexible and geared to needs of individual groups of students

## **10. PLANS FOR FUTURE CHANGES**

Course booklet will be revised and updated next year  
Greater integration with radiology teaching teaching .

## **14.2. ORAL PATHOLOGY**

### **14.2.1. ORAL MORPHOLOGY**

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## **1. INTRODUCTION**

The course of General Pathology and Oral Morphology for the students of Stomatological Faculty of the Medical Academy of Latvia/ Riga Stradin's University incorporates subdivision of general pathology and oral pathology, the last subject concentrated on morphology of the oral cavity, jaws and teeth. The general pathology course is included in the study program of the second study year, second (Spring) semester. Oral pathology course takes place during the third study year, first (Autumn) semester. The full course culminates in specified professional examination. The Course Director is the Professor of pathology, who is experienced both in general surgical pathology and oral pathology.

## **2. PRIMARY AIMS**

To offer the basic knowledge in the etiology and pathogenesis of general pathological processes in the level of organs as well as tissues and cells.

On the basis of the furnished information and skills to introduce the students with the main morphological processes and diseases concerning the oral cavity, jaws and teeth.

## **3. MAIN OBJECTIVES**

To gain an adequate understanding of the basics in pathological processes, their etiology, pathogenesis, outcomes.

To be able to recognise macroscopic changes in pathologically changed tissues and organs.

To recognise disease-related changes in morphology within the whole organism, organ systems, organs, tissues and cells and to explain the cause and development of functional disturbances.

During the course the students will be introduced with the specific pathomorphology of different diseases involving the oral cavity.

The students will develop experience in recognition and evaluation of gross and microscopic characteristics of pathological processes involving the soft and bony tissue of oral cavity and jaws.

To stimulate the ability to explain the interconnection between general pathological processes and diseases as well as specific nosologic entities involving the oral cavity; to underline the practical importance of biopsy and surgical specimens in diagnostics.

## **4. HOURS IN THE CURRICULUM**

The General Pathology subdivision of the course involves 51 academic hour of laboratory/practical training and 17 academic lecture hours. The Oral Morphology subdivision includes 32 academic hours of lecture time and 32 academic hours of laboratory/practical work.

## **5. METHODS OF LEARNING/TEACHING**

General pathology and oral morphology are regarded as visual subjects and the teaching wherever possible involves practical experience by the students. The course is based on theoretical knowledge provided at the lectures with following practice in laboratory and autopsy room. The students work in groups discussing specific subjects with emphasis on the relevant theory and its clinical implications in close connection with the analysis of microspecimens. The small size of study groups during the practical training guarantee good contact with the teacher in the theoretical discussion showing up the gross and microscopic peculiarities.

## **6. ASSESSMENT METHODS**

During every laboratory training the knowledge of students about the actual themes as shown during discussion or testing in written are evaluated according to 10 degree system. The examination about each subdivision includes practical test with microspecimens and gross specimens. This is followed by oral theoretical testing using standard set of questions. The subdivision of general pathology culminates in examination, but subdivision of oral pathology – in differentiated testing.

## **7. STRENGTHS**

Staff who have written major training appliances in general pathology and oral morphology. Rich collection of of microscopical specimens and macropreparations about different human diseases and oral pathology for practical tuition.

Series of slides, placards and schemes made bu lecturers.

The last discoveries in basic science, general pathology and oral morphology are instantly implemented in the study course.

The collaboration with clinical dentists ensures the exchange of information about the news in stomatology.

## **8. WEAKNESSES**

Difficulties in the integration of the newest findings in the field of basic science, general pathology and oral morphology in the training process.

The collection of microspecimens necessitate further expansion in the field of jaw, teeth and salivary gland pathology.

## **9. INNOVATIONS AND BEST PRACTICES**

New training appliances for dental students in general pathology and oral pathology in 2000. Integrated teaching of the oral morphology course across the clinical divide.Improvement of student questionnaires. Project in oral morphology for third year students.

## **10. PLANS FOR FUTURE CHANGES**

All curriculum is accepted by the Dean of Dentistry.

### **14.2.2. DISEASES OF ORAL MUSCOSA**

**NAME: Dr., prof. I. Cema**

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#### **1. INTRODUCTION**

The course of oral mucosa diseases includes the teaching about structure and functions of normal oral mucosa, the full spectrum of oral mucosal diseases, orofacial pain, diseases of salivary glands, relationship of oral conditions to systematic disorders. Teaching and clinical experience is provided during the 5<sup>th</sup> year of studys.

## **2. PRIMARY AIMS**

1. To give dental students an understanding of aethyological factors, underlying mechanisms, clinical course, methods of investigations and basic management of oral mucosal diseases.
2. To provide sufficient knowledge to recognise the relationship of oral and perioral tissue manifestations to systematic diseases.

## **3. MAIN OBJECTIVES**

1. To give dental students an understanding of the range (classification) of diseases which may present in the oral cavity and perioral region. Aging related alterations.
2. Ability to collect history, to carry out clinical examination and use correct terminology.
3. Ability to interpret histopathological, haematological, microbiological investigations and use it to put correct diagnosis
4. Understanding of the aethyological factors, clinical presentation, investigation, differential diagnosis and management of oral ulcerations.
5. Understanding of the clinical presentation, investigation, management of viral and candidal infections in the oro-facial region.
6. Understanding of the vesiculo- bullous disorders, including oral lichen planus.
7. Understanding of the clinical presentation, proposed aetiological factors, investigation, management of premalignant lesions and squamous cell carcinoma in the oral cavity.
8. Recognition of neoplastic symptoms and syndroms in the oral cavity and perioral region.
9. Recognise clinical presentation of changes on the tongue and lips.  
Differentialdiagnosis.
10. Recognition of allergic reactions and drugs causing adverse effects. Oral manifestation of diseases of the blood, blood forming organs, endocrine and metabolic disorders, nutritional disorders.Oral manifestations of the human immunodeficiency virus disease.
11. Understanding of the clinical presentation, investigation, managment and differentialdiagnosis of the salivary glands disorders.
12. Recognition of psychological disorders presently as oro-facial disease.
13. Select adequate method of treatment and put it in clinical practice.

## **4. HOURS IN THE CURRICULUM**

The course consists of 58 hours, including 26 hours of lectures and 32 hours laboratory (seminars 8 hours)

## **5. METHODS OF LEARNING/TEACHING**

The teaching is provided in the form of 13 lectures, of 2 hours duration in the 5<sup>th</sup> year of study. During lectures the visual materials are provided in the form of Multimedia and slides on the screen. The practical course (2,5 hours laboratory) is provided in the form of tests and seminars. The main teaching places are in the Stomatological institute and Oncological centre. Students must be able answer the test questions according to lecture material. Students are shown the correct methods of taking cytological and biopsy samples from clinically altered



places on the mucosa and skin for cytological and histological investigations. Dental students take active part by collecting history and clinical examination.

## **6. ASSESSMENT METHODS**

The class examination consist of test questions and slides (20) for visual recognition of disorders. The final examination is in the form of multichoice test as a part of state examination in Oral- Maxillofacial surgery.

## **7. STRENGTHS**

Possibility of dental students to take part during consultations in Oncological Centre (large number of patients with wide case mix)

## **8. WEAKNESSES**

The planed teaching time of oral mucosal diseases for dental students classes is different from the time foreseen for patient consultations with mucosal disorders (1x in the week in Stomatological Institute)

## **9. INNOVATIONS AND BEST PRACTICES**

Possibility to use Multimedia during lecture

## **10. PLANS FOR FUTURE CHANGES**

1. Computerised methods for assessment (tests, visual materials) are planned to introduce in 2000/2001. academic year.
2. The handing of lecture materials prior lecture is planned.
3. Co-ordinate the time foreseen for patient consultations to planed teaching time of oral mucosal diseases for dental students.
4. Providing of the morphological material during lectures and laboratory with the help of computerised microscope.
5. We are planning to use specialised workstation of optical microscope, TV camera and computer for digital image analyses of morphological samples
6. We are planning oral mucosal disorders as separate state examination in 2001/2002. academic year.

### **14.2.3. ORAL MANIFESTATIONS OF SYSTEMIC DISEASES**

**NAME: Docent Aldis Rozenblats**

**ADDRESS: 20 Dzirciema str., Riga, LV – 1007, Ph. 2 451814**

## **1. INTRODUCTION**

This integrated course, covering essential topics in internal medicine for students continuing their clinical studies is held in the VIII semester of fourth year. It follows on from the course of the internal medicine.



## **2. PRIMARY AIMS**

To give the dental students an understanding of connection and underline mechanisms of general pathology that effects oral diseases which is essential for diagnosis and for development of rational treatment and preventive programs.

