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CURRICULA

25th Curriculum for the University Course in "Esthetic Dentistry"

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Pursuant to § 25 Para. 1 Z 10 in conjunction with § 56 UG the Senate of the Medical University of Vienna, in its meeting on March 16, 2018, approved the resolution of the Curriculum Board for University Courses dated November 22, 2017, concerning the curriculum for the university course in "Esthetic Dentistry". The period of validity of the Curriculum is limited to three years. The Curriculum is as follows:

Part I: General

§ 1 Objective

The university course in "Esthetic Dentistry" represents postgraduate basic training and further training for practicing dentists. The course imparts state-of-the-art knowledge based on the study of dentistry and specialization in the field of esthetics. In addition to the acquisition of scientific principles, an update of theoretical training and especially practical training under the supervision of experts from the field of esthetic dentistry represent the basis of this university course. For the master study a research platform is available.

§ 2 Qualification Profile

The university course in "Esthetic Dentistry" imparts consolidated, scientifically and methodologically excellent education oriented toward sustained knowledge that renders graduates capable of further qualification and an occupation in the following fields of activity, for example, and makes them internationally competitive:

- Orofacial aesthetics
- Esthetic management with composite
- Esthetic management with ceramics: from inlay, crown, and bridge to veneer
- Use of laser in esthetic dentistry
- Various methods of tooth bleaching
- Periodontal plastic surgery for the purpose of esthetics
- Preprosthetic periodontal surgery and implantology in esthetic dentistry
- Implantation and implant prosthetics for the purpose of esthetics
- Interdisciplinary esthetic dentistry
- Graduates are qualified for university teaching in the field of esthetic dentistry

§ 3 Cooperative Agreements

For the purpose of commercial and organizational support the course will be held in collaboration with the University Clinic of Dentistry Vienna (a wholly owned subsidiary of the Medical University of Vienna). More detailed provisions are regulated in a cooperative agreement.

§ 4 Duration and Structure

- (1) The university course lasts 4 semesters with a total of 34 semester hours of mandatory courses (504 academic hours), which is equivalent to 70 ECTS credits. Taking the master paper into account (20 ECTS credits) the course accounts for 90 ECTS credit points.
- (2) Some of the theoretical material is available as a correspondence degree course (e.g., e-learning).
- (3) The course is held on an in-service basis, alongside professional work. Courses can also be held during the course-free period.
- (4) Courses are only held in English.

§ 5 Requirements for Enrollment

- (1) The prerequisite for enrollment on the university course is the presentation of evidence of:
 - a) A completed course of university study or an equivalent course of study successfully completed at a recognized Austrian or foreign post-secondary education institution, each accounting for at least 300 ECTS credit points in the discipline of Dentistry;
 - b) Registration to practice the profession of dentist at the location of patient treatment because the course participants must treat patients outside the University Clinic of Dentistry Vienna in the facilities of their own dental occupation in accordance with the criteria learned in the curriculum in order to be able to handle the patient cases required for successful completion of the university course;
 - c) Knowledge of English is required (equivalent to Level B2/C1 of GER/CEFR or language examination and decision to be taken by the course director) that will permit the reading of scientific literature and the understanding of subject-specific lectures; also computer knowledge that allows trouble-free use of a teaching and learning platform as well as the use of literature databases;
 - d) At least 2 years of professional experience.
- (2) The application for enrollment must be accompanied by a letter of application and a curriculum vitae.
- (3) Proof of fulfillment of the listed prerequisites will be required from all applicants. The academic course director verifies the suitability of applicants based on the documents presented, especially the letter of application and, if need be, a personal interview.
- (4) Enrollment is only possible before the start of the course. The academic course director specifies the maximum number of course participants per course taking into account the number of university places available.

Exceptional cases concerning enrollment after the start of the course can only be approved by the curriculum director after proposal by the academic course director, inasmuch as evidence of the completion of equivalent syllabuses can be produced.

- (5) According to § 70 (1) in conjunction with § 51 (2) Z 22 UG the participants have to apply for course enrollment as extraordinary students. The enrollment of course participants is decided by the principal after proposal by the academic course director.

