REQUIREMENTS

Semmelweis University Faculty of Dentistry
Department of Conservative Dentistry

Name of the course: CONSERVATIVE DENTISTRY AND ENDODONTICS V.

Credit value: 3

Lessons *(in hours)*: 42 lectures: 0 practices: 3 seminars:-

Type of the course: <u>compulsory</u> obligatory elective elective

Frequency of announcement *(per semester or year)*: per year (10th semester)

Academic year: 2021-2022

Subject code[1]:

Lecturer of the course: János Vág DMD, PhD

Contact: Department of Conservative Dentistry, 1088 Budapest, Szentkirályi u. 47. Phone: +361-317-1598

Function: clinical director, professor

The goals of the course in point of view of the education:
Thorough patient examination, taking medical and dental history, stomatooncological screening, establishing the diagnosis, preparing a treatment plan, routine application of isolation procedures, simple and complex cavity preparations and their restorations, root canal treatment of single or multiple rooted teeth and their definitive restorations with onlays or solo crowns. Revision of root canal fillings.

Location of the course *(address of lecture hall, seminar room etc.)*:
Dental Educational Center, Department of Conservative Dentistry, 1088 Budapest, Szentkirályi u. 47. First floor operating rooms (111, 113, 114)

Competences acquired by completion of the course:
The provisions of EMMI Regulation 18/2016.

Pre-study requirements and prerequisites of course registration and completion:

- Prosthodontics IV.
- Conservative Dentistry and Endodontics IV.

Number of students required for announcement of course *(min., max.)*: -

Method of course registration: Neptun system

Detailed course/lecture description[2]: *(to facilitate credit recognition in other institutions)*
Detailed weekly curriculum:
The subject is taught with three practical hours per week, there is no lecture.
During the exercises the students more independently and widely deal with the activities of the field of conservative dental care in the framework of clinical care under the supervision of the practice leader.

Courses *(obligatory and elective)* which in part or entirely overlap the topics of above course:
Upon successful completion of the subject student patient care solves complex and more complex tasks more confidently and independently within the framework of both the Conservative Dentistry and the Clinical Dentistry subject.

Special academic work required for completion of the course[3]:
After the 8th semester a 4-week general dental summer practice must be completed.

Attendance on practices and lectures, replacement in case of missed sessions:
Participation at practice is obligatory, the absenteeism at any reason may not exceed 25% of the practices. More than 10 minutes delay from practice is considered absence. Three delays (till 10 minutes) are counted as one absence. We cannot provide an opportunity to replace a missed practice. Absence does not need to be justified.

Consequences of absence from sessions and exams:
Work done at practice is controlled and valued by practice teacher. Students during the semester frequently write „small tests" to give proof of their theoretical knowledge. There is no retake for missed tests. Three delays (upto 10 minutes) are counted as one absence. More than 10 minutes delay from one practice is also an absence. A maximum of 3 absences are allowed. We cannot ensure a date to remedy absence. In these cases signature can not be given.

Method of checking acquired knowledge during the study period[4]:
Students must arrive prepared for the practice, which is regularly checked and evaluated orally and/or in writing by the supervisor. Students during the semester frequently write „small tests" to give proof of their theoretical knowledge. There is no possibility to retake the missed tests or to correct a test. The work done on the practices is monitored and evaluated by the practice leaders at all times.

Requirements of an accepted semester *(signature of the lecturer)*:
A minimum of 75% attendance is required at the practices, absences at any way may not exceed 25% of the practices.
The condition for signing the semester is the appropriate level of continuous and even theoretical preparation and the appropriate level of practical performance. The grades given for theory and practice must separately reach an average of 2.0.
Until the 11th week a photographic case report should be submitted to the practice leader.

Type of the exam: Final exam

Requirements of the exam[5]:
Students choose one-one question from the three topic groups (dental materials, conservative dentistry, endodontics). Presenting three documented clinical cases done at clinical practice during the whole time of the gradual course. Receiving an unsatisfactory (1) on any part of the examination means failure.
Topic lists are found on our homepage.

Final exam topics:

A. CARIOLOGY, MATERIALS, INSTRUMENTS

1. Definition of dental caries. Theories of caries development. Current concept of caries development.
2. Localisation, characterisation, progression and histology of dental caries.
3. Primary factors in caries development. Development and microbiological structure of dental plaque and its role in caries formation.
4. Nutrition and saliva in development of dental caries
5. Secondary factors in development of dental caries. Local and systemic factors.
6. Diagnosis of caries in pits and fissures, in smooth surfaces and in root surfaces. Assessment tools.
7. Caries prevention
8. Epidemiology and indexes of dental caries. Determination of risk patients.
9. Requirements for restorative materials. Classification of restorative materials.
10. Liners, bases and temporary filling materials. Composition, structure and properties.
11. Glass ionomer cements (polyalkenoat, resin- and polyacid modified): compositions, structures and properties.

12. Composition, properties and toxicology of dental amalgam.
13. Rules for safety and environmental protection during amalgam-application
14. Composition, classification and properties of composites.
15. The steps of adhesive restoration/filling technique. Structural changes in enamel and dentin.
16. Acid etching and priming
17. Classification of dentin bonds
18. Possible mistakes of adhesive restoration technique and how to avoid them.
19. Principles and possibilities in usage of hand and rotary cutting instruments.
20. Evolution of rotary cutting equipments and their classification according to the driving. Handpieces and speed limit.
21. Rotary cutting instruments. Definition, design characteristics and classification. (ISO 6360)
22. Alternative methods in cavity preparation and in caries removal. Oscillation, laser, air-abrasion and chemical caries removal.