## **3. MAIN OBJECTIVES**

- 1) To give dental students an understanding of the range of internal diseases this may present in the oral cavity and facial region.
- 2) To give dental students an understanding of general ethiology, pathogenesis and clinical factors, pathological changes and prognosis of common internal diseases and manifestation in mouth.
- 3) To provide dental students with an understanding of the nature of general illnesses that may manifestate as oral lesions.
- 4) Introduce students in thinking about oral pathology as reflection of general health (immunology, avitaminosis, etc.).

## **4. HOURS IN THE CURRICULUM**

Lectures           12 hours  
Practical classes       272 hours

## **5. METHODS OF LEARNING/ TEACHING**

A structured and integrated lecture course with appropriate practical classes, predominately hystopathology based self-assessment oral pathology MCQ questions are available on a copy.

## **6. ASSESSMENT METHODS**

- 1) A short MCQ held at the end of each practical theme.
- 2) Short answer written examination.

## **7. STRENGTHS**

Course thought by experienced stuff, practising the disciplines of oral pathology and oral surgery. Integration of oral pathology and general pathology teaching.

## **8. WEAKNESSES**

Luck of real practical examination of patients. Not all topics covered with morphological specimens and course is thought only on the base of slides.

## **9. INNOVATION AND BEST PRACTICES**

Recent introductions in general pathology teaching based on stressing the whole body health.

## **10. PLANS FOR FUTURE CHANGES**

In the new curriculum, it is planned to integrate program of internal medicine as introductory course. Treatment of periodontal diseases might be connected with bone and salivary gland disease to make adequate evaluation.

### **14.2.4. COMPLICATED ORAL PATHOLOGY TREATMENT**

**NAME: Docent Aldis Rozenblats**

**ADDRESS: 20 Dzirciema str., Riga, LV – 1007, Ph. 2 451814**

#### **1. INTRODUCTION**

This integrated course, covering essential topics in studies in dentistry practice as general practitioner for treatment patients with complicated wound or other reason oro-facial skeleton defects is held in the X semester in the fifth year. It is beginning of training students to connect basic principles of several diagnostic and conservative treatment methods for restoration of correct occlusion and several facial tissue defects.

#### **2. PRIMARY AIMS**

To give the dental students an understanding of different conservative methods screening that is possible to use in clinic without surgery and that can more quickly give result of restoration then after surgery. Students got acquainted with possibilities of combination god dental laboratory facilities and quick salvation of the defect compensation after trauma or other reason.

#### **3. MAIN OBJECTIVES**

- 1) To give dental students an understanding of basic conservative treatment principles in orthopaedics.
- 2) To give dental students an understanding of patient needs who suffer from several occlusion or soft tissue defects after being involved in pathological process.
- 3) To provide dental students with understanding of supplemental methods of fixation of hard tissue fragments in addition to methods explained in surgery.
- 4) To introduce students in mouth and facial rehabilitation that needs wide studies of patients' needs and possibility to help them.

#### **4. HOURS IN THE CURRICULUM**

Practical classes      64 hours

#### **5. METHODS OF LEARNING/ TEACHING**

A structured lecture course with appropriate practical classes, predominately based on stuff written materials. Writing a short tests.

## **6. ASSESSMENT METHODS**

- 1) A short written essays.
- 2) Seminars about specific patient needs in the different situations.

## **7. STRENGTHS**

Course is thought by experienced staff practising the oral surgery and prosthodontics. Integration of real situation in the finishing of practical undergraduate teaching.

## **8. WEAKNESSES**

Lack of corporation in clinic, between dental laboratory to have real training.

## **9. INNOVATION AND BEST PRACTICES**

Recent introduction of some special needs from prosthetics department and making the treatment planning as a conclusion of several disciplines.

## **10. PLANS FOR FUTURE CHANGES**

In the new curriculum, it is planned to integrate/to stress the attention of patient oral health to organize the treatment as oral rehabilitation.

## **VISITOR'S COMMENTS**

## **SECTION 15**

# **DENTAL EMERGENCIES AND CARE OF SPECIAL PATIENTS**

### **15.1. INTEGRATED PATIENT CARE**

**(see section 11.5)**

### **15.2. FIRST AID AND EMERGENCIES**

**(see section 8.6., 13.2.)**

### **15.3. CARDIOPULMANORY**

**RESUSCITATION (see section 8.6., 13.2.)**

### **15.4. GEROSTOMATOLOGY**

## **15.4. GEROSTOMATOLOGY**

**NAME: Docent Janis Lasovskis**

**ADDRESS: 20 Dzirciema str., Riga, LV – 1007, Ph. 2 451814**

### **1. INTRODUCTION**

This integrated course, covering essential topics in elderly people oral health held in VII semester of the fourth year. It is beginning of training students to connect basic principles of peculiarities of elderly people tissue morphology and physiology in planning of adequate treatment.

### **2. PRIMARY AIMS**

To give the dental students an understanding of different peculiarities of age changes in mouth region, general health and connection of this in real practice. Students get acquainted with integrated treatment, psychological assessment and work in team with general health providers.

### **3. MAIN OBJECTIVES**

- 1) To give dental students an understanding of changes of mouth tissues in connection with age, the age treatment planning, diet.
- 2) To give dental students an understanding of functional peculiarities of several mouth soft tissues – gingival salivary glands, palate etc.
- 3) To provide dental students with understanding of periodontology in elderly age, peculiarities in root caries, occlusion.
- 4) To introduce students in ambulatory surgery, preprothetic surgery and evaluation of dentures fixation.

### **4. HOURS OF THE CURRICULUM**

Lectures           14 hours  
Practical classes       64 hours

### **5. METHOD OF LEARNING / TEACHING**

A structured lecture course with appropriate practical classes, predominantly based on elderly house inhabitants. Preparing of treatment planning for elderly patients.

### **6. ASSESSMENT METHODS**

- 1) A short written essays.
- 2) Presentation and discussion of cases and treatment plan.

### **7. STRENGTHS**

Courses organized on the base of elderly people clinic and is provided by trained an experienced staff.

## **8. WEAKNESSES**

Lack of treatment facilities integration with conservative dentistry department and work on small-specialized clinic.

## **9. INNOVATION AND BEST PRACTICES**

Integration of general health, diet and hygiene for planning of treatment and rehabilitation of elderly people oral health.

## **10. PLANS FOR FUTURE CHANGES**

In the new curriculum, it is planned to cooperate with some foreign practitioners and making integrated course on the base of oral surgery and conservative dentistry program evaluation.

## **VISITOR'S COMMENTS**



## **SECTION 16**

### **BEHAVIOURAL SCIENCES**

**16.1. INTRODUCTION IN  
STOMATOLOGY**

**16.2. COMPUTER SCIENCES**

**16.3. PHILOSOPHICAL  
ANTHROPOLOGY**

**16.4. ECONOMICS AND  
ENTREPRENEURIAL ACTIVITY**

## **16.1. INTRODUCTION IN STOMATOLOGY**

## **16.2. COMPUTER SCIENCES**

## **16.3. PHILOSOPHICAL ANTHROPOLOGY**

## **16.4. ECONOMICS AND ENTREPRENEURIAL ACTIVITY**

### **16.1. INTRODUCTION IN STOMATOLOGY**

**NAME: prof. Gunars Pakalns**

**ADDRESS: 20 Dzirciema str., Riga, LV – 1007, Ph. 2 451814**

#### **1. INTRODUCTION**

This integrated course covering essential topics studies as higher schools practise is held in the I and II semester of the first year. It is beginning of student training in self-work in theoretical and practical work.

#### **2. PRIMARY AIMS**

To give the dental students understanding of studies practise (work in library, practical laboratory, and preparation for in mouth). Students get acquainted with collecting literature and scientific paper writing.

#### **3. MAIN OBJECTIVES**

- 1) To give dental students an understanding of history of medicine and dentistry in Latvia.
- 2) To give dental students an understanding in scientific achievements in technique, chemistry and its involvement in development in dentistry.
- 3) To provide dental students with understanding of scientific technology and principles of writing articles.
- 4) Practically write first paper in individually chosen subject.

#### **4. HOURS IN THE CURRICULUM**

Lectures	4 hours
Practical classes	36 hours

#### **5. METHODS OF LEARNING/TEACHING**

A structured lecture course with appropriate practical classes predominantly based on self-work with literature. Writing of the scientific article.

#### **6. ASSESSMENT METHODS**

- 1) A short answer written examination.
- 2) Presentation and discussion of scientific article.

## **7. STRENGTHS**

Course is organised on the base of authentic materials of society of dentists and rather good library facilities. Involvement of the dean in the first lecture as introductory manager, who explains rights and duties of students.