Part II: Study and Examination Regulations

§ 6 Course Syllabus

The university course in "Esthetic Dentistry" is comprised of the following:

Mandatory courses (LV)

	LV type ¹	Academ. hours (aS) ²	Self-study ³	ECTS	Examination procedure
MODULE 1_Orofacial esthetics and management with composite	VB	63	154	8	Written and oral performance verification, cooperation

- Evaluation of orofacial esthetics (9 aS)
- Composite – reconstruction for the purpose of esthetics, state-of-the-art materials science (9 aS)
- Update of the clinical use of composites and technology: Direct and indirect anterior restoration and reconstruction (18 aS)
- Emergency medicine and forensics (4 aS)
- Radiology (5 aS)
- Oral, dental and facial photographic documentation (9 aS)
- LINE_Scientific work: Scientific introduction (9 aS)

The module deals with the biological structural basis of facial and dental esthetics and with esthetic appreciation of the various social population groups. The module covers state-of-the-art material development with regard to biocompatibility and the technology of composite materials and imparts knowledge concerning correct indication and selection of the latest materials through to the restoration of functional occlusion by using various techniques to maintain long-term stability. This module is also concerned with state-of-the-art oral radiological diagnosis, clinical use of medications for oral diseases, and emergency medicine.

¹ VO = lectures | UE = exercises | PR = practicals | SE = seminars | WA = scientific work

Combined courses: VB = lecture with practical exercises | VS = lecture and seminar | VU = lecture and exercise | SK = seminar with practical | SU = seminar with exercise | PX = practice seminar | PU = practical exercise

² Semester (week) hours (1 SWS = 15 aS): The number of lectures / total number of mandatory courses is indicated in contact hours (presence times). Depending on the duration of a semester (15 weeks) a contact hour means 15 units of academic tuition hours (aS) each lasting 45 minutes.

³ Times for self-study are indicated in real-time hours.

MODULE 2_Esthetic management with ceramics: from inlay, crown, and bridge to veneer	VB	63	179	9	Written and oral performance verification, cooperation
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- Material development in esthetics; biomechanical load-bearing capacity, and biocompatibility (4 aS)
- Material ceramics and all-ceramic restorations (12 aS)
- Veneers of the anteriors – material, color and esthetics, laboratory equipment and preparation (16 aS)
- CAD/CAM technology: Crown and bridge prosthetics (16 aS)
- LINE_Scientific work: Scientific introduction (6 aS)
- LINE_Case presentation, case discussion (9 aS)

The module deals with material development in esthetics with regard to biomechanical load-bearing capacity and biocompatibility and imparts state-of-the-art knowledge concerning material ceramics and all-ceramic restorations. The module is intensively concerned with material, color and esthetics, laboratory equipment and preparation of veneers of the anteriors. CAD/CAM technology in crown and bridge prosthetics is dealt with in detail in this module.

MODULE 3_Use of laser in esthetic dentistry	VB	63	178	9	Written and oral performance verification, cooperation
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- Laser physics and safety standards (8 aS)
- Use of laser in restorative dentistry: Laser/tissue interaction; hard and soft tissue (8 aS)
- Use of laser in restorative dentistry: Removal of caries and preparation (8 aS)
- Use of laser in endodontics: Post crown management for the purpose of esthetics (16 aS)
- Use of laser in endodontics: Scientific background and clinical indication for the purpose of esthetics (8 aS)
- LINE_Scientific work (6 aS)
- LINE_Case presentation, case discussion (9 aS)

The module deals with the principles of the use of laser in dentistry, practical use for the removal of caries, and cavity preparation of teeth and therapeutic methods of root treatment. The module teaches state-of-the-art knowledge in the use of laser in restorative dentistry for the purpose of esthetics. After this module, participants are awarded certification for the use of laser in dentistry.

MODULE 4_Various methods of tooth bleaching	VB	63	150	8	Written and oral performance verification, cooperation
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- Etiology of tooth color change and clinical symptoms (4 aS)
- Overview of various bleaching methods - indication and contraindication (4 aS)
- Chemical tooth bleaching, photo bleaching, and special laser-assisted bleaching (24 aS)
- Etiology of hypersensitive tooth necks, traditional desensitization and laser desensitization (16 aS)
- LINE_Scientific work (6 aS)
- LINE_Case presentation, case discussion (9 aS)

The module deals with the mechanisms of various methods of tooth bleaching as well indications and contraindications thereof. State-of-the-art bleaching methods and possible side effects as well as treatment methods for hypersensitive tooth necks are taught theoretically within the scope of multiple lectures and practiced in exercises.