B. OPERATIVE DENTISTRY

1. Medical and dental history and examination of the patient in operative dentistry.
2. The conditions of proper diagnosis and its instruments in operative dentistry.
3. Treatment plan in operative dentistry.
4. Ergonomic in organizing of dental workplace, preoperative considerations.
5. Infection control in dentistry.
6. The definition and methods of sterilisation and disinfection.
7. Four-handed treatment.
8. The position of the patient, dentist and assistant during the treatment of different quadrants.
9. The techniques of local anaesthesia in operative dentistry.
10. Isolation of the operating field.
11. Fundamentals and modifications in tooth preparation. Initial and final stages of cavity preparation.
12. Conventional, modified conventional and minimal invasive cavity design. What can influence our decision?
13. Specific cavity preparation. (tunnel, only-box, slot preparation)
14. The indications, contraindications and instruments of amalgam restorations.
15. Class II. cavity preparation and making amalgam restoration.
16. Cavity preparation for direct Classes III. and IV. composite restorations.
17. Cavity preparation for direct Classes V. and VI. composite restorations.
18. Indications for direct composite restorations. Steps and clinical application of adhesive filling technique.
19. The cause of dentin sensitivity and its treatment possibilities.
20. Indications for indirect restorations and clinical procedures.
21. Indication, contraindication, cavity preparation and clinical procedures of cast metal restorations.
22. Impression and temporary restoration for indirect restoration.
23. Indication, contraindication, cavity preparation and clinical procedures of indirect tooth coloured restorations.
24. Fixation (cementation) of indirect tooth coloured restoration.
25. Indication and contraindication of veneers. Types of veneer. Preparation, impression and insertion.

C. ENDODONTICS

1. Medical and dental history, examination and treatment planning in endodontics.
2. Making diagnosis in endodontics.
3. The anatomy and histology of the pulp and periapical tissues
4. The causes and characteristics of pulpitis
5. The pathology, symptoms and therapy of pulpal diseases.
6. The pathology, symptoms, diagnosis and therapy of reversible pulpitis.
7. The pathology, symptoms, diagnosis and therapy of irreversible pulpitis.

8. The classification of periradicular lesions.
9. The pathology, symptoms, diagnosis and therapy of acute and chronic apical periodontitis.
10. The pathology, symptoms, diagnosis and therapy of condensing osteitis.
11. The pathology, symptoms, diagnosis and therapy of acute and chronic apical abscess
12. Endodontic radiography. Interpretation, limitation, mistakes and differential diagnosis.
13. Odontogen focal infection
14. Microbiology of the infected root canal.
15. Systemic and local medication in endodontic treatment.
16. Instruments, used in root canal treatment and root canal obturation
17. The goal, indication, contraindication and the steps of the root canal treatment.
18. Access cavity preparation and length determination
19. Different methods for (techniques) preparing of the root canal (cleaning and shaping).
20. The objective of the obturation: apical, coronal and lateral seal. Timing of the obturation.
21. Materials for root canal obturation
22. Methods (techniques) of root canal obturation and their instrumentation
23. Restoration of the endodontically treated tooth. Requirement, principles and concepts.
24. Procedural accidents during access preparation, shaping, cleaning and obturation. (Causes, treatment and prevention)
25. Vertical (longitudinal) root fracture: causes, diagnosis, treatment and prevention. Evaluation of success and failure in root canal treatment.
26. Orthograde retreatment. Consideration, case selection and retreatment techniques.
27. Endodontic surgery : incision, periradicular surgery, root amputation, hemisection, bicuspidation. (Indication, contraindication, practice)
28. Maintenance of the vital pulp. Treatment of deep carious lesion. (Pulp capping, pulpotomy).
29. Endodontic emergencies.
30. Bleaching discoloured teeth. Causes of discoloration, indication and contraindication of bleaching. Bleaching materials and techniques

Grading of courses[6]:
A prerequisite for applying for the final exam is the existence of the semester signature. The grade of the final exam is five levels.

Exam registration:
In Neptun system

Rules of repeating exams: -
In Neptun system based on the current university study and exam regulations.

List of textbooks, lecture notes and recommended textbooks:

1. Ritter AV, Boushell LW, Walter R: Sturdevant's Art and Science of Operative Dentistry. 7th ed. St. Louis, Mosby, 2018.
2. Torabinejad M, Walton RE, Fouad AF: Endodontics. Principles and Practice. 5th ed. St.Louis, Missouri, Saunders/Elsevier 2014
3. Hargreaves KM, Berman LH: Cohen's Pathways of the Pulp. 11th ed. St. Louis, Missouri, Mosby/Elsevier 2015

Signature of course lecturer:
János Vág DMD, PhD

Signature of head of department:
János Vág DMD, PhD

Date of submission:

Opinion of OKB:

Notes from the Dean's Office:

Signature of Dean:

[1] Filled out by the Dean's Office following approval
[2] Detailed and numbered for each week of theoretical and practical lessons one by one, indicating the names of lecturers and instructors
[3] Eg. field practice, medical chart analysis, survey conducting, etc.
[4] Eg. homework, report, midterm exam etc. Topics, dates, method of retake and replacement.
[5] List of topics in case of theoretical exam, thematic and method in case of practical exam.
[6] Method of inclusion of theoretical and practical exams. Method of inclusion of midterm assessments.