

TALLINNA TERVISHOIU KÕRGKOO



CURRICULUM OF DENTAL TECHNICIAN

80166

Tallinn 2014

Educational institution	TALLINN HEALTH CARE COLLEGE
Code of educational institution	70003980
Curriculum title	HAMBATEHNIK
Curriculum title in English	<i>DENTAL TECHNICIAN</i>
Curriculum level	Professional higher education
Curriculum Code in EHIS	8 0 1 6 6
Accreditation data	Curriculum belongs to the curriculum category of “medicine” in which the right to conduct studies has been given by the Government of Estonia in 18.12.2008 by the regulation no 178.
Initial registration of the curriculum	23.05.2005 by regulation no 433.
The date of approval of the version of the curriculum in the educational institution	The curriculum has been approved by the council of dental technician curriculum dated 10.04.2013 and 14.05.2014 by the Tallinn Health Care Council 20.05.2014 by the decision no 3.1.

Academic field	Health and wellbeing
Orientation of study	Health
Curriculum group	Medicine
The major speciality (or specialities) of the curriculum and the volume thereof (ECTS)	-
Minor speciality(s), other possible specializations in the curriculum and their volume (ECTS)	The curriculum has no minor specialities nor specialization
Types of study	Day time study
The nominal period of study	3,5 years
The volume of the curriculum in the credit points of European Credit Transfer and Accumulation System (ECTS):	210
The volume of required subjects (ECTS)	205
The volume of elective and optional subjects (ECTS)	5
Language of instruction	Estonian
Other languages needed to achieve learning outcomes	English
Conditions for the commencement of learning	Certificate of secondary school education, vocational secondary education or an equivalent qualification.
The objective of the curriculum	
To provide internationally recognized dental technicians with applied higher education who possess knowledge and skills to prepare dental prostheses and orthodontic appliances as well as compiling applied research and with readiness to develop the field of speciality and life-long learning.	

Learning outcomes of the curriculum

Upon completion of the curriculum of dental technician the student:

1. has a systematic overview of main theoretical concepts of dental technology, material qualities and technologies used in making dental prostheses;
2. knows the dental speciality application possibilities and current issues, is able to formulate, analyze, and relate them to other specialities and offer different solutions;
3. orientates in evidence-based professional information, is able to independently collect, critically analyze, and use the information;
4. is able to prepare dentures and orthodontic treatment appliances using appropriate methods and technologies, uses foresight and is able to critically assess potential consequences;
5. possesses necessary skills in management, entrepreneurship and teamwork needed to work as dental technician;
6. is able, in Estonian and in English, to explain dental equipment problems orally and in writing, using modern tools of information technology and communication technology;
7. is able to apply acquired knowledge and skills into work, dental technicians are ready to act, guided by their professional ethics;
8. understands the principles of lifelong learning and professional development opportunities and possibilities, keeps abreast of the latest achievements in dental technology.

Conditions for completion of the curriculum

The curriculum contains 11 modules (210 ECTS)

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| 1. Dental Restorations 1 | 21 ECTS; |
| 2. Dental Restorations 2 | 42 ECTS; |
| 3. Dental Restorations 3 | 36 ECTS; |
| 4. Functional Studies | 13 ECTS; |
| 5. Anatomy and First Aid | 12 ECTS; |
| 6. Basics of Material and Colour Studies | 8 ECTS; |
| 7. Health and Sickness | 20 ECTS; |
| 8. Professional Development | 7 ECTS; |
| 9. Research and Development Methodology | 16 ECTS; |
| 10. Pre-Diploma Practice | 23 ECTS; |
| 11. Diploma Paper | 7 ECTS. |

Volume of Internship 57 EAP in practice bases

Volume of Graduation Thesis 7 EAP

Optional Subjects 5 EAP.

Options to complete the curriculum Description of elective and optional subjects	In addition to obligatory subjects in the curriculum it is required to pass 5 ECTS of optional subjects in order to create possibilities to realize students' individual needs and intellectual interests.
Conditions for completion of the curriculum	Completion of the curriculum in full, graduation theses defended to a positive grade.
Name of the diploma granted upon graduation	<i>Diploma of professional higher education</i>
Documents issued at graduation	Diploma of professional higher education, the accompanying academic transcript and the <i>Diploma Supplement</i> in English.
Further education opportunities	Master's Studies
Access to labour market	Having completed the curriculum, learning outcomes have been achieved in order to work as a dental technician.
Additional information	Additional information in study information system and homepage (www.ttk.ee).