MODULE 5_Periodontal plastic surgery in the aspect of esthetics	VB	63	178	9	Written and oral performance verification, cooperation
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- State-of-the-art etiology and treatment of gingival hyperplasia (4 aS)
- State-of-the-art etiology and treatment of gingival recession (15 aS)
- Autologous and exogenous soft tissue augmentation; various surgical procedures (19 aS)
- Cortectomy - modified soft tissue in orthodontic treatment (6 aS)
- Interdisciplinary soft tissue management with periodontal surgery, orthodontics, and prosthetics (4 aS)
- LINE_Scientific work (6 aS)
- LINE_Case presentation, case discussion (9 aS)

The module deals with general soft tissue management and the etiology of gingival hyperplasia, recessions, and defects in order to take the appropriate clinical measures for prevention and treatment. By means of intensive practicals, state-of-the-art surgical procedures of soft tissue management are taught and skills in the interdisciplinary treatment of soft tissue modulation are subsequently intensified.

MODULE 6_Preprosthetic periodontal surgery and implantology in esthetic dentistry	VB	63	178	9	Written and oral performance verification, cooperation
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- Resective periodontal surgery and crown extension, conventional surgical procedure and laser surgery, lecture, practical, live surgery (12 aS)
- Regenerative periodontal surgery, conventional surgical procedure and laser surgery, lecture, practical, live surgery (12 aS)
- Application of bone augmentation materials and growth factors in (4 aS)

periodontal surgery	
• Wound healing and regeneration in healthy individuals and systemically diseased patients (osteoporosis, diabetes, ...)	(4 aS)
• Management of bone quality in implantology and implantation concept for the purpose of esthetics	(8 aS)
• Overview of various implant systems, block augmentation and "Guided Bone Regeneration" for the purpose of esthetics and "Socket Preservation", overview of various implant systems	(8 aS)
• LINE_Scientific work	(6 aS)
• LINE_Case presentation, case discussion	(9 aS)

The module imparts detailed knowledge of indications for regenerative and resective periodontal surgery, surgical procedures, and various conventional flap surgery as well as the use of laser in periodontal surgery. The module deals with appropriate decision-making for proper use of biomaterials and growth factors as well as with the consolidation of knowledge concerning preoperative and postoperative management in complex cases.

MODULE 7_Implantology and implant prosthetics in the aspect of esthetics	VB	63	177	9	Written and oral performance verification, cooperation
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• Immediate-loading implantation and template-guided implantation	(8 aS)
• Implant prosthetics management systems for the purpose of esthetics	(8 aS)
• Full-mouth restoration and reconstruction for teeth in the case of erosion and abrasion patients	(8 aS)
• Digital implant prosthetics: Use of CAD/CAM, exercise in planning software	(8 aS)
• Digital implant prosthetics: Navigated implantation and exposure; intraoral digital impression taking	(8 aS)
• Digital implant prosthetics: Interdisciplinary digital workflow	(8 aS)
• LINE_Scientific work	(6 aS)
• LINE_Case presentation, case discussion	(9 aS)

The module is concerned with implantological techniques, immediate-loading implantations, and computer-based guided implant dentistry management for the purpose of esthetics. Intensive practical exercises teach the state-of-the-art procedure for full-mouth reconstruction and esthetic management for eroded and abraded teeth. This module teaches state-of-the-art knowledge and technology of digital medicine and use of intraoral scanning, the 3D printer, and CAD/CAM in splint treatment and implant reconstruction, and the use of state-of-the-art procedures is practiced.

MODULE 8_Interdisciplinary esthetic dentistry	VB	63	178	9	Written and oral performance verification, cooperation
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- Diagnosis of function and dysfunction of occlusion; treatment concept and instrumental analysis methods *(8 aS)*
- Treatment of TMJ issues and rehabilitation of occlusion, diagnostic system *(8 aS)*
- Preprosthetic and pre-orthodontic splint therapy *(24 aS)*
- Combination of esthetic and functional restoration of occlusion *(8 aS)*
- LINE_Scientific work *(6 aS)*
- LINE_Case presentation, case discussion *(9 aS)*

The module deals with the state of the art of functional and dysfunctional occlusion, especially in the case of TMJ issues that are triggered by traumatized occlusion. By means of lectures and intensive practical exercises the state-of-the-art procedure of splint therapy is taught in cases with bite elevation for full-mouth reconstruction or in the case of preprosthetic and preorthodontic TMJ treatment. This module is also concerned with interdisciplinary treatment of cases with severe, structural and functional dentition disorders, caused by aplasia and tumor resection or periodontal diseases.