## **8. WEAKNESSES**

Lack of short introductory materials from majority of programs, that will be necessary to get familiar during the studies.

## **9. INNOVATION AND BEST PRACTICES**

Recent introduction of self-investigation to several disciplines by interview of teachers and students of elderly courses.

## **10. PLANS FOR FUTURE CHANGES**

In the new curriculum, it is planned to integrate program of some biomaterial sciences as the basic content in course.

## **16.2. COMPUTER SCIENCES**

**NAME: Assoc. Professor Uldis Teibe**

**ADDRESS: Dzirciema street 16, Riga, Latvia LV - 1007, ph. 2 409 171**

### **1. INTRODUCTION**

The Computer science course for dentistry students is taught at the physics department in Latvian Academy of Medicine.

Course is taught in the 2<sup>nd</sup> semester of the first study year.

### **2. PRIMARY AIMS**

The course aims to give the students knowledge and practical abilities in general computer science, specifics of medical and biological information, operation systems, text processing, data analysis packages, spreadsheet solutions, graphical presentation and multimedia techniques, database technologies and Internet.

### **3. MAIN OBJECTIVES**

By the end of the course students should have:

General skills in computer use in study and research

Skills in computer use in practical doctor's work

Presentation techniques related to requirements of study process and research

Abilities to search for information in databases and on Internet

Skills necessary to process research data and present the results

### **4. HOURS IN THE CURRICULUM**

34 hours computer classes, 28 hours directed activity of students.

## **5. METHODS OF LEARNING /TEACHING**

The basic study method is practical work in computer classes. Qualified staff during computer classes and also on specific student's needs provides tuition. For purposes of data analysis packages study students have to work with textbooks in statistics and data processing.

The main active teaching form is assistance in the computer class. This assistance can range from extending elementary skills to consultations about complex problems of data analysis and information search.

All computers in the computer class are connected to Internet and to the LAN of the Academy, therefore allowing access to various network resources.

Students receive their individual e-mail addresses. They can use then e-mail and other Internet related resources also in the computer classes.

## **6. ASSESSMENT METHODS**

Assessment is made at the end of the course. Assessment includes general proof of the necessary abilities and understanding of various computer-related technologies. Students must possess skills in use of Internet and be able to use them in their practical work and in other courses.

The final assessment is made in request form - students must provide evidence about use of various computers - related resources and show their ability level of Internet use.

## **7. STRENGTHS**

This course is a very modern course and is very well accepted by students. The course gives the students insights of the modern technologies and extends their study horizons significantly. A medical specific of the course extends previous gained computer skills in direction of their future professions.

Groups of students are small allowing almost individual tutoring on request.

Regular meetings with staff of the Latvian Dentistry Institute allow to coordinate efforts in computer science course with activities in other courses.

## **8. WEAKNESSES**

One obvious weakness is that computer technology progress rapidly and therefore is associated with significant costs of hardware, software, literature and high efforts necessary to offer up-to-date courses. High costs of the literature don't allow every time to have supportive textbooks by students.

## **9. INNOVATIONS AND BEST PRACTICES**

Dental students are taught as an independent group with special program.

Curriculum feedback from the students is continuously used for changes in curriculum.

There are used small groups of students in practical works and seminar sessions, which make good contact between staff and students.

The good contact with Institute of Dentistry helps to keep up with newest information in dentistry.

Students can have contact with their teacher staff using Internet technologies.

The professors working with dental students have a long time practice in teaching dental students.

## **10. PLANS FOR FUTURE CHANGES**

Future changes provide inclusion in the course of specific topics related to dentistry studies- use of electronic textbooks, use of computer-based video and other imaging techniques.

## **16.3. PHILOSOPHICAL ANTHROPOLOGY**

**NAME: assoc. professor, Dr. phil. Vija Sile**

**ADDRESS: Department of Humanities, Dzirciema St., Nr. 16, 409103, 409104**

### **1. INTRODUCTION**

The Philosophical Anthropology course is for the 1<sup>st</sup> year students for 1 term. The course introduces the further humanitarian subjects and behavioural sciences.

### **2. PRIMARY AIMS**

To construct a united conception of search for an anthropological scientific theory of human nature and the results of this search.

United conception taking into account natural, cultural, moral and social influence on human beings.

To encourage a tend towards reflections and introspection.

### **3. MAIN OBJECTIVES**

1. To get acquainted with the conception of philosophical anthropology about the human nature dualism and its contradictory expressions.
2. To develop the skill to analyse and to value, to use philosophical argumentation for reasonable expression of personal viewpoint.
3. To develop the skill to express criticism or support.
4. To read the anthropological texts at first hand and to define main ideas in the form of thesis.

### **4. HOURS IN THE CURRICULUM**

51 hours over 17 weeks, allocated to a combination of 34 lecture hours and 17 seminar hours.

### **5. METHODS OF LEARNING/TEACHING**

Each student attends one weekly lecture and a total of nine seminars, does some background reading for seminar discussions.

The seminar sessions allow students the opportunity to explore, to discuss and clarify issues covered in the lecture course. The role of the tutor of the seminar group is to facilitate students' discussion on the seminar topic. For each seminar session, a subset of the seminar group is designated to lead the topic, based on a greater degree of preparation planned between them. Everybody must define the main ideas in the form of thesis and antithesis, explain contradictory points of the topic.

## **6. ASSESSMENT METHODS**

At the very end of the course students have theoretical test, including written multiple choice test and oral answers to questions. During the term students have terminology tests in a written form.

## **7. STRENGTHS**

The curriculum time and teaching resources are quite sufficient to support a course delivered by a combination of lectures and seminars, which is felt to be the most appropriate method of teaching the subject. These resources are complimented by recent staff appointments, which enable teaching to be provided by staff whose primary academic expertise lies in a range of humanities.

## **8. WEAKNESSES**

Although there is sufficient time within the curriculum to provide the course, but for deeper acquisition of the subject the number of seminars should be the same as the number of the lectures.

## **9. INNOVATION AND BEST PRACTICES**

1. Improved continuity and coherence to the course resulting from the appointment of appropriate teaching staff.
2. Improvement in students' ability to analyse the basic issues of the course *Philosophical Anthropology*.
3. Introduction of new teaching aids.

## **10. PLANS FOR FUTURE CHANGES**

In the current concentrated time – frame it is planned that the subject will be introduced in more appropriate degrees which will involve opportunities for discussions and self-directed learning.

## **16.4. ECONOMICS AND ENTREPRENEURIAL ACTIVITY**

**NAME: Mara Kakse, assistant**

**ADDRESS: 1 Antonijas str., Riga, LV – 1010, Ph.7338311**

## **1. INTRODUCTION**

The place of realisation of the course is the Department of Public Health and Epidemiology.

## **2. PRIMARY AIMS**

The aim of the study course is to build the perception and to give background knowledge in the basis of market economy and its main points, underscoring medical care and its problems in accordance with the functioning in Latvia.

## **3. MAIN OBJECTIVES**

To introduce the students to the main concepts and matters in market economy

To give the knowledge in the essence and conformation of business and also in the administration of capacity factor, including organising and planning

To give the fell of institutional and economical functions of an enterprise as well as the ability to put it on use in realisation of prospects and when making decisions

## **4. HOURS IN THE CURRICULUM**

Lectures 16

Practical 32

## **5. METHODS OF LEARNING/TEACHING**

The course is provided for the audithory within the 5<sup>th</sup> study year, 9<sup>th</sup> semester.

The partial problemoriented method is aplied in the program.

## **6. ASSESSMENT METHODS**

The business plan presented by the students is included in a final test.

## **7. STRENGTHS**

Students can absorb the basic economy and its main problems and also the basis of management theory. The strategy of development regarding health care system in Latvia is also in question. Students learn to think critically and comparatively about the funding and organising of the health care in Latvia.

## **8. WEAKNESSES**

Due to the fact that the amount of classes is not sufficient and students have incomplete grounding of knowledge in the theory of economics, management, business and health economics, it is cumbrous to deliver the course successfully.

## **9. INNOVATIONS AND BEST PRACTICES**

The students have the possibility to discuss the problems of practical business within the marketing, field of advertising

## **10. PLANS FOR FUTURE CHANGES**

It is important to enclose the additional subjects on ethics, legislation and morality.



## **VISITOR'S COMMENTS**

# **SECTION 17**

## **EXAMINATIONS, ASSESSMENTS AND COMPETENCES**

## EXAMINATIONS, ASSESSMENTS AND COMPETENCES

Responsible for awarding the degree in general dentistry is AML / RSU. After successful completion of a full five-year study course, which is confirmed by the dean of the Faculty of Stomatology and AML / RSU rector, individuals are allowed to take the final examinations.

