

DENTAL TECHNICIAN

80166

Educational institution	TALLINN HEALTH CARE COLLEGE	
Code of educational institution	70003980	
Title of the curriculum	HAMBATEHNIK	
Title of the curriculum in English	DENTAL TECHNICIAN	
Higher education level	Professional higher education	
Curriculum code in the Estonian Education Info-System (EHIS)	80166	
Data about the right for conducting studies in the curriculum	Curriculum belongs to the "Medicine" study programme group in which there is a right to conduct studies. 11.07.2019 Regulation No 62 "Standard of Higher Education" issued by the Government of Estonia.	
Primary registration of the curriculum	23.05.2005	
Approval date of the version of the curriculum in the educational institution	The curriculum has been approved by the Council of Dental Technician Curriculum on 07.05.2020. The curriculum has been approved by the Tallinn Health Care College Council with Decision No 2.4 from 26.05.2020.	

Study area	Health and well-being
Field of studies	Health
Curriculum group	Medicine
Main field of study (or studies) of the curriculum and their volume (ECTS)	Dental Technician 210 ECTS
Minor field (or fields) of study and other possible specializations in the curriculum and their volume (ECTS)	The curriculum has no minor fields of study or specializations
Forms of study	Daytime learning
Nominal length of studies	3,5 years
Volume of the curriculum in European credit point system (ECTS)	210
Volume of compulsory subjects (ECTS)	205
Volume of elective subjects (ECTS)	5

Study language	Estonian
Other languages needed for achieving the learning outcomes	English
Admission requirements	Certificate of the secondary or vocational secondary education or equivalent qualification.

Aim of the curriculum

The aim of the Curriculum of Dental Technician is to provide internationally recognized dental technicians with professional higher education, who possess knowledge and skills to prepare dental prostheses and orthodontic appliances as well as conducting applied research, and have readiness to develop the field of the profession and engage in lifelong learning.

Learning outcomes of the curriculum

- 1. Has a systematic overview of main theoretical concepts of dental technology, material qualities and technologies used in making dental prostheses.
- 2. Knows the possibilities of application of the profession of dental technician and is aware of current issues of the field, is able to formulate, analyse and connect them to other specialties and offer different solutions.
- 3. Orientates in evidence-based professional information, is able to independently collect, critically analyse, and use the information.
- 4. Is able to prepare dentures and orthodontic treatment appliances using appropriate methods and technologies, is able to critically plan and assess potential consequences.
- 5. Possesses necessary skills in management, entrepreneurship and teamwork needed to work as a dental technician.
- 6. Is able to explain dental technology problems orally and in writing in Estonian and in English, using modern tools of information technology and communication technology.
- 7. Is able to apply acquired knowledge and skills in his/her work, is ready to work as a dental technician and is guided by the professional ethics.
- 8. Understands the principles of lifelong learning and opportunities and possibilities of professional development, keeps abreast of the latest achievements in dental technology.

Conditions of fulfilling the curriculum		
Curriculum contains:		
9 modules (210 ECTS)		
Dental Restorations I	48 ECTS	
Dental Restorations II	42 ECTS	
Dental Restorations III	36 ECTS	
Study of Function	12 ECTS	
Basics of Health Care	23 ECTS	
Basics of Material and Colour Studies	8 ECTS	
Professional Development	16 ECTS	
Research Methodology	20 ECTS	
Elective Subjects	5 ECTS	
Volume of Practical Training	59 ECTS	

Volume of Graduation Thesis	5 ECTS	
Volume of Elective Subjects	5 ECTS	

Options for passing the curriculum	Students are required to choose and pass elective subjects within the College to the extent of 5 ECTS.	
Graduation requirements	Completing the curriculum in full and receiving a positive grade in defending the graduation thesis.	
Type of diploma issued upon graduation	College graduate is awarded the Diploma of Professional Higher Education <i>Meditsiiniteaduse</i> bakalaureus Bachelor of Medicines (BSc)	
Documents issued upon graduation	Diploma of Professional Higher Education with academic transcript and Diploma Supplement in English.	
Possibilities for continuing studies	Master`s studies	
Access to labour market	Has acquired the learning outcomes for working as a dental technician.	
Additional information	http://www.ttk.ee/et/kontaktileht	

LETTER OF EXPLANATION FOR THE CURRICULUM OF DENTAL TECHNICIAN

Since the academic year 2020/2021 the following changes have been introduced to the Curriculum of Dental Technician:

- 1. In cooperation with other Tallinn Healt Care College's curricula, a joint subject "Health Care Technology and e-Health" has been developed in the extent of 2 ECTS.
- 2. The volume of the subject "Combined Prosthesis" has been decreased from 8 ECTS to 6 ECTS. The content of the subject has not been changed; the volume of practical tasks has been reduced.
- 3. Deriving from the previous changes, the module "Dental Restaurations II" has been decreased by 2 ECTS (before 44 ECTS and after change 42 ECTS). The module "Professional Development" has been increased by 2 ECTS (before 14ECTS and after 16 ECTS).
- 4. Elective subject VA17/PH 5EAP has been entitled Oral Hygiene and Dentures Care VA20/SPH.

In the Curriculum of Dental Technician, the title of the curriculum, conditions of commencement of studies, the nominal length and volume, study language, possibilities of specialization and the classification of the curriculum content have not been changed.

THE EXPECTED FIELD OF ACTIVITY OF THE GRADUATES

The main field of activity is the profession of dental technology, particularly the work of a dental technician in the dental technology laboratory. The curriculum also allows graduates to be managers in an organisation manufacturing dentures, in a company mediating dental technical products in Estonia as well as abroad and as a lecturer of the Chair of Dental Technology. Dental technicians are able to continue their education in Master's studies.

BASES OF THE CURRICULUM AND ORGANIZATION OF PRACTICAL TRAINING

The curriculum is based on modern evidence-based information, the thorough knowledge and application of which will ensure esthetics, functionality and hygiene of dental restorations and orthodontic appliances. The dental restorations and orthodontic appliances manufactured on this basis improve a person's quality of life and do not entail any significant risks to his/her health and the surrounding environment. In all specialty subjects students will be familiarized with professional terminology, clinical and laboratory stages of preparing dental prostheses, classification of dental restorations and orthodontic appliances as well as materials, apparatus and other equipment used. With every type of restoration student has to complete basic laboratory stages, consider principles of function, occlusion and esthetics. Student must be able to evaluate the stages of work and analyse all aspects and qualities of prepared work as well as be able to document it.

In order to register theoretical knowledge and acquire practical skills, students get versatile practical experience in different practical training institutions in addition to practical training at the college.

The curriculum is based on the following legal acts and basic documents of the field of activity:

- Republic of Estonia Education Act (30.03.1992)
- Higher Education Act (20.02.2019);
- Standard of Higher Educaion, Government of the Republic Regulation (11.07.2019);
- <u>Professional Standard, Master Dental Technician, level 6</u> (28.11.2018);
- Statute of Tallinn Health Care College (05.01.2015);
- <u>Statute of Tallinn Health Care College on Outcome-Based Curriculum (22.05.2018).</u>

REQUIREMENTS SET FOR THE CURRICULUM QUALITY

The Curriculum of Dental Technician is in accordance with the action lines of Tallinn Health Care College and the internal quality standards of the College. The objectives and outcomes of the curriculum meet the general requirements of professional higher education and the requirements necessary for ensuring professional activities of a dental technician.

The curriculum content and curriculum development is monitored and directed by the Council of the Curriculum, the membership of which includes representatives of the Chair of Dental Technology, students, alumni, employers, and an external expert. The Curriculum Council analyses the developments in the field of dental technology and, if necessary, makes suggestions for improving or changing the curriculum, as well as for the development of the learning environment. The lecturers possess necessary professional qualifications for conducting the studies.

The necessary quality and the professional qualification of the graduates of the evidence-based curriculum are ensured by:

- the compliance of the curriculum with the requirements of the Standard of Higher Education;
- the compliance of the curriculum with the requirements of the Professional Standard;
- modernization of the curriculum by teaching new technologies;
- development of the professional and pedagogical competences of lecturers;
- ensuring internationalization of the curriculum via academic and student mobility and university cooperation; intensive cooperation with other countries via LLP/Erasmus intensive programs; lecturer-mobility;
- the knowledge and skills of the graduates can be evaluated on the basis of achievement of the goals and learning outcomes of the curriculum;
- comprehensive development and enhancement of the cooperation between lecturers and students and their skills of presenting learning outcomes.

Upon achievement of learning outcomes, a variety of teaching methods are used among which there are lectures, seminars, e-learning, group work, presentations, discussions, debates, acting as an opponent, reviewing, etc., but as well other methods necessary for conducting research. On development of practical skills, general and direct supervision are added, demonstrations, study visits, practical manual activity, self-assessment, analysis of prepared work, design tasks, etc.