EXPLANATORY LETTER OF THE CURRICULUM OF A DENTAL TECHNICIAN

Since 2013/2014 the changes in the names of modules, evaluation and volumes are as follows:

1. Module Basics of Function Studies has been changed into Function Studies.
2. Separate module Orthodontics has been left out and the content has been added to the module Dental Restorations 2.
3. Module Final Practice has been renamed into Pre-diploma Practice and the volume has been decreased to 23 ECTS. Final Thesis has been renamed into Diploma Paper and the volume has been raised to 7 ECTS.
4. In order to motivate students into completing the curriculum the amount the differentiated grading has been increased.
5. Since 2014/2015 subjects Philosophy and Sociology (3 ECTS) and Psychology (2 ECTS) were formed into Basics of Public Health, Sociology and Philosophy (5 ECTS) and added to the module Health and Sickness.

Some names of certain subjects have been specified (e.g. Basics of Information Search 1,2; Introduction to Learning, Public Health and Basics of Pathology, Material and Colour Studies)

In changing the curriculum, students' as well as practice base supervisors'/employers' feedback is taken into account. Expert evaluation and recommendations from Tartu University are also considered in implementing changes.

The name of the curriculum, conditions for commencement of the studies, nominal length and volume of studies, possibilities of specialization, language of instruction and classification of the content of the curriculum was not changed.

THE EXPECTED AREA OF ACTIVITY OF GRADUATES

The main field of activity is the profession of dental technology, particularly the work of a dental technician in the dental technological laboratory. The curriculum also allows graduates to be a manager in an establishment manufacturing dentures, in a company mediating dental technical products in Estonia as well as abroad and as a dental technology teacher after 3 years of experience as a dental technician and completion of continuing education. Dental technicians are able to continue their studies at the Master's level.

BASICS OF THE CURRICULUM AND PRACTICE ORGANIZATION

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 or her health and the surrounding environment.

In all speciality 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 one's stages of work and analyze 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 practice bases in addition to practical training at college.

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

1. Republic of Estonia Education Act <https://www.riigiteataja.ee/akt/102072012010>
2. Universities Act, <https://www.riigiteataja.ee/akt/130052012011>
3. Professional Higher Education Institutions Act
<https://www.riigiteataja.ee/akt/130052012006>
4. Standard of Higher Education <https://www.riigiteataja.ee/akt/107082012005>
5. Statutes of the Tallinn Health Care College <https://www.riigiteataja.ee/akt/108012013004>
6. The Statute of the Curriculum of Tallinn Health Care College
<http://www.ttk.ee/oppimine/oppekorraldus/171219/>
7. The professional standard. Master dental technician, level 6. (2013).

REQUIREMENTS SET FOR THE CURRICULUM AND TO THE QUALITY OF STUDIES

The dental technician curriculum 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.

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 Technician, students, alumni, employers, and an external expert. Curriculum Council analyzes 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.

100 % of the lecturers in the Chair of Dental Technology have at least Master's degree or an equivalent professional qualification.

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

1. The compliance of the curriculum with the requirements of the Standard of Higher Education;
2. The compliance of the curriculum with the requirements of the Professional Standard;
3. Modernization of the curriculum by teaching new technologies;
4. Development of the professional and pedagogical competences of lecturers;
5. Ensuring internationalization of the curriculum via academic and student mobility and university cooperation; intensive cooperation with other countries via LLP/Erasmus intensive programmes;
6. The knowledge and skills of the graduate can be evaluated on the basis of achievement of the goals and learning outcomes of the curriculum;
7. 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 practice base 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 practice bases in order to acquire skills needed to use various technological possibilities and get experience and recommendations from different supervisors.

The curriculum has been approved by the Council of Dental Technician Curriculum on 10.04.2013 and 14.05.2014.

The curriculum has been approved by the Tallinn Health Care College Council Decision No 3.2. on 18.05.2010 and changed with the Decision No 3.1. on 20.05.2014.