	Academ. hours	ECTS
Modules 1-8	504	70
Master thesis	-	20
TOTAL	504	90

Modules - descriptions

Apart from module-specific and practical content, the following will be held in individual modules for accompaniment:

- (i) Scientific work (Modules 1-8)
- (ii) Case presentation and case discussion (Modules 2-8)

§ 7 Practice

The university course participants shall have an opportunity to conduct patient treatment independently (premises and patient base) outside the university course in order to be able to handle the patient cases required for successful completion of the university course. A license to treat patients in Austria is not required if patient treatment takes place abroad. Compliance with the legal regulations for independent treatment of patients abroad is the responsibility of the university course participants.

§ 8 Recognition of examinations

On application by the course participant the curriculum director will make a decision concerning the recognition of work completed at university institutions. A maximum of 20 % of the ECTS credits of the examinations specified in the curriculum can be recognized.

§ 9 Master thesis

- (1) A master thesis shall be written within the scope of the university course in "Esthetic Dentistry". Permission to defend the master thesis requires that the examinations in modules 1-8 have been completed.
- (2) The master thesis shall always be written by course participants in the form of an individual thesis. Partner theses and group theses are, however, permissible if the work conducted by the individual course participants can be evaluated separately.
- (3) The topic of the master thesis can be selected from the field of the university course in "Esthetic Dentistry". The topic of the master thesis shall be decided in agreement with the tutor and be approved by the academic course director of the university course. Verification of the quality of the topic of the master thesis shall take place in a specific quality circle made up of at least three persons from the academic university staff of the Medical University of Vienna (§ 94 Para. 2 UG) with authorization to teach at a university or an equivalent qualification and is conducted by analogy with the procedure in the diploma course of study in Dentistry (N 203).
- (4) As equivalent evidence for the master thesis, an original scientific paper accepted by a peer-reviewed top-class or standard journal for publication or already published by the same can be presented, provided it was written in the period of participation in the university course. The course participant shall be a senior author and the thesis must be written in English. In addition, the publication for successful recognition as substitute work for the master thesis of the university course in "Esthetic Dentistry" shall address a topic of the university course and take the form of personal work, with an introduction, objectives, publication, and discussion. Equivalence of the scientific work shall be decided by the academic course director after submission to the quality circle of the University Clinic of Dentistry (QZ).
- (5) Preparation of the written master thesis shall be accompanied by a tutor who also evaluates it. Course participants shall have a right of nomination depending on the available tutors. Course participants shall search for tutors on their own. Tutors must meet the criteria by analogy with the tutors for diploma theses at the Medical University of Vienna and be approved by the academic course director of the university course.
- (6) For preparation of the master thesis the existing guidelines for writing the diploma thesis of the diploma course of study in Dentistry (N 203) shall apply.
- (7) The master thesis approved by the tutor shall be sent to an external expert for peer review, who conducts an evaluation based on a template. The peer reviewer of the master thesis shall be appointed by the course director and shall meet the criteria for tutoring diploma theses at the Medical University of Vienna.
- (8) If the master thesis is given a negative assessment, § 17a Para. 12 of the 2nd section of the statutes of the Medical University of Vienna, Bulletin of academic year 2003/2004, No. 22, 9th part, as amended ("Statutes"), shall apply.

§ 10 Presence obligation

- (1) Attendance of the modules / courses is obligatory. The amount of justified absences per course may not exceed 20% of the specified presence times. At all events at least 80% of the specified presence times of courses shall be completed.

- (2) If the number of missed hours exceeds the permissible amount per course, the academic course director shall decide, on application in writing by the student, whether the master thesis may be defended, whether the module (the course) has to be repeated, or whether substitute work can be performed.
- (3) Justified absences (e.g., illness, bereavement) from courses can be tolerated to a certain extent (figure for guidance: 20% of total course duration). Relevant evidence of absences shall be produced. If permitted by the topic of the course, in justified isolated cases (e.g., absences of more than 20%) opportunities for repetition and / or substitute work can also be offered. The necessity to produce substitute work or repeat the module (the course) shall be decided by the academic course director in individual isolated cases.