Final examination committee is comprised by vice rector of the higher school, faculty dean, heads of the departments and representatives from the Board of Latvian Dental Association. Examiners are teachers and tutors of the corresponding departments. Among the members of the Board of Latvian Dental Association there are also teachers of AML / RSU. Thus an indirect follow-up is provided in order to make the dental curriculum and examinations adequate for the purpose of producing graduates fit for entry to dental practice.

Comprehensive assessment procedures ensure that on graduation, individuals are able to take professional responsibility for the safe and effective care of patients.

The division of responsibility among the number of academic departments involved provides a challenge in terms of developing a consistent assessment process. A range of assessment methods is used and the subject knowledge, practical skills and professional attitude of each student are monitored.

In AML / RSU, finishing a course of studies in a subject, students' knowledge is assessed in two ways: by evaluation being "tested" or "untested" and by an examination evaluated according to ten-grade system. The minimal number of the acquired points should be five. At the beginning of study course students are informed about types of assessment, which is determined in a study programme. At the end of the main courses there are an examinations.

During each study semester students should pass tests and examinations in certain subjects. Only after successful completion of all tests and examinations students are allowed to continue studies.

In the pre-clinical courses, students are assessed through a number of in-course assessments. There is diversity in styles of assessment, the style being appropriate for the purpose or stated objective. Assessments are spread throughout the year to encourage the development of good attitudes in relation to consistent study, to give regular feedback on progress in achieving the examiners' expectations and to help the student identify the required standards.

Students are assessed prior to the clinical work in order to ensure their fitness to treat patients. The main assessment is conducted during the Phantom Head course organised by the Department of Conservative Dentistry.

During the Clinical courses students are assessed by each department which accumulates information from written assignments, periodic class tests, attendance on clinics, attitudes to patients and staff, performance during seminars and other small group teaching sessions, and through the quantity and quality of laboratory and clinical work. Although data for course assessments are required every six months, each department has its own internal arrangements for gathering information, based on the topics covered and the nature of the programmes of study. Coordination of course assessments is the responsibility of Heads of Departments. Departments also have their own internal procedures for monitoring student progress and for counselling students with learning difficulties.

Of great importance is checking students' practical skills in dentistry. In the 7<sup>th</sup> term of the fourth study year students must pass a test on restoration of a tooth on a patient. This test enables to assess manual abilities of each student almost two years before final examinations.

**The final examination** is a comprehensive test of student ability; it takes place in five stages during the 10<sup>th</sup> semester.

*Literature review.*

Deadline for application of the work and its presentation is February. Literature review is designed as an analytical description of the chosen topic related to dentistry. Student's ability to work with literature, to describe the acquired information, to give proper quotations and to present it in front of audience is assessed. The students apply their written works and present orally their summaries and they should be able to answer any questions on the topic.

*Practical skills are assessed by accumulated examination.*

During the 10<sup>th</sup> term, until the middle of May, each five-year student should perform restorative treatment in both a child and adult, as well as make dentures. Prior to them, the designed plan of treatment should be submitted to the teacher's approval. An examiner and a member of the final examination committee assess quality of the treatment.

In Orthodontics students perform measurements, cephalometric analysis and clinical examination of the patient.

In Maxillo-facial surgery this stage of assessment is substituted by a case history.

Students should apply a report on the range of treatment work performed during all the time of studies, using the report form elaborated by the corresponding departments.

*Integrated examination.*

It takes place in the second half of May within a week. Simultaneously, in Conservative dentistry, Prosthodontics, Maxillofacial surgery, as well as in Paediatric dentistry including Orthodontics, students' complex skills are assessed - in diagnosis of dental diseases, designing of integrated treatment and filling in documents, X-raying and assessing a roentgenogram - while a student is working with a patient in the presence of examiners and members of final examination committee.

*Theoretical examination.*

It takes place in June and consists of two parts.

First part is a *written examination* - 570 multiple-choice questions, covering the all course of dentistry. To take an oral examination a student should have 75 % of correct answers in the written examination.

Next part of the examination consists of *four oral examinations* in the following subjects in dentistry: Conservative dentistry (Preventive dentistry, Cariology, Endodontics, Periodontology, Paediatric dentistry); Prosthodontics; Orthodontics; Oral and maxillofacial surgery and Oral pathology.

Literature review, practical skills, knowledge in the integrated examination and oral examinations are assessed by ten-grade system. To pass an examination the minimum number of points is five.

After each oral examination, members of the final examination committee determine the total assessment of examinations formed by: the mean mark of the literature review, accumulated examination and integrated examination form 50 % of the total final mark in the subject. Evaluation of the oral examination forms other 50 % of the total final examination mark in the corresponding subject.

None of the assessments is anonymous, which, undoubtedly, may make the assessment subjective. However, the procedure of the final examination is complicated enough, it includes several examiners that, in its turn, makes the assessment less subjective.

## **VISITOR'S COMMENTS**

## **SECTION 18**

### **OTHER INFLUENCES**

**18.1. FOREIGN LANGUAGE**

**18.2. REGIONAL ORAL HEALTH NEEDS**

**18.3. EVIDENCE BASED TREATMENTS**

**18.4. INVOLVEMENT IN OTHER UNIVERSITY  
ACTIVITIES AND SPORT**

**18.5. RECREATION**

**18.6. STUDENT SELECTION PROCEDURES**

**18.7. LABOUR MARKET PERSPECTIVES**

## **18.1. FOREIGN LANGUAGE**

**NAME: Sarma Cire, lecturer**

**ADDRESS: 16 Dzirciema str., Riga, LV – 1007, Ph. 2 409168**

## **18.2. REGIONAL ORAL HEALTH NEEDS**

Clinical base of the Faculty of Stomatology of AML/RSU is Stomatology Institute, which works in connection with Latvian Dental Association.

Latvian Dental Association have elaborated and Ministry of Welfare have approved Regulations on Dental speciality. Thus it provides indirect supervision of the study process in order to ensure that quality of the new specialists corresponds to the requirements of the Regulations on the speciality.

With regard to more detailed assessment of oral health needs, there is the Oral Health Centre. This unit takes part in collecting data and assisting in the development of oral health strategy for Latvia (See Appendix 5). Further, a number of academics and hospital dentists within the centre have been involved in the development of the Latvian Oral Health Strategy. Taking into consideration still high incidence of oral diseases, one of the most important directions of the activity is preventive dentistry.

Stomatology Institute, the main clinical base of the Faculty, deals with consultative and medical aid in General Dentistry and dentistry specialities. Despite of the fact that in Riga there is a great concentration of private dental offices, a lot of inhabitants from Riga and the nearest districts choose Stomatology Institute as their place for dental care. This is supposed to be due to the following reasons:

High quality of practical work,

Relatively lower prices,

Agreements with the State Sick Cashes and insurance companies that covers treatment expenses for some groups of the population.

In Latvia, the greatest concentration of specialists in endodontics, orthodontics, periodontology and oral surgery is in the Institute of Stomatology. Therefore patients from all over the country, in case of necessity, are referred for consultation and treatment to the Institute. Thus students have possibility to treat patients having both simple and complicated oral illnesses in different dental specialities.

## **18.3. EVIDENCE BASED TREATMENT**

Lectures in the Faculty of Stomatology are provided with the actual scientific literature. Evidence based medicine are introduced in courses and in treatment of patients. Students can discuss problems with lecturers during treatment of patients.

## **18.4. INVOLVEMENT IN OTHER UNIVERISTY ACTIVITIES AND SPORT**

There is a sport centre in AML/RSU. Courses in some disciplines in sport (basket – ball, tennis, aerobics, skiing, etc.) are offered. Students have the opportunity to enjoy other cultural activities like music, dancing and other.

## **18.5. RECREATION**

Riga is town with old city centre (anno 1201), many musics, cinemas, theatres. In some places students can get in with a reduced entrance – fee. The nearest surroundings of the city serve as recreation areas.

## **18.6. STUDENT SELECTION PROCEDURES**

All students are enrolled to the Faculty through Admission Committee of AML/RSU in accordance with Admission Regulations.

In AML/RSU citizens and permanent inhabitants of Latvia, having secondary general or specialized education, and passing competition in the chosen faculty, comprise the number of students, whose studies are financed by the state. Applicants to the Faculty of Stomatology take examinations in chemistry, biology and Latvian (essay). Knowledge is evaluated according to ten-grade system in the range of secondary education. Applicants, having received unsatisfactory mark in an entrance examination, are not enrolled. At present there are 1.5 applicants for one study place.

## **18.7. LABOUR MARKET PERSPECTIVES**

Up to this year the Welfare Ministry together with the administration of AML/RSU and Institute of Stomatology planned the necessary number of students. This year number of students is determined by Welfare Ministry.