CURRICULUM MODULES AND SUBJECTS; GOALS AND LEARNING OUTCOMES

Module title: DENTAL RESTAURATIONS 1		Volume: 21 ECTS Code: 2DR113
Goal	Student knows, recognizes and is able to produce acrylic partial and total dentures, knows the esthetic principles of dentures.	
Learning outcomes	<p>Having passed the module, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and applies speciality terminology, knows the main stages of the history of prosthetic dentistry; 2. 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; 3. considers the principles of function and occlusion in producing a denture; 4. knows how to select and use materials, apparatus and work instruments according to the work's nature by following instructions, requirements of safety measures and environment saving; 5. is able to produce removable acrylic partial and complete dentures; 6. has an overview of inserting acrylic prostheses into oral cavity, about its adaption and maintenance; 7. can describe and evaluate work process and the prepared work, analyze the technological sides of successful and faulty work and possible reasons of it due to instructions received or organizational causes; 8. can compare and document dental restorations prepared during the practical training, describe the technologies, resources used as well as the teamwork experienced. 	
Evaluation of the Module: Module is evaluated within each subject.		
Subjects: Acrylic prostheses I, Acrylic prostheses II. Practice Acrylic Prostheses		

Code: 2DR113AP-1	Subject title Acrylic prostheses I	Volume: 6 ECTS
Goal	Student knows, recognizes and is able to produce esthetic and functional acrylic partial and complete prostheses and knows the clinical and laboratory stages of producing prostheses.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. learns to use speciality terminology, knows the main stages of prosthetic history; 2. learns about the arch defects and classifications of acrylic prostheses, indications and contraindications of prosthetic treatment, the stages of preparing a prostheses; 3. learns to consider the principles of function, occlusion and esthetics when preparing a prostheses; 4. learns to choose and use materials, apparatus and equipment according to the type of work and following instructions, requirements for safety measures and environment saving; 	

	<p>5. learns to produce acrylic removable partial and complete prostheses;</p> <p>6. has an overview about inserting acrylic dentures into oral cavity, about adaptation and maintenance;</p> <p>7. learns to describe and evaluate the work process and the work that has been done, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works;</p>
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Code: 2DR113AP-2	Subject title Acrylic prostheses II	Volume: 8 ECTS
Goal	Student can produce acrylic esthetic and functional partial and complete prostheses and knows the clinical and laboratory stages of producing a prostheses.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. understands and uses speciality terminology; 2. knows and recognizes classifications of arch defects and classifications of acrylic prostheses, indications and contraindications of prosthetic treatment, stages of producing a prostheses; 3. considers the principles of function, occlusion and esthetics in preparing acrylic prostheses; 4. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving; 5. can produce acrylic removable partial and complete prostheses; 6. can describe and evaluate the work process and the prepared work, to analyze the technological causes of successful and unsuccessful works; 	

Code: 2DR113PAP	Subject title Practice Acrylic Prostheses	Volume: 7 ECTS
Goal	Student can produce esthetic and functional acrylic partial and complete dentures fo clinical cases and knows the clinical and laboratory stages of producing dentures. Student learns to compile, format and present practical training documentation.	
Learning outcomes	<p>Having passed the practice, the student:</p> <ol style="list-style-type: none"> 1. understands and uses speciality terminology in practice report and in presenting the practice documentation; 2. considers the principles of function, occlusion and esthetics in producing a prostheses; 3. can choose and use materials, apparatus and equipment according to the type of work by observing instructions, requirements for safety measures and environment saving; 3. has an overview of inserting acrylic prostheses into oral cavity, about its adaption and maintenance; 4. can produce alveolar ridges and individual trays for partial and complete dentures; 5. knows the construction of articulator and its management principles, can mount a model on the articulator; 6. can determine the tooth equator with a parallelometer as well as the 	