Practice is conducted in dental technology laboratories in Tallinn and other parts of Estonia. In choosing the practical training institutions, the possibilities of achieving needed skills and the availability of necessary technology are taken into account. The goal is to allow the student to pass his/her practice in 3 or 4 different practical training institutions in order to acquire skills needed to use various technological possibilities and get experience and recommendations from different supervisors.

MODULES AND SUBJECTS OF THE CURRICULUM, AIMS AND LEARNING OUTCOMES

Module title: Dental Restoratio	one I	Maht: 48 ECTS	
Aim			
Aim	To acquire skills necessary to produce acrylic partial and total dentures.		
Learning outcomes	 Uses professional terminology. Knows and recognizes the classifications of dental arch defects and acrylic prostheses, the indications and contraindications of prosthetic dentistry, the stages of preparing a denture. Is able to produce removable acrylic partial and complete dentures according to the principles of occlusion, function and esthetics, and by choosing and using materials, apparatus and equipment according to the nature of a task. Is able to describe and evaluate the work process and prepared work, analyse the success or faulty sides and its reasons. Describes and documents dental restorations during the practice, technologies, resources and the teamwork experienced. 		
	odule: subject-based method		
Subjects			
Code	Subject title	Maht	
2DR117/AP1	Acrylic Prostheses I	8 ECTS	
Aim	To acquire skills to produce esthetic and functional acrylic partial and complete dentures and knows the clinical and laboratory stages of producing dentures.		
Learning outcomes	 Uses professional terminology, knows the main stages of prosthetic dentistry. Knows the arch defects and classifications of acrylic dentures, indications and contraindications of prosthetic treatment, the stages of preparing a prosthesis. Is able to produce acrylic removable complete dentures by taking into consideration the principles of function, occlusion and esthetics. Chooses and uses materials, apparatus and equipment according to the type of work and following instructions as well as requirements for safety measures. 		
Code	Subject title	Volume	
2DR117/AP2	Acrylic Prostheses II	8 ECTS	
Aim	and knowledge of the clinical and laboratory	To acquire skills to produce esthetic and functional acrylic partial prosthesis and knowledge of the clinical and laboratory stages of producing a denture.	
Learning outcomes	 Considers the principles of function, occlusion and esthetics in preparing acrylic prostheses. Can produce acrylic removable partial prosthesis. 		

	3. Can describe and evaluate the work process and the prepared work, analyses the technological causes of successful and unsuccessful work.	
Code	Subject title	Volume
2DR117/PrAP	Practical Training – Acrylic Prostheses	7 ECTS
Aim	To reinforce the previously acquired skil partial and complete dentures in a work envi	ronment.
Learning outcomes	 Uses professional terminology in his/her practical training report and in presenting the practical training documentation. Considers the principles of function, occlusion and esthetics in producing a prosthesis. Knows and recognizes different instruments of processing and finishing prostheses and can process acrylic plate prostheses after polymerization. Can describe and evaluate the work process and the prepared work, to analyse the technological, instructing-related and organizational causes of successful and unsuccessful works. Can document and describe practical training environment, instruction, work organization, technologies, dental restorations prepared, problemsolving, etc. 	
Code	Subject title	Volume
2DR117/PrDE	Pre-Diploma Practical Training	25 ECTS
Aim	To reinforce all knowledge and skills acquired when completing the Curriculum of Dental Technician.	
Learning outcomes	 Knows and recognizes the laboratory and clinical stages of preparing removable dentures, fixed dentures and orthodontic appliances, is able to prepare them and possesses readiness to forward his/her professional knowledge and skills. Is able to analyse and evaluate in written form as well as during the seminars the work process and final result in terms of instructional and organizational components. Is able to compare the performing of similar or same types of work in different environments, the environments themselves and practical training institutions. 	