Total number of dentists in the country (approximately 1 to 1600 of the population) is comparable to that in other European countries. In this country there is high incidence of oral diseases but rather low solvency.

In general, the graduates do not have significant problems to find a place of job. However, irregularity in spread of the specialists can be clearly seen - there is high concentration of dentists in Riga and other large cities, but significant lack of them in rural districts. The number of practices in a particular region is not limited.

## **VISITOR'S COMMENTS**



## **SECTION 19**

### **STUDENT AFFAIRS**

- 19.1. BASIC STUDENT DATA**
- 19.2. POSTGRADUATE COURSES**
- 19.3. STUDENT COUNSELING SERVICES**
- 19.4. STUDENT'S RESEARCH GROUP IN  
FACULTY OF STOMATOLOGY**
- 19.5. LATVIAN ASSOCIATION OF  
DENTISTRY STUDENTS**

## STUDENT REPRESENTATIVES

1 <sup>ST</sup> year	Inita Semberga Liene Dilevska Edgars Seja Julija Zanegina
2 <sup>nd</sup> year	Levs Gavrilovs Iveta Jankovska Skaidrite Zusane Evija Ruka
3 <sup>rd</sup> year	Baiba Rone Tatjana Karakeciba Sintija Cerina
4 <sup>th</sup> year	Linda Dumina Julians Lisagors Guntars Lazdans Veronika Jegorova
5 <sup>th</sup> year	Tatjana Bodnar Martins Auzins Inese Silgaile Anda Strike

### 19.1. BASIC DATA

A. Average number of dental students graduating per year: 34 ( 1996-2000)

B. Average number of dental students admitted to the first year: 38 ( 1991-1995)

C. Length of course is five years.

D. Is there a separative period of vocational training following graduation as a dentist in your country?

Yes. Two years practice (training) in order to become certified (after passing examination)

E. Is that organised by the Universty/ Dental School?

No.

### 19.2. POSTGRADUATE COURSES

Scheme title / level	Duration	Status	Numbers in active studies	Completed the program
Specialist diploma in Paediatric Dentistry	3 years	Full time	3	6

Specialist diploma in Prosthodontics	3 years	Full time	4	7
Specialist diploma in Orthodontics	3 years	Full time	4	5
Specialist diploma in Oral and Maxillofacial Surgery (double education – dentistry and general medicine)	5 years	Full time	2	6

### 19.3. STUDENT COUNSELING SERVICES

#### 19.3 Student support and counselling.

Students are encouraged to seek assistance on the solution of their academic problems particularly from the dean of the faculty. Problems of financial and personal character can be discussed. The dean of the faculty personally can advice students or refer them to the Deans' Council. Academic problems are solved in accordance with the "Instructions on Studies ". Undergraduate dental students are not provided with academic staff as personal tutors.

In the country there is developed student crediting system. Credit for studies is given in accordance with the existing in the certain period Regulations on student crediting. In AML / RSU there is Credit Committee which make decision on crediting possibilities in every individual. The Committee includes representatives of students as well.

#### Student self-government of the AML/RSU

Student Self-government takes an active part in the life of Medical Academy. Once a year Self-government conference is organized where representatives from different study programmes and years take part. The conference elects the Board, which, in its turn, chose the Chairman of the Self-government. However dental students are passive in the work of the organization.

The main direction of the Student Self-government is to represent and defend interests of the students. According to the requirements of the Law on Higher Education students have 10 % of votes in the Senate of a higher school (4 votes from 40). The Student Self-government chooses representatives for the Senate. For several years AML Student Self-government takes an active part in Latvian Student Union. At present a representative from AML Self-government Dita Sile is a member of its Board and head of the International group of the Student Union. To ensure defence of the students' interests the Student Self-government has spread announcements to Latvian mass media, organized pickets and delegated representatives to the Committee for Reorganization of Latvian University and Medical Academy as well as carried out other activities.

To help students to solve their social problems the Self-government collaborate with AML/RSU Student Trade Union. The Self-government is actively involved also in dealing with financial support to students.

Every year the Self-government carries out different activities for students, for example a yearly party for first-year students, which has gained great popularity. It also organizes teams for celebrating Student days together with other higher schools as well as for competitions.

The plan for near future is related to legislative assessment of the new Regulations of the Self-government and their submission to AML/RSU Senate. It is necessary in order to become a legislative person thus more successfully gaining finances for social support of students. To assess the results of activities and elaborate directions of further activities a Strategic seminar will be organized in summer of 2000. Such seminar is necessary also in order to increase activity of the members of the Board and involve new people into work. New informative materials will be elaborated to improve students' knowledge on their rights and representative institutions.

## **Trade union of students**

It is a structural unit of the trade union of medical workers in Latvia. The members are the students of the AML/RSU who study in Faculty of Medicine, Stomatology, Rehabilitation and Public Health.

Trade union deals with:

Issues of student hostels,

New year celebration for students' children,

Problems of student crediting,

Problems of student financial support,

Organization of graduation party,

Support student activities in sport, culture and science.

Student Trade union Committee have close collaboration with student and resident self-government and research society.

## **19.4 Student's research group in Faculty of Stomatology**

The beginning of the student's research activities is dated back to the foundation of Medical Faculty of Latvian University. The first research group was organised by professor P. Stradins in 1945, but in 1947 the first student's research group was founded in Medical Faculty as well as in Faculty of Stomatology. The most active period of various activities coincides with the time of the foundation of the Medical Institute in 1950.

Since the very foundation of the faculty student's research work was included as an integral part of each department – of Stomatological Therapy, Surgery and Orthopedy. The research has always been in charge of chairmen, deputy of chairmen and secretaries and has been carried out under the guidance of professors, assistant professors, lectures experienced in research and practical work. Student's work included a wide spectre of activities - such as analyses of clinical cases, preparation of teaching materials, drawing up scientific papers, slides e.g. The results of this activities were nominated at annual student's research meetings. The best of them were presented at all Soviet Union conferences and in the annual meetings of medical students from the Baltic States. Many, of today famous doctors and scientists began their research and scientific carrier as members of student's research groups. There was a decline in the student's research of the end of the 80's and now since 29.03.1999 we witness the revival of that work. Now there exists a "joint student's research group" which includes 17 students from the fourth and fifth study years. The work is organised under the guidance of professor I. Cema by G. Svikis and S. Jurge.

The activities are planned to develop in the following main trends:

Review of medical literature, analysis of clinical cases,

Participation at annual student's scientific conferences and sessions held in Institute of Stomatology and AML/RSU,

Collaboration with other student's research groups from different Departments,

Collaboration with dental student's research groups from Estonia and Lithuania.

## **19.5. LATVIAN ASSOCIATION OF DENTISTRY STUDENTS**

This is organization, that unites Latvian students of dentistry. The merits of this organization are following:

1. Favour international collaboration with foreign country dentistry students.
2. Favour professional promotions of students.
3. Popularization of oral health.

LaADS had been registered at LR institution register on the 8<sup>th</sup> March of 2000, but the students organized activities are being taking place for 6 years already.

There are about 25 students being members of the organization at the present moment.

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## **VISITOR'S COMMENTS**

# **SECTION 20**

## **RESEARCH AND PUBLICATIONS**

## **DEFENDED THESIS**

### **DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY**

**1997** – Ilze Akota “ Mandibular third molar surgery. The effect of Aureomycin ointment impregnated drain on postoperative morbidity compared to no local medication or vaseline impregnated drain”, Master of science, University of Oslo; nostrificated as Dr. med. degree.

**1997** – Janis Dumpis – Microsurgery of salivary ducts. Dr. med.

**1998** – Ingrida Cema “Significance of cellular and molecular structural changes in the clinic of oral precancers and squamous cell carcinoma”. Dr. habil. med.

**1999** – Egils Korņevs “Tissue structural and functional alterations in pathogenesis of complications during treatment of oral cancer”. Dr. habil. med.

### **DEPARTMENT OF PROSTHODONTICS**

**1997** – Una Soboleva “ Jaw movements: An overview of tracking devices, and a clinical study of the effects of a stabilization splint on certain aspects of masticatory jaw movements”, Master of science, University of Oslo

**1999** – Antra Ragauska had started the scientific work “Bioceramics – restorative material in dentistry”

### **DEPARTMENT OF ORAL PATHOLOGY**

Dr. Rostoka D. “Halitosis manifestation in mouth, testing and improving of oral health. “

## **RESEARCH PROJECTS**

### **DEPARTMENT OF CONSERVATIVE DENTISTRY**

"Dental Caries Prevention using toothpastes containing, AmF and NaF in preschool children in Latvia" - head doc. E.Senakola 1997 - 1999

"Clinical Evaluation of Alkaline Glass Composite" - head asoc. prof. R.Care, 1997 – 1999

"Pilot epidemiology study in Riga, Latvia", head asoc. prof. R.Care, 1997.