	<p>location of the clamp and bend the clamp according to the regulations;</p> <p>7. can model wax basis considering the requirements of function, esthetics and hygiene and the anatomical construction of the mouth;</p> <p>8. can align acrylic teeth on a basis according to morphological features and tooth alignment rules, can amend the prostheses and rebase the prostheses;</p> <p>9. knows different methods of cuvetting and polymerization and can cuvet a dentate sample, choose suitable acrylic and insert to the cuvette;</p> <p>10. knows and recognizes different instruments of processing and finishing prostheses and can process acrylic plate prostheses after polymerization;</p> <p>11. can describe and evaluate the work process and the prepared work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works.</p> <p>11. can document and describe practical training environment, instruction, work organization, technologies, dental restorations prepared, solving the problems, etc.</p>
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Module title: DENTAL RESTAURATIONS 2		Volume: 42 ECTS Code: 2DR213
Goal	Student acquires technological skills of preparing partial and combined prostheses and orthodontic appliances in practical rehearsal.	
Learning outcomes	<p>Having passed the module, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses speciality terminology; 2. knows and recognizes the classifications of dental arch defects and casted framings of partial dentures as well as orthodontic appliances, the indications and contraindications of prosthetic dentistry, the completing stages of denture; 3. knows and recognizes the basics of constructing orthodontic appliances; 4. has an overview of partial and combined prostheses and orthodontic appliances insertion into the oral cavity, about its adaptation and maintenance; 5. knows how to construct casted framework partial prostheses, basic combined prostheses and orthodontic appliances; 6. considers the principles of function and occlusion in preparing partial and combined prostheses and orthodontic appliances; 7. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving; 8. can describe and evaluate the work process and the done work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works, is good at teamwork; 9. can interpret the treatment plan provided by the doctor; 10. can compare in practical training report the justifications for selecting the dental restorations, technologies, work organization, resources, etc. in different practical training locations and demonstrates one's ability of comparison in practical training reports; 	
Module evaluation: Module is evaluated within subjects.		
Subjects: Partial prostheses I, Practice Partial prostheses and Orthodontics I, Practice Partial Prostheses and Orthodontics II and combined prostheses, partial prostheses II		

Code: 2DR213PBP-1	Subject title Partial Prosthesis I	Volume: 6 ECTS
Goal	The student gets to know and to use the elements of partial dentures, can according to the analysis construct and model partial dentures. Student acquires technological methods for producing partial dentures during practical rehearsal works.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. learns to use speciality terminology; 2. learns to recognize the classifications of dental arch defects and casted framings of partial dentures, the indications and contraindications of prosthetic dentistry, the completing stages of a denture; 3. considers the principles of esthetics, function, and occlusion in producing a partial denture; 4. can select and use materials, apparatuses and work instruments accordingly with work nature by observing instructions, the requirements for safety measures and environment saving; 5. has an overview of inserting partial prostheses into the oral cavity, about the adaption and maintenance; 6. learns how to use a parallelometer and perform prominence analysis in constructing partial denture; 7. learns about the requirements set for a framework of partial denture: location, esthetics, functionality, etc. 8. learns to use the elements of partial prostheses and model and produce casted framework partial prostheses; 9. learns to set up a metal casting apparatus to pour partial prostheses, learns to pour metal alloys into the cylinder and to open the metal casting cylinder; 10. learns about non-precious metal alloys and the requirements for handling; 11. learns to add final finish to the partial denture; 12. can describe and evaluate the work process and the done work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works. 	

Code: 2DR213PBP-2	Subject title Partial Prosthesis II	Volume: 5 ECTS
Goal	The student gets to know and to apply the elements of partial dentures, can construct and model partial dentures. Student acquires the technological methods for producing partial dentures during practical rehearsal works.	
Learning outcome	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses speciality terminology; 2. knows and recognizes the classifications of dental arch defects and casted framings of partial dentures, the indications and contraindications of prosthetic dentistry, the completing stages of denture; 3. considers the principles of esthetics, function, and occlusion in producing a partial denture; 4. knows how to use a parallelometer and perform prominence analysis in constructing partial denture; 5. knows the requirements set for a framework of partial denture: location, 	

	<p>esthetics, functionality, etc.</p> <p>6. knows the laboratory stages of preparing partial dentures; knows the elements and can construct a casted framework partial denture;</p> <p>7. can process a non-precious metal framework to the partial using suitable materials and equipment;</p> <p>8. can prepare wax and coldpolymerizing acrylic bases, can align artificial teeth to a partial;</p> <p>9. can add final finish to a partial denture.</p>
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Code: 2DR213OD	Subject title: Orthodontics	Volume: 9 ECTS
Goal	Student gets an overview of the development stages of face, scull and morphological-functional description of occlusion, occlusion anomalies, the classification of orthodontic appliances and the principles of orthodontic treatment. Student knows the principles of constructing orthodontic appliances and the requirements for the appliances.	
Learning outcome	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows the principles of constructing orthodontic appliances, can use speciality terminology; 2. knows and recognises the classifications of occlusion and orthodontic appliances, the indications and contraindications of orthodontic treatment, the completing stages of orthodontic appliances; 2. can produce different orthodontic appliances, knows their advantages and disadvantages, is aware of differences in orthodontic treatment in children and adults, can interpret doctor's treatment plan; 3. can select and use materials, apparatuses and work instruments accordingly with work nature by observing instructions, the requirements for safety measures and environment saving; 4. can solder different wire details; 5. has an overview of inserting orthodontic appliances into the oral cavity, about the adaption and maintenance; 6. can describe and evaluate the construction process and the finished appliance. 	