Module title:		Volume: 42 ECTS	
Dental Restoration	as II	Volume: 42 LC 15	
Aim	To acquire technological skills of preparing and orthodontic appliances.	g partial and combined prostheses	
Learning outcomes	 Uses professional terminology. Knows and recognizes the classifications of dental arch defects and casted framings of partial prosthesis as well as orthodontic appliances, the indications and contraindications of prosthetic dentistry, the completing stages of denture. Considers the principles of function and occlusion in preparing partial and combined prostheses and orthodontic appliances. Can describe and evaluate the work process and the prepared work, to analyse the technological, instructing related and organizational causes of successful and unsuccessful works, is good at teamwork. 		
Subjects	dule: subject-based method		
Code	Subject title Volume		
2DR217/PBP1	Partial or Bugel Prostheses I	10 ECTS	
Aim	To acquire technological skills for preparing partial prosthesis during practical rehearsal works.		
Learning outcomes	 Uses professional terminology of the subject. Considers the principles of esthetics, function, and occlusion in producing a partial prosthesis. Knows how to add final finish to the partial prosthesis. Can describe and evaluate the work process and the prepared work, to analyse the technological, instructing related and organizational causes of successful and unsuccessful works. 		
Code	Subject title	Volume	
2DR217/PBP2	Partial or Bugel Prostheses II	5 ECTS	
Aim	To acquire knowledge on the elements of partial prosthesis and the technological methods for producing and modeling partial prosthesis framework.		
Learning outcomes	 Considers the principles of esthetics, function, and occlusion in producing a partial prosthesis. Knows how to use a parallelometer. Knows the requirements set for a framework of a partial prosthesis; location, esthetics, functionality, hygiene. Can add final finish to a partial prosthesis. 		
Code	Subject title	Volume	
2DR217/OD	Orthodontics	7 ECTS	

Aim Learning outcomes	To acquire an overview of the development stages of face, skull and morphological-functional characteristics of occlusion, occlusion anomalies, the classification of orthodontic appliances and the principles of orthodontic treatment; the principles of constructing orthodontic appliances and the requirements for the appliances. 1. Knows and recognizes the principles of constructing orthodontic appliances and can use professional terminology. 2. Knows and recognizes the classifications of occlusion and orthodontic appliances, the indications and contraindications of orthodontic treatment, the completing stages of orthodontic appliances. 3. Can produce different orthodontic appliances, knows their advantages and disadvantages, is aware of differences in orthodontic treatment in children and adults, can interpret a doctor's treatment plan. 4. Can describe and evaluate the construction process and the finished appliance.	
Code	Subject title	Volume
2DR217/PrPP1	Practical Training – Partial Prostheses I	6 ECTS
Aim	To reinforce the acquired skills of preparing prostheses and orthodontic treatment appliar	
Learning	1. Can prepare diagnostic gypsum models.	
	 Knows the elements of partial prostheses and can model and produce a casted framework partial prosthesis according to the rules of work safety. Can describe and evaluate the work process and the finished work, to analyse the technological, instructing related and organizational causes of successful and unsuccessful works. In the practical training report, compares the reasons for choosing certain dental restorations, work regulations, technologies, resources, etc. in 	
Code	different practical training institutions. Subject title Volume	
2DR217/PrPP2	Practical Training – Partial Prostheses II	8 ECTS
Aim	To reinforce the knowledge and skills in constructing esthetic and functional partial prostheses and orthodontic appliances in clinical cases.	
Learning outcomes	 Knows and recognizes the requirements for a framework of a partial prosthesis (measures, location, esthetics, functionality, hygiene, etc). Knows and recognizes the requirements for orthodontic appliances (measures, location and effect of clasps and springs). Continues to evaluate the work process and prepared work, analyses the technological, intruction-related and organizational reasons to successful and unsuccessful works. In the practical training report, is able to compare the reasons behind the choices of dental restorations, work regulations, technologies and resoures used. 	
Code	Subject title Volume	

2DR220KP	Combined Prostheses	6 ECTS
Aim	To acquire knowledge on combined pro-	stheses and their possibilities of
	usage, on different types of attachments a	nd the required skills to produce
	basic combined prostheses.	-
Learning	1. Knows and recognizes the c	assification, indications and
outcomes	contraindications of using combined	prostheses, knows the stages of
	production.	
	2. Can produce root attachments and attach an overdenture on it.	
	3. Can produce crowns with attachments and attach a partial prosthesis with	
	a metal cast framework on it.	_