"Second epidemiological pilot study in Latvia" - head asoc. prof. R.Care, 1999.

### **DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY**

With Riga Technical University, Laboratory of Bioceramics since 1992 – “Manufacturing, experimental and clinical evaluation of calcium phosphate bioceramics” in state research

programm ‘Biomaterials and new technologies in medicine.’ The joint magister study programm ‘Biomaterials and biomechanics’ is developed.

With Karolinska Institute, Stockholm, Department of Oral and Maxillofacial Surgery since 1998 – “Biochemical and hystomorphological evaluation of TMJ retrodiscal tissue.” Will finish in 2000 by MSc thesis of Dr. D. Paegle.

With BiOsfix Elimäki, Finland – “Clinical evaluation of 100 BiOsfix dental implants in the anterior part of upper jaw” – since 1999.

## **DEPARTMENT OF ORTHODONTICS**

Tempus Jep – 12538-97 project “Development of Dental Education in Latvia to EU standarts”, 1997-1999, project coordinator assoc. prof. I. Urtane

EURO – QUAL Biomed – 2, 1993-1999

Study of Latvian children dental and Stomatognathical situation, prevention and rehabilitation possibilities, head of project assoc. prof. I. Urtane

“The relationship between airway obstruction and dentofacial morphology”, G. Jakobsone, DDS, I. Terauds, MD

## **DEPARTMENT OF ORAL PATHOLOGY**

Investigation of connection of stomatognathic systems and TMJ disturbances;



## **PUBLICATIONS**

### **DEPARTMENT OF CONSERVATIVE DENTISTRY**

#### **1997 YEAR**

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Care R., Rastiņa R. Epidemioloģija kā pamats reālās zobu slimību situācijas novērtēšanai Latvijā. Pasaules Trešais Latviešu Ārstu kongress, 1997, 25 - 28 jūnijs, tēzes.

Grīnvalde I. Ārsta taktikas izvēle parodonta hronisko iekaisuma slimību gadījumā. Zobārstniecības raksti, 4, 1997.

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Care R., Senakola E. Education and Research in Latvian Dentistry. Oral Health around the Baltic Sea. The Nordic School of Public Health, Gothenburg, 1997, 10-12.

Senakola E., Care R. Oral Health Organization, Plans, Goals, Methods, Monitoring and Evaluation in Latvia. Oral Health around the Baltic Sea. The Nordic School of Public Health, Goteborg, 1997, 24 - 26.

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Brinkmane A., Senakola E. Mutes Veselības mācība skolā. Zobārstniecības raksti, 1, 1997, 29-30.lpp.

Kundziņa R., Mindere A. Ca(OH)<sub>2</sub> pielietošana endodontijā. Zobārstniecības raksti, 1997.

#### **1998 YEAR**

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Brinkmane A., Klausītāja E. Speciālās zobu pastas zobu un parodonta slimību profilaksē. Tēzes. Pirmais Latvijas Zobārstniecības kongress, 1998, 42.lpp.

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Senakola E., Brinkmane A., Demčilo I. Dental Hygienists education step-by-step model in Latvia.. 14 International Symposium on dental hygiene. Florence, July 2-4, 1998, Final Program-abstracts p.124.

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Kučinska M. Palīglīdzekļi kontaktpunkta atjaunošanai. Zobārstniecības Raksti, 998, 1 lpp.

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## **DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY**

### **1997 YEAR**

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## **VISITOR'S COMMENTS**

## **SECTION 21**

# **QUALITY DEVELOPMENT OR CONTINUOUS IMPROVEMENT POLICIES/SHEMES**

## **21. QUALITY DEVELOPMENT OR CONTINUOUS IMPROVEMENT POLICIES/SHEMES**

### **FACULTY AND STAFF DEVELOPMENT**

Faculty and staff development is carried out within the environment of the Institute of Stomatology, AML/RSU, mainly. Since 1995 Institute of Stomatology has been designated as a World Health Organization Collaborating Center in Continuing Dental Education (See Appendix 4).

One of the tasks of Institute of Stomatology is to train academic and clinical oral health staff (dentists and auxiliary) as core personnel for the development of new curricula and to teach modern dental technology.

Staff members have had a close collaboration with the following universities

Karolinska Institute, School of Dentistry (Sweden)  
University of Oslo (Norway)  
University of Wales College of Medicine Dental School (UK)  
University of Helsinki (Finland)  
University of Buffalo Dental School (USA)  
University of Rostock (Germany)  
University of Munich (Germany)  
University of Goteborg (Sweden)  
University of Mississippi Dental School (USA)  
University of Lund (Sweden)  
University of Toronto (Canada)  
German Institute for Continuing Dental Studies, Karlsruhe (Germany)  
University of Umeo (Sweden)

Several members of the staff including postgraduate students who are expected to become teachers in future have participated in Tempus Phare JEP 12538-97 "Development of Dental Education in Latvia to EU Standards" (See Appendix)

We have a policy to invite external teachers who are highly qualified specialists in dentistry and related specialties to held lectures for staff, postgraduates and undergraduates as well.

Every staff member can visit the postgraduate education lectures, seminars and courses offered by AML/RSU and Latvian Dental Association, Latvian Association of Oral and Maxillo-facial Surgeons and others.

Every staff member can visit external courses; attend national and international congresses.

Staff evaluation by students

Since a couple of years, AML/RSU has performed the evaluation of lectures, practical courses and teaching staff by students. This evaluation is carried out on special questionnaires distributed to all students at least once a year; it is anonymous. We expect the evaluation to become an important source of information for further development of the dental curriculum.

However, the students are not very active to take part in this estimation.

## **VISITOR'S COMMENTS**



## **SECTION 22**

# **VISITORS EXECUTIVE SUMMARY ON THE SCHOOL**

### **Part II Visitors Comments**

**Visit to the School of Dentistry, University of RIGA**

**17<sup>th</sup>-21<sup>st</sup> June 2000**

# FINAL REPORT

## VISITORS' COMMENTS FOR EACH SECTION OF THE REPORT

### 1. INTRODUCTION

The visitors express their gratitude to all the staff in Riga who were involved and who put a lot of effort and time into this visitation. Special thanks are expressed to Associate Professor Ilga Urtane and to Docent Ilze Akota, Dean of the Dental Faculty for the co-ordination of the visitation and we also commend those who presented information for their enthusiasm and for the huge amount of time spent. The visitors experienced warm hospitality throughout their stay in Riga.

An extensive self-assessment report had been submitted in advance, which was a firm basis for our preparation and our work in Riga. On arrival, a corrected version, as well as a core curriculum document, were given to us.

The dental institute is apparently in a transition phase driven by the enthusiasm of the colleagues from the dental faculty. The visitors were impressed by the dynamic approach, related not only to the modernization of the facilities, but also to substantial changes in the dental curriculum.

Until 1992 dentistry was medically oriented with a ratio of medical and dental subjects being 40 % dentistry, 60 % medicine. In 1993, the curriculum was changed with dental subjects receiving greater emphasis. The ratio achieved was in the order of 60% dental subjects to 40% medical subjects. Since this time, the DDS-degree was established. The stated aim of this newly established course in dentistry was to reach the European level of dental education.

The dental curriculum is a five year course. However, before being certified to practice independently, the dentist must work for another two years under supervision. Currently, about 1700 dentists work in Latvia and the dentist/population ratio is one dentist for 1600 inhabitants. There is - for the time being - no problem for young dental graduates to get a job as a dentist.

### 2. FACILITIES

Altogether, the visitors were impressed by the high standard of technical equipment in some departments. In other departments it seemed to the visitors that better facilities are required, including sterilization. The visitors were informed that new equipment will also be installed in other departments in the near future.

Some buildings are far removed and therefore inconvenient to reach, which is a special problem for the first year students. The visitors propose that in certain subjects it would be more convenient if one professor is moving from one place to the other instead of the many students.

## **2.1 Clinical Facilities**

Hygiene standards are under monthly extended inspection by State authorities from the Ministry of Welfare. Visitors were shown how instruments were autoclaved in the individual departments. A selection of hand instruments like excavators or amalgam carvers were stored in open jars next to the treatment units. Visitors were informed that this arrangement was due to an insufficient number of hand instruments available. The visitors strongly encouraged activities to give upmost priority to updating hand instrument resources in order to meet adequate hygiene standards.

## **2.2 Teaching facilities including laboratories**

The laboratories for technical work were in an excellent state, but not sufficiently equipped for dental students to perform the technical work, e.g. the production of dentures. Phantomhead equipment in general is insufficient both in number and technical level.