Code: 2DR213PPO-1	Subject title Practice Partial Protheses and Orthodontics I	Volume: 6 ECTS
Goal	Student knows, recognizes and is able to construct esthetic and functional partial protheses and orthodontic appliances for clinical cases, knows the clinical and laboratory stages of constructing a denture. Student learns to compile, format and present practice documentation.	
Learning outcomes	<p>Having passed the practice, the student:</p> <ol style="list-style-type: none"> 1. learns to use speciality terminology in practical training report; 2. considers the principles of function, occlusion and esthetics in producing a partial denture and orthodontic appliance; 3. knows and recognizes the requirements set fot the framework of partial protheses; 4. learns the requirements set for orthodontic appliances; 	

	<p>5. can prepare diagnostic gypsum models;</p> <p>6. knows the elements of partial prostheses and can model and produce a casted framework partial prostheses;</p> <p>7. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving;</p> <p>8. can describe and evaluate the work process and the done work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works;</p> <p>9. knows and recognizes the clinical/laboratory stages of producing partial dentures and orthodontic appliances and can produce them in a laboratory;</p> <p>10. can compare in practical training report the justifications for selecting the dental restorations, technologies, work organization, resources, etc. in different practical training locations.</p>
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Code: 2DR213PPO-2	Subject title Practice Partial Prostheses and Orthodontics II	Volume: 8 ECTS
Goal	Student knows, recognizes and is able to construct esthetic and functional partial prostheses and orthodontic appliances for clinical cases, knows the clinical and laboratory stages of constructing a denture. Student compiles, formats and presents practice documentation.	
Learning outcome	<p>Having passed the practice, the student:</p> <ol style="list-style-type: none"> 1. understands and uses speciality terminology in practice report; 2. considers the principles of esthetics, function, and occlusion in producing a denture; 3. knows and recognizes the requirements set for the framework of partial prostheses; 4. knows the requirements set for orthodontic appliances; 5. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving; 6. continues to describe and evaluate the work process and the done work, and to analyze the technological, instructing related and organizational causes of successful and unsuccessful works; 7. can compare in practical training report the justifications for selecting the dental restorations, technologies, work organization, resources, etc. in different practical training locations. 	

Code: 2DR213KP	Subject title Combined Prostheses	Volume: 8 ECTS
Goal	Student gets an overview of combined prostheses and their possibilities of usage. Student will learn about different types of attachments and to produce basic combined prostheses.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses speciality terminology; 2. knows and recognizes the classification, indications and contraindication of using combined prostheses, knows the stages of production; 	

	<ol style="list-style-type: none"> 3. has an overview of inserting combined prostheses into the oral cavity, its adaption and maintenance; 4. considers the principles of function and occlusion in producing a denture; 5. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving; 6. can produce root attachments and attach an overdenture on it; 7. can produce crowns with attachments and attach a partial prostheses with a metal cast framework on it.
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Module title: DENTAL RESTAURATIONS 3		Volume: 36 ECTS Code: 2DR313
Goal	Student will be prepared to produce full casted, metal ceramic and metal-plastic crowns, and bridge-dentures, therewith acquiring theoretical knowledge and methods of practical work.	
Learning outcomes	<p>In passing the module, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses speciality terminology; 2. knows and recognizes the classifications of dental defects and fixed dentures, the indications and contraindications of prosthetic dentistry, the completing stages of denture; 3. considers the principles of function and occlusion in producing a denture; 4. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving; 5. is able to produce crowns, bridge-dentures, inlays and other fixed dentures; 6. has an overview of inserting dentures into oral cavity, about the adaptation and maintenance; 7. can describe and evaluate work process and the prepared work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works, is responsible in team work; 7. can compare in practical training report the justifications for selecting the dental restorations, technologies, resources, etc. in different practical training locations. 	
Module evaluation: Module is evaluated within each subject.		
Subjects: Fixed prostheses I, Fixed prostheses II, Practice Fixed Prostheses I, Practice Fixed Prostheses II		