§ 11 Examination regulations

- (1) Examinations in the university course of "Esthetic Dentistry" are comprised of:
 - Study-accompanying examinations in the examination subjects
 - Master thesis
 - Final board examination (incl. defence of the master thesis)

- (2) Study-accompanying examinations:

These aim to establish whether the course participants have gained a thorough overview of the learning objectives. Within the scope of the university course in "Esthetic Dentistry" the following types of examination shall be used:

1. Course examinations:

These are examinations at the end of a course. They can be held in the form of a final oral or written examination.

Participants shall be informed of the examination method in a suitable manner prior to commencement of the course.

- (a) Oral examination:

Oral examinations are held by the examiners in the form of one-to-one interviews or in the form of a presentation.

- (b) Written examinations:

In the case of written examinations the examination questions shall be answered in writing.

2. Courses of an inherent examination nature:

Assessment in the case of courses of an inherent examination nature does not take place on the basis of an individual examination action at the end of the course but on the basis of regular written (e.g., seminar paper) and / or oral contributions (e.g., oral presentation) by participants, continuous monitoring / verification of the prescribed presence obligation.

The examiner in study-accompanying examinations is usually the lecturer whose course the course participant has attended.

(3) Defence of the master thesis

The master thesis shall be defended within the scope of a public examination before the board of examiners. The prerequisites for participating in defence of the master thesis are as follows:

- Attendance of all the modules of the university course (at least 80% presence)
- Positive completion of all study-accompanying examinations
- Positive assessment of the master thesis

(4) At the end of the university course in "Esthetic Dentistry" there will be a final board examination that covers the following content:

- Scientific discussion
- Demonstration of a research design followed by implementation
- Verification of the knowledge of scientific literature
- Knowledge of the theoretical and practical content of the curriculum and the scientific literature recommended in the courses

(5) The examination board shall be made up of three scientifically suitable members. The members of the examination board shall be appointed from the academic course staff, whereby at least one person shall hold authorization to teach at a university (§§ 102ff UG) or an equivalent qualification and be an employee of the Medical University. One member shall be appointed as chair of the examination board. The resolutions of the examination board shall be passed by a majority of votes. The curriculum director can also be called in to (final) board examinations as an examiner.

(6) Non-attendance of an examination

If examination candidates are prevented from attending an examination by illness or another reason worthy of consideration and if they have announced that fact in writing or orally in good time, the relevant examinations shall be repeated as soon as possible.

(7) The examination procedure shall conform to §§ 72ff UG and the relevant provisions (§§ 14 ff) of the 2nd section of the Statutes of the Medical University of Vienna.

§12 Methods of grade allocation

(1) Assessment shall conform to §§ 72 ff UG and the relevant provisions (§§ 14 ff) of the 2nd section of the Statutes of the Medical University of Vienna.

(2) Positive completion of the course shall be assessed in the form of an overall grade. The overall grade shall be a "pass" if all the examinations prescribed in this curriculum have received a positive assessment and the overall assessment shall be "with distinction" if in none of the subjects the assessment was worse than "good" and in at least half of the subjects the assessment given was "very good".

(3) The overall grade is made up of

- Study-accompanying examinations
- Master thesis
- Defence of the master thesis
- Final board examination

§ 13 Premature termination

Training shall be deemed to have been discontinued if the course participant is absent from more than 20% of the (tuition) hours per course / module without any excuse. In the event of excused absence for more than 20% of the (tuition) hours the course participant shall attend the theoretical training at a later date, depending on what is being offered and the available places.

§ 14 Completion and academic degree

- (1) The university course in "Esthetic Dentistry" has been completed successfully if all the prescribed examinations and the master thesis have received a positive assessment in accordance with the examination regulations.
- (2) Successful completion of the university course shall be evidenced by means of a final certificate and the academic degree of "Master in Clinical Dentistry - Esthetic Dentistry" – abbreviated to "MClinDent (Esthetic Dentistry)" – shall be awarded in the form of notification by the Medical University of Vienna.
- (3) The final certificate shall list the individual modules and the courses assigned to them along with their total number of hours and their individual grades. Courses where the success of participation was evaluated as "successfully attended / unsuccessfully attended" shall be listed in addition. The topic and the overall grade of the written master thesis shall also be indicated. The final certificate must show the ECTS credit points.

§ 15 Effective date

This curriculum shall enter into force on the first day of the month that follows its official announcement.