## **2.3 Library**

The visitors were impressed by the IT equipment recently installed in the Library of the Medical Academy of Latvia to internet and to relevant data banks. However, the selection of dental scientific international journals and the number of available current text books in dental subjects is not adequate.

## **2.4 Research Laboratories**

The visitors were informed that no laboratory space was allocated to research within the Dental School. Due to the widespread structure of the Academy, the use of laboratories outside the Dental School is difficult. The visitors recommend to allocate space resources to research within the Dental School.

## **3. ADMINISTRATION AND ORGANISATION**

The Stomatological Institute is part of Medical Academy of Latvia. The “Institutional Board” is the governing body of the Institute. It includes the heads of Dental Departments, the Dean, the Director of the Stomatological Institute and a Financial Officer. The Board meets twice a month. No students or members of academic staff are represented in this Board. It seems to the visitors that representation of members of the institute including students in decision making processes would be valuable. The visitors recommended the creation of a curriculum review committee including the students, to coordinate the achievement of jointly stated aims and objectives.

Within the Academy, the Dental Faculty is separated from the Faculty of Medicine. Medical teaching (like anatomy and microbiology, etc.) is performed by colleagues from the medical departments: this is considered to ensure a certain level of organizational flexibility.

#### **4. STAFF**

The visitors had the opportunity to speak with a large number of teaching staff and were generally impressed by their commitment to the teaching of their subject. The ratio of teaching staff to students in the clinics was good relative to the experience of the visitors from other institutions in Europe.

The attractions of income from private practice constitute a problem for recruitment of staff and their retention in scholarly activities and in research. Inevitably, in a changing economy, there are fluid issues that need to be addressed.

#### **5. BIOLOGICAL SCIENCES**

The visitors were informed that most if not all of lectures/seminars/courses in the field of Biological Sciences had been especially designed for dental students. The visitors recognize the valuable commitment to the development of English language competence to take advantage of the current scientific literature.

During the presentations of the many courses it seemed to the visitors that some overlapping appeared. This situation would benefit from being reviewed with the overall aim of achieving more integration in the clinical dental courses. This is especially true for the foundation course in dental anatomy.

##### **5.1 Medical Chemistry**

Although the lectures have been specially designed for dental students, the co-operation with dental subjects was more informal. Students use textbooks in Latvian and German language. Now there is a new generation of textbooks written in English. Teaching was supported by hand-outs.

##### **5.2 Biochemistry**

Again lectures were held especially for dental students, but there was little connection with the teaching in dental subjects; the visitor purpose more emphasis on oral biochemistry (e.g. saliva).

##### **5.3 Physics and Biomaterials**

The time in this subject area was divided as 75% Physics, 25% Biomaterials (limited to technology). A course in statistics was specially designed for dental students. Only 18 hours were devoted to biomaterials and, as a result, only the basic principles could be covered. The visitors strongly emphasize for the biomaterials area the inclusion of more biological aspects. This seems to be a forward-looking direction both in research and teaching.

## **5.4 Human/Molecular Biology and Genetics**

Although the course in this subject was especially designed for dental students and taught by an enthusiastic and effective interactive teacher, again there were insufficient links with dental academics. The visitors believe that such a cooperation offers excellent opportunities for future collaborative research. The students expressed an interest in having more lectures in the ethical aspects of genetics in the context of health care.

## **6. PRE-CLINICAL SCIENCES**

### **6.1 Anatomy**

Due to legal problems, no dissection course was offered to the students. Students were not regularly involved in autopsies. Anatomy is taught exclusively by medical doctors and the visitors would recommend some dental involvement, especially for dental/oral relevant areas.

### **6.2 Dental Anatomy**

As has been mentioned above, this course would benefit from a closer integration into clinical teaching (e.g. TMJ/Occlusion). This would also improve the weak motivation of the students as was expressed by the teachers.

### **6.3 Physiology**

The institute of Physiology is inconveniently located for the students. In the past, there was greater integration with dental academic personnel, but this is not now as apparent. The staff prepare quite a lot of material for the dental students. The students enjoy this involvement. The visitors commended a Manual to be prepared for students.

### **6.4 Histology**

The approach to teaching in histology was very traditional. The visitors recommend the inclusion of modern techniques in teaching histology. Again this might improve the students motivation.

## **7. PARA-CLINICAL SCIENCES**

### **7.1 Pharmacology**

In pharmacology (two courses), teaching is provided by medical doctors. There is no special program for dental students with the result that they are exposed to a limited emphasis on dental topics. The visitors suggested that there was a need (a) for greater integration between pharmacology and dental education and (b) an elimination of the 18-month period between the two courses.

## **7.2 Microbiology/Oral Microbiology**

There is a very good library available in the Department of Microbiology. The visitors believe that closer collaboration between this department and the dental clinic with respect to cariology, periodontology and cross-infection control would add greatly to students learning opportunities. The visitors appreciate the efforts of the microbiology teacher to especially draw attention of the students to cross infection control, which is regarded to be essential for each dentist-patient contact.

## **7.3 General Pathology**

The distance between the dental school and the building for General Pathology is considerable and requires quite some „travelling“ of the students. Within the building for General Pathology there are also good library facilities. There could be greater emphasis on the relationship/integration between General Pathology and oral/dental subjects.

## **7.4 Clinical Pathological Physiology**

The lectures are problem orientated. There is an enthusiastic lecturer running this course for dental students. The visitors recommend that this course be moved later in the curriculum. The visitors were impressed with the computer facilities available and the special preparation of teaching material for the dental students.

## **8. HUMAN DISEASES**

There is an awareness of all teachers that there is a need for greater integration between subjects in the field of human diseases and related dental areas. The visitors were pleased to note that a major review of the whole general surgery course for dental students will take place in the next academic year.

### **8.1 General Surgery**

The visitors found some elements of this course to be overlapping with other programs and therefore repetitious. Again, the need to integrate teaching with dental subjects is advocated and it was discussed that this subject might be delayed until later in the course.

### **8.2 Dermatovenereology**

This subject was not presented during the visitation. The visitors recommend to emphasize this area. It is important because there is some close interrelation between skin diseases and those of the oral mucosa. Furthermore, quite a number of dental materials may elicit allergic reactions. Dermatologists normally are in charge of allergic reactions and the dentist must be trained to be able to communicate with dermatologists.

### **8.3 Infectious Diseases**

The visitors were informed that it is recommended for students to have a Hepatitis-B-(?)vaccination. The visitors recommend an obligatory vaccination. The visitors also advocate a closer relationship with microbiology in teaching this course.

### **8.4 Paediatrics**

The course in Paediatrics is not designed for dental students. There is co-operation with General Medicine in teaching this course. Once again, the visitors would commend greater integration with other parts of the dental curriculum.

### **8.5 Psychiatry and Narcology**

The visitors considered this an important course for both medical and dental students, although it was primarily orientated towards students of medicine. The visitors were advised that as in many countries, there is growing awareness of alcohol and drug abuse in the country and this has serious consequences for health care personnel. This course was considered to be one of the strengths of the curriculum and the visitors recommended that the teaching staff should include a dentist.

### **8.6 Internal Disease/Emergency**

The visitors were informed that the major emphasis of internal disease course was related to emergency cases. The visitors emphasize to offer a more extended general medical course to the dental students which provides more information of relevance to dental students.

### **8.7 ENT**

Despite the potential for close inter-relationships with dentistry, there was little integration in the education and training of dental students. The visitors recommend that consideration be given to closer integration.

### **8.8 Disaster Medicine**

The visitors commended participation of the dental students in this program. Nevertheless, the visitors did not observe involvement of students in cardio-pulmonary resuscitation.

### **8.9 Neurology/Neurosurgery**

The visitors complimented the production of a Latvian textbook on Neurology/Neurosurgery.

## **8.10 Psychosomatic Medicine and Psychotherapy**

The visitors were impressed with the course on psychosomatic Medicine and Psychotherapy. They were particularly interested in the focus on communications skills. There were good visual aids applied for student learning.

## **8.11 Anaesthesiology**

No comments.

## **9. ORTHODONTICS AND CHILD CARE**

### **9.1 Orthodontics**

The visitors were impressed by the high level of education in the area of orthodontics. They appreciate the effort to comply with European Standard (Euro-Qual). There was close collaboration between Riga and Cardiff through the Euro-Qual program.

Students are involved in carrying out simple orthodontic treatment with emphasis on diagnosis and when to refer a patient for specialist care. Students are unable to follow a complete course of treatment for a patient. In the context of practical training students prepare study models and removable appliance therapy with some simple cases of where fixed appliances are used.