Module title:		Volume: 36 ECTS
Dental Restoration	ns III	
Aim	To acquire knowledge to produce full casted, full ceramic, metal ceramic and metal-plastic crowns, and bridge-dentures, therewith acquiring theoretical knowledge and techniques of practical work.	
Learning outcomes Evaluation of mo	 Uses professional terminology. Knows and recognizes the classifications of dental defects and fixed dentures, the indications and contraindications of prosthetic dentistry, the clinical and laboratory stages of completing dentures. Can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures. Is able to produce crowns, bridge-dentures, inlays and other fixed dentures. 	
Subjects		
Code	Subject title	Volume
2DR317/FP1	Fixed Prostheses I	13 ECTS
Aim	To acquire knowledge to produce full ca bridge-dentures.	sted, metal ceramic crowns and
Learning outcomes	 Knows and uses professional terminology. Knows and recognizes the classifications of dental defects and fixed dentures, the indications and contraindications of prosthetic dentistry, the clinical and laboratory stages of completing dentures. Learns to select and use materials, apparatuses and work instruments according to the work's nature by observing instructions and requirements for safety measures. Learns to prepare a combined model. Learns to process and finish fixed dental restorations. 	
Code	Subject title	Volume
2DR317/PrFP1	Practical Training – Fixed Prostheses I	7 ECTS
Aim	To reinforce the knowledge and skills to produce full casted and metal ceramic crowns as well as bridges in clinical cases.	
Learning outcomes	 Considers the principles of esthetics, function and occlusion in producing a denture. Can prepare a combined model and can mount the combined gypsum models into various articulators. Can set sprues to wax models and insert fixed dentures to be produced as metal cast, can produce a metal cast. In the practical training report is able to compare the reasons behind the choices of dental restorations, work regulations, technologies and resources used. 	

Code	Subject title	Volume
2DR317/FP2	Fixed Prostheses II	10 ECTS
Aim	To acquire skills to produce metalloplastic and full ceramic crowns and bridge-prostheses.	
Learning outcomes	 Considers the principles of esthetics, function and occlusion in producing prostheses. Learns to use CAD/CAM circonium restorations, technologies of preparation and handling. Can process and finish fixed dental restorations. 	
Code	Subject title	Volume
2DR317/PrFP2	Practical Training – Fixed Prostheses II	6 ECTS
Aim	To reinforce the knowledge and skills to produce esthetic and functional full casted and metalloceramic crowns in clinical cases.	
Learning outcomes	 Is able to make sprues and insert full-ceramic crowns for pressurization. Knows different materials needed to produce fixed prostheses and the requirements for handling. In the practical training report, is able to compare the reasons behind the choices of dental restorations, work regulations, technologies and resources used. 	

Module title:		Volume: 12 ECTS
Study of Function		volume. 12 LC 15
Aim	To acquire skills on the principles of occlusion, articulation and esthetics on producing dental restorations and to understand the connection between morphology and occlusion.	
Learning outcomes Evaluation of mo	 Uses the professional terminology of esthetics, occlusion and articulation. Knows and recognizes the internal relation between occlusion and chewing, between speech and the outlook of face, the principles of occlusion therapy. Understands the general connections between morphology and occlusion, can differentiate the morphological structures on tooth surface and can name them. Can model teeth and perform wax-ups that correspond to the tooth's morphological features and harmonize with natural teeth, considering function, occlusion and esthetics. 	
Subjects		
Code	Subject title	Volume
2FÕ17/EFO	Esthetics, Function and Occlusion	6 ECTS
Aim	To acquire knowledge and skills to connect the principles of esthetics, occlusion and articulation with these skills of producing dental restorations; on the associations of morphology and occlusion, to produce esthetic and functional dental prostheses.	
Learning outcomes	 Understands and uses the terminology of esthetics, occlusion and articulation. Knows and recognizes the most important factors influencing esthetics and occlusion, the biomechanics of stomatognatic system, the criteria of optimal functional occlusion, the connections between lower and upper teeth in case of different occlusions. Is able to choose teeth according to the size, shape, colour and occlusion anomaly. Knows and is able to shape esthetic gingival line taking into account the anatomy and hygienic requirements of the mouth. 	
Code	Subject title	Volume
2FÕ17/HM	Morphology of Teeth	3 ECTS
Aim	To acquire knowledge on the connections between teeth morphology and occlusion and provide skills to model an esthetic crown to the artificial tooth root according to the morphological characteristics of a tooth.	
Learning outcomes	 Knows, recognizes and uses professional terminology. Understands general connections between morphology and occlusion, can detect different morphological structures on the surface of the tooth and is able to name them. Is able to model teeth and create wax-ups, which are in accordance with 	

	morphological characteristics of a tooth and harmonize with natural teeth, taking into consideration function, occlusion and esthetics.	
Code	Subject title	Volume
2FÕ13/ESO	Specialty Intense Studies	3 ECTS
Aim	To acquire skills to connect the principles of occlusion and articulation with producing dental restorations and understands the connection between morphology and occlusion.	
Learning outcomes	1. Knows and recognizes the internal relation between occlusion and mastication, between speech and the face, the principles of occlusion therapy. 2. Uses occlusion compass in modeling dental crowns and is able to consider function, occlusion and esthetics in preparing dental prostheses.	