The teaching in orthodontics is done by specialists. Students are required to present a project/review in front of the class and this is commendable. The visitors noted that books were provided through the departmental secretary rather than the library. The visitors especially acknowledge the research efforts in Orthodontics.

### **9.2 Child Care**

Also in Paediatric Dentistry students are involved in practical work, with a readily available supply of suitable patients. Research is being carried out and publications in international journals have been achieved. However, preclinical phantom head training would further enhance this program. The Children Surgical Stomatology Course shows extensive overlapping with other courses and should be reconsidered.

## **10. PUBLIC ORAL HEALTH AND PREVENTATIVE MEDICINE**

### **10.1 Preventive Dentistry, including 10.2 Community Dentistry**

The visitors were impressed by the enthusiasm which went into developing the concept of local Oral Health Centers being based on a foundation financed by industrial sponsoring. An



impressive amount of locally produced oral health promotional literature was presented. We were presented with a comprehensive review of the establishment and the progress of the Dental Hygiene School.

The visitors support the ideas presented to further integrate prevention strategies into the different dental subjects. Further integration of preventive concepts in other areas of dentistry is emphasized (e.g. prosthodontics).

## **11. RESTORATIVE DENTISTRY**

Due to the timing of the visit, it was not possible for the visitors to see the students actually treating patients in the clinics, which is considered to be a limitation for the visitors' statements.

### **11.1 Conservative Dentistry**

In the operative dentistry program, students are required to complete 58 restorations. The close cooperation between the preclinical and clinical course is highly appreciated. The use of natural teeth for practicing of adhesive restorative techniques should be further considered in the preclinical course and the teaching of dental materials aspects should be intensified.

Currently, there are plans to upgrade the clinic. The practical course in operative dentistry is well developed and the students perform practical work. Cooperation with preclinical areas, e.g. microbiology may be improved. The visitors recommended to further consider the concept of modern four-handed dentistry.

### **11.2 Pathology of Dental Hard Tissues**

This course is involved with practical classes, some in the evening in order to ensure students are provided with patients. This course is a continuum and taught by the same teachers as in 11.1. The visitors suggest a close inter-relationship with cariology and microbiology as an integral part of this course.

### **11.3 Endodontics**

In Endodontics the students receive a modern education. Students carried out endodontic treatment first on extracted teeth. The students were required to complete endodontic treatment on 9 canals in patients. The visitors acknowledge the effort of measuring the treatment results. The visitors commended this course where the didactic and practical clinical training were closely related.

## **11.4 Prosthodontics**

The visitors were impressed by the idea of a comprehensive approach within the prosthodontic area. The visitors recommend that the course on occlusion should be coordinated with corresponding preclinical teaching. The visitors were informed about ideas presented by the colleagues from the prosthodontic department of further providing with integrated courses. However, there remain apparently technical problems still to be solved. There was a shortage of laboratory personnel. The education in dental biomaterials should consider biological aspect.

## **12. PERIODONTOLOGY**

Periodontology was integrated into operative dentistry and prosthetic dentistry. The visitors strongly support this concept. Students observe periodontal surgery but much of the training is performed on models. Modern textbooks are available and used. Students are not exposed to long term patient care and maintenance.

## **13. ORAL AND MAXILLOFACIAL SURGERY RADIOGRAPHY AND RADIOLOGY**

### **13.1 Surgical Anatomy and Operations**

This pre-clinical course concentrates on the morphology of the mouth and the neck area. Students work with anatomical models. Integration with the clinic is advisable.

### **13.2 Oral and Maxillofacial Surgery**

The visitors were impressed by the opportunities in the National Oncology Center for the students to be involved in all clinical aspects of oncology in the head and the neck area. We were shown considerable evidence of research activities in this area.

The visitors were impressed by an altogether comprehensive plan of learning, delivered in a very structured way in Oral and Maxillofacial Surgery, which represents a core value in the stomatological system, and which has been adapted well for the training of future dentists. The visitors believed that the addition of a dental hygienist to this unit would be enormously helpful. The visitors noted the age of some of the equipment and recommended that it be replaced.

Research in the Department is performed in co-operation with 3 universities – Padua, Cardiff, and Rostok. Funding is external; e.g. grants from the Latvian Science Council. This department also provided postgraduate education and 5 Master theses had been completed.

### **13.3 Dental Radiography and Radiology**

The visitors expressed concern that there were no clear regulations in force in relation to the taking of radiographs. Also, it is clear that there is a need for new equipment as well as the need to more carefully define a set of appropriate practices for patient care.

In the report presented to the visitors on the curriculum of Dental Radiography and Radiology little emphasis was placed on safety aspects. Furthermore, it should be considered that time devoted to teaching of general radiology techniques could be better spent on other areas.

### **14. ORAL MEDICINE AND ORAL PATHOLOGY**

The course of Oral Pathology was in the process of being revised. The courses grouped in this area showed considerable overlapping and would benefit from being reviewed. Intentions for revision were expressed. The key elements of what is expected of the students in the oral diagnosis area did not emerge. We were encouraged by the way in which the course on diseases of the oral mucosa is developing. We encourage all developments to improve the access of students to appropriate patients.

### **15. INTEGRATED PATIENT CARE, DENTAL EMERGENCIES, SPECIAL NEEDS PATIENTS**

no comments.

### **16. PRACTICE MANAGEMENT AND COMMUNICATIONS**

no comments

### **17. EXAMINATIONS, ASSESSMENTS, COMPETENCES**

The visitors were informed that examinations included both theoretical and practical parts differing from one department to the next. Apparently the State has some influence on the examination process. Sometimes external examiners participate. In the course of further development the visitors would like to draw the attention to the concept of competences, which is expressed in the corresponding document of the EU Dental Advisory Committee and which is available on the DENTED webpage.

### **18. OTHER INFLUENCES**

The visitors recognized the drop of the caries rate in the recent years in Latvia expressed as the DMFT-index, which is, however, still comparatively high and which indicated the necessity of further encouragement of preventive strategies also in education.

## **19. STUDENT AFFAIRS**

There was only a small number of students present due to vacation/examination season which the visitors considered as a limitation for their work. Information was presented that students were performing a satisfactory number of practical work.

More exposure to outside dental information (exchange of ideas in the dental field) is wished. The students were aware of their limited access to contemporary text books. Foreign language textbooks (e.g. English/German) are available but expensive, Latvian language textbooks would be preferred.

The students experienced a heavy workload during the first two years combined with limited dental patient contact and they reported on some overlapping mostly during the first years. The students express their wish to have contact with dental patients earlier than presently in their study. The student expressed concerns about the time spent for travelling from one institute to the other.

It appeared that the tradition of student organization is not well developed in the Dental School in Riga. However, the information of the upcoming European Dental Student Congress was spread.

## **20. RESEARCH AND PUBLICATIONS**

There are research projects developing in some departments, a number of these with collaborators from abroad. The visitors were primarily confronted with a limited number of international publication but with extended lists of publication in national periodicals. The final aim of a thesis should be to be published in an international journal. The visitors support every approach to increase research activities especially in cooperation with basic sciences departments and they encourage publication of the results in international scientific journals..

## **21. QUALITY DEVELOPMENT**

The Institute of Stomatology is a WHO collaboration center continuing education, which was highly appreciated by the visitors. It seemed to the visitors that the financial support of TEMPUS-Program and other financial sources had a significant impact in quality improvement. The Information Technology equipment was of a higher standard than many dental schools in Europe. However, the access provided to students was unclear.

Teaching evaluation of courses by students is further encouraged. The further increase of external teachers being involved in student education is highly appreciated. There are plans to further develop the area of dental materials especially into the incorporation of biocompatibility and environmental aspects. This is supported by the visitors.

## **22. DENTAL HYGIENIST SCHOOL**

We were presented with a comprehensive review of the establishment and the progress of the Dental Hygiene School. We were impressed by the enthusiasm, which went into developing the concept of local Oral Health Centres being based on a foundation financed by industrial

sponsoring. An impressive amount of locally produced oral health promotional literature was presented.

### **23. SUMMARY**

The Dental School of the Medical Academy of Riga is apparently in a transition phase. Part of the equipment has already been replaced resulting in impressively well equipped facilities. Other parts still remain to be renovated. Special emphasis should be placed on cross infection control. Also the dental curriculum is in a transition phase. A new curriculum has been developed in 1993 with the aim to reach a European standard in dental education. While many areas show impressive results, in other fields more cooperation especially between the medical and dental subjects seems advisable. Finally, research is also progressing. Some departments show a list of international publications, while in other areas reports are mainly published in national journals with limited access to non-Latvia readers. Altogether, the colleagues in Riga have to be congratulated for the extraordinary achievements they have accomplished during the last 8 years. One of the visitors was in Riga in 1992 and he was highly impressed by the positive changes.