Module title:		Volume: 23 ECTS
Basics of Health C	are	volumev 25 EG15
Aim	To acquire basic knowledge needed for the professional activities on the function of human organism, organ systems and their normal and pathological functioning; in-depth knowlege on the post-prosthetic hygiene and pathology of teeth and oral cavity. To acquire knowledge on the theoretical bases of the field of public health, the principles of public health policies and safe work environment.	
Learning outcomes	 Knows the structure and functioning of human organism, the biological basics of functioning. Possesses knowledge on the post-prosthetic hygiene and diseases of teeth and oral cavity. Knows the nature of pathological and genetic processes and their action mechanisms. Is familiar with the main principles of legislation, public health and legislation of work health care as well as the criteria of assessing and improving the health condition of the population. 	
Evaluation of mod	dule: subject-based method	
Subjects		
Code	Subject title	Volume
AnF17	Anatomy and Physiology	6 ECTS
Aim	To acquire basic knowledge in anatomy and	physiology.
Learning outcomes	 Uses appropriate anatomy and physiology related terminology. Knows and is able to explain the structure of the human body and the mechanisms regulating its functioning and development. Knows the shape, structure and location of organs in human body by body systems. 	
Code	Subject title	Volume
HaOp17	Pathology	5 ECTS
Aim	To acquire foundation knowledge about causes and onset of diseases, signs and disease-related changes in the human body.	
Learning outcomes	 Knows fundamental processes and concepts of general pathology. Knows etiopathogenesis and pathogenesis of most prevalent diseases, and ways to prevent the diseases treating each organ system separately. Has basic knowledge about microbiology and function of the immune system, most common micro-organisms and diseases caused by them affecting human functioning. Knows genetic bases and understands the nature of heredity and mutability, has foundation knowledge about more common chromosomal and genetic diseases, and possibilities to apply genetics in medicine. 	
Code	Subject title	Volume
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RaTer17	Public Health	2 ECTS
Aim	To form knowledge about theoretical foundations and functions of public health, public health policy principles, and give an overview of the situation and organizational arrangement of public health in Estonia.	
Learning outcomes	 Understands the nature of public health field, tasks, public health policy principles, and is able to interact health factors having effect on an individual and the community. Knows most common health problems of population in Estonia and activities within the frames of the National Health Development Plan to prevent diseases and promote health. Has an overview of the organizational arrangement of public health in Estonia and creates connections between activities of different institutional sectors and levels. 	
Code	Subject title	Volume
TO17	Occupational Safety	3 ECTS
Aim	To acquire first aid skills, ability to act safel case of fire hazard.	y in the work environment and in
outcomes	 Knows the principles of quality and risk management in health care organization. Is able to assess risk factors in the work environment and develop a risk analysis. Knows, how to use ergonomic job methods and promote health at workplace. Is able to give first aid without any medical devices. Is able to act in case of fire hazard. 	
Code	Subject title	Volume
2THA17/AF2	Anatomy and Physiology II	4 ECTS
Aim	To acquire knowledge on the anatomy and and the ability to determine teeth based on the state of	1
Learning outcomes	 Knows the anatomy and physiology of the skull. Is able to explain the structures of an oral cavity (mucous membranes, salivary glands, frenum, etc.) and their importance in preparing dentures. Knows the structure of teeth and is able to identify teeth according to their characteristic features. Knows the anatomical shape and structure of teeth. 	
Code	Subject title	Volume
2THA17/SHH	Oral Hygiene and Pathology	3 ECTS
Aim	To acquire knowledge on post-prosthetic hygiene and diseases of teeth and oral cavity, on damage caused by prostheses and radiographic changes.	
Learning outcomes	 Knows, recognizes and uses professional terminology. Possesses knowledge on diseases of oral cavity caused by microorganisms. 	

- 3. Has an overview of the microflora of oral cavity, gums and teeth and knows the main principles of hygiene concerning oral cavity and postprosthetic situation.
- 4. Possesses knowledge on radiographic changes.
- 5. Knows the damage caused by prostheses.6. Has an overview of injuries of facial bones as well as of maxilla and mandibula.

Module title:		Volume: 8 ECTS
	and Colour Studies	, June 6 Le 15
Aim	To acquire knowledge on the materials used to produce dental prostheses, their physical and mechanical properties and develop the skills of colour perception.	
Learning outcomes	 Knows, recognizes and uses specialty terminology. Knows and recognizes the history of the materials used to produce dental prostheses, methods or producing, their physical and chemical properties based on the study of material strength. Knows and recognizes the mutual suitability of the materials used, the classification of materials and is able to analyse the possible mistakes made on handling different materials. Knows and recognizes the colours of light and object, wavelengths of specter colours, and can connect them with tooth shade guides and with natural tooth colours. 	
Evaluation of mo	odule: subject-based method	
Subjects		
Code	Subject title	Volume
2MVA17/MÕ1	Material Studies I	3 ECTS
Aim	To acquire basic knowledge on the technologies of preparing materials used to produce dental prostheses, their composition, structure and advantages as well as disadvantages, mutual suitability and classification of materials used.	
Learning outcomes	 Uses the professional terminology of the field. Knows the physical and mechanical properties of the materials used in dental technology, methods of their determination. Is familiar with the effect of disinfection agents on different dental technology materials. 	
Code	Subject title	Volume
2MVA17/MÕ2	Material Studies II	3 ECTS
Aim	To acquire knowledge on the materials and technologies in preparing the materials to produce dental prostheses, their consistence, structure, advantages, classification, disadvantages and mutual suitability.	
Learning outcomes	 Is familiar with the duplication materials, insertion masses, metals and their alloys and their handling principles. Knows the concept of electrolytes and acids. Acquires knowledge of strength of materials. 	
Code	Subject title	Volume
2MVA17/MVÕ	Material and Colour Studies	2 ECTS
Aim	To acquire knowledge on the materials used for producing dentures, their physical and mechanical features; their consistence, structure, advantages, classification, disadvantages and mutual suitability, to develop the skills of	

	colour perception.
Learning	Knows and recognizes different light-curing composites.
outcomes	2. Knows and recognizes the consistence and physical properties of ceramic
	masses. 3. Knows and recognizes the colour of light and object as well as colour physiology and is able to connect it to tooth shade.

Module title:		Volume: 16 ECTS
Professional Devel	lopment	voidine. 10 EC 15
Aim	To create prerequisites for professional self-development and entrepreneurship by implementing basic knowledge in psychology, ethics, client service, and management.	
	 Is familiar with the content of the curriculum of dental technician, with the organization of studies and practical training as well as learning and counselling system. Is capable of planning and directing independent work and career as well as develop one's learning skills. Knows how to systemize and generalize what has been learnt during the curriculum subjects, apply theoretical knowledge into practice. Knows how to critically analyse, discuss and defend one's viewpoints. Knows, implements and develops different communication techniques. Values and uses the principles of teamwork. 	
Subjects Code	Subject title	Volume
Coue	Subject title	v olume
SO17	Introduction to Learning	2 ECTS
Aim	To create possibilities for managing successfully in study process in Tallinn Health Care College.	
Learning outcomes	 Has an overview of Estonian higher education system and possibilities for international cooperation. Knows organization of studies and practical training, and study counselling system in Tallinn Health Care College. Is able to compose and execute letters and study documents. Knows foundations of studies, teamwork, stress and time management, 	
Code	and career planning. Subject title	Volume
JuEt17	Management and Entrepreneurship	4 ECTS
Aim	To create possibilities for developing basic skills related to organization management and starting enterprise.	
Learning outcomes	 Can describe an organization and its management process, including personnel management, and associate them with his/her specialty. Knows different forms of enterprise and principles for choosing them. Chooses and analyses a business idea, can develop a business plan, and plan and carry out projects. Has elementary knowledge about foundations of tax system and accountancy, and can apply to financial institutions or funds for getting financing. Knows principles of product and service development, and marketing. 	
Code	Subject title	Volume

KL17	Client Service	3 ECTS	
Aim	To acquire knowledge about client service foundations and provide readiness for understanding and fulfilling clients` needs in service process.		
Learning outcomes	 Knows foundations and ethical aspects of client service. Knows the nature of service process and can participate properly in this. Knows types of products/service and is able to plan and carry out (sales) conversation. Uses appropriate communication techniques in client service. 		
Code	Subject title	Volume	
PSU17	Psychology	3 ECTS	
Aim	To acquire knowledge of psychology and prothe needs of a patient/client.	rovide readiness for understanding	
Learning outcomes	personality and social psychology) and r2. Understands the nature and causes of social behaviour.	3. Is able to apply different communication techniques and knows teamwork	
Code	Subject title	Volume	
2PA17/EA	Specialty Development	2 ECTS	
Aim	To provide knowledge on the importance of personal professional development and knowledge on how to develop his/her profession in terms of lifelong learning and purposeful planning of his/her career.		
Learning outcomes	 Can systematize and generalize what has been learnt and uses professional terminology, understands the importance of lifelong learning. Knows, recognizes and uses different learning styles and communication techniques. Acquires knowledge on leadership, supervision and teamwork. 		
Code	Subject title	Volume	
TTE20	Health Care Technology and e-Health	2 ECTS	
Aim	To develop knowledge about electronic health information systems and the principles of technologies used in healthcare.		
Learning outcomes	 Knows and uses health care technology terminology and the developed esolutions, understands the importance of data transfer. Has an overview of health telematics implication possibilities. Understands data protection requirements and the importance of cyber security requirements. 		

Module title:		Volume: 20 ECTS	
Research Metho	ndology	volume: 20 EC18	
Aim	To create possibilities and support for con-	l nducting research and developing	
		academic writing skills.	
Learning	1. Can find and use reliable evidence-based scientific sources for the		
outcomes	professional research.	professional research.	
	2. Can analyse and report information four		
	3. Knows foundations of statistics, can me	thodically collect data and analyse	
	them properly.		
	4. Knows ethics in research and can follow		
	5. Can set professional problems, and	based on the research, give	
Evaluation of r	recommendations for solving them. nodule: subject-based method		
Evaluation of I	nodule. Subject-based method		
Subjects			
Code	Subject title	Volume	
1 ITT) 11 15		# Forms	
UTM1-17	Foundations of Research I	5 ECTS	
Aim	To create readiness for collecting and analy	sing avidance based information	
Aiii	To create readiless for confecting and analy	sing evidence-based information.	
Learning	1. Can apply principles of systematic lit	erature search and record search	
outcomes	results.		
	2. Can independently use scientific data bases and analyse relevan		
	evidence-based materials.		
	<u> </u>	3. Can report professional scientific literature in English and Estonian.	
	4. Knows foundations of statistics and is a	•	
Code	5. Can compose and form independent wo Subject title	Volume	
Code	Subject title	Volume	
UTM2-17	Foundations of Research II	5 ECTS	
011112 17		2 2012	
Aim	To create skills for conducting research.		
Learning	1. Understands concepts and principles of scientific research and differences		
outcomes	between types of research.		
		2. Knows different research methods, and planning the research, can choose	
	the most suitable method for collecting and analysing data.		
	3. Can collect or find statistical data and relevant evidence-based sources,		
	analyse, report and refer properly them in his/her paper.4. Understands principles of ethics in science and medicine, is able to pay		
	attention to ethical aspects, when composing his/her research.		
Code	Subject title Volume		
LP1-17	Graduation Thesis I	5 ECTS	
Aim	To acquire skills for using his/her professional knowledge to search		
	independently and analyse critically a particular problem or situation in		

	practice.	
Learning outcomes	 Is able to independently plan and carry out a research, and present properly its results. Can pay attention to professional problems and research focuses. Is able to give research-based recommendations for solving professional problems. 	
Code	Subject title Volume	
LP2-17	Graduation Thesis II	5 ECTS
Aim	To show a student's ability to apply his/her knowledge and practical skills developed across the curriculum, to carry out a research using different research methods.	
Learning outcomes	 Understands research ethics and principles of reliability, and considers them when carrying out the research. Is able to go through and analyse scientific literature associated with a research problem. Knows the way of data collection and method of analysis used in the research. Can explain research results and importance of them in specialty. Is able to analyse critically and defend his/her viewpoints presented in the research, and discuss the searched topic. 	

Module title:		Volume: 5 ECTS	
Elective Subjects	S		
Evaluation of m	odule: subject-based method		
Subjects			
Code	Subject title	Volume	
VA17/ÜHM	Overview of the Morphology of Teeth	5 ECTS	
VA20/SPH	Oral hygiene and Dentures care	5 ECTS	