Code: 2DR313FP-1	Subject title Fixed prostheses I	Volume: 13 ECTS
Goal	During the practical exercise works the student will be prepared to produce full casted, metal ceramic and metal-plastic crowns, and bridge-dentures, therewith acquiring theoretical knowledge and practical work methods.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses speciality terminology; 2. knows and recognizes the classifications of dental defects and fixed dentures, the indications and contraindications of prosthetic dentistry, 	

	<p>the completing stages of denture;</p> <p>3. has an overview about inserting dentures into oral cavity, about the adaptation and maintenance;</p> <p>4. considers the principles of esthetics, functioning and occlusion in producing a denture;</p> <p>5. learns to select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving;</p> <p>2. learns to prepare a combined model;</p> <p>3. learns to mount the combined gypsum models into articulator;</p> <p>4. learns to prepare abutments, full casted and metal ceramic crowns, bridges, laminates and inlays/onlays;</p> <p>5. learns to set sprues to wax models and insert wax model to be produced as metal cast;</p> <p>6. learns to set up a metal cast apparatus to pour fixed prostheses, pour metal alloys and open the metal cast cilinder;</p> <p>7. learns to process and finish fixed dental restaurations;</p> <p>8. can describe and evaluate work process and the prepared work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works;</p> <p>9. can compare the technological processes of different fixed prostheses.</p>
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Code: 2DR313FP-2	Subject title Fixed Prostheses II	Volume: 10 ECTS
Goal	During the practical exercise works the student will be prepared to produce full casted, metal ceramic and metal-plastic crowns, and bridges therewith acquiring theoretical knowledge and practical work methods.	
Learning outcomes	<p>Having passed the subject, the student:</p> <p>1. knows, recognizes and uses speciality terminology;</p> <p>2. knows and recognizes the classifications of dental defects and fixed dentures, the indications and contraindications of prosthetic dentistry, the completing stages of denture;</p> <p>3. considers the principles of esthetics, function and occlusion in producing a denture;</p> <p>4. can select and use materials, apparatuses and work instruments according to the work's nature by observing instructions, requirements for safety measures and environment saving;</p> <p>5. can prepare a combined model;</p> <p>6. can mount the combined gypsum models into articulator;</p> <p>7. can prepare abutments, full casted and metal ceramic crowns, bridges, laminates and inlays/onlays;</p> <p>7. learns to use CAD/CAM circonium restaurations, technologies of preparation and handling;</p> <p>8. can set sprues to wax models and insert wax model to be produced as metal cast;</p> <p>9. can set up a metal cast apparatus to pour fixed prostheses, pour metal alloys and open the metal ast cilinder;</p> <p>10. can process and finish fixed dental restaurations.</p>	

Code: 2DR313PFP-1	Subject title Practice Fixed Prosthesis I	Volume: 7 ECTS
Goal	Student knows, recognizes and can prepare esthetic, functional fixed prostheses for clinical cases, knows the clinical and laboratorial stages of producing prostheses.	
Learning outcomes	<p>In passing the practice, the student:</p> <ol style="list-style-type: none"> 1. learns to use the terminology of fixed prostheses in practice report and oral presentations; 2. considers the principles of esthetics, functioning and occlusion in producing a fixed denture; 3. is able to produce a combined model and can mount the combined model with opposing occlusion into different types of articulator; 4. can prepare abutments, full casted and metal ceramic crowns, bridges, laminates and inlays/onlays; 5. Is able to set sprues and insert fixed prostheses for metal casting, can perform casting; 6. learns the qualities of different metal alloys and the requirements of their handling; 7. can choose and use materials, apparatus and equipment according to the type of work, following the instructions, safety regulations and demands of environment safety; 8. can describe and evaluate work process and the done work, to analyze the technological, instructing related and organizational causes of successful and unsuccessful works; 9. can compare in practical training report the justifications for selecting the dental restorations, technologies, resources, etc. in different practical training locations. 	

Code: 2DR313PFP-2	Subject title Practice Fixed Prosthesis II	Volume: 6 ECTS
Goal	Student knows, recognizes and can prepare esthetic, functional fixed prostheses for clinical cases, knows the clinical and laboratorial stages of producing prostheses.	
Learning outcomes	<p>Having passed the practice, the student:</p> <ol style="list-style-type: none"> 1. understands and uses terminology of fixed prostheses in practice report and oral presentations; 2. can produce temporary-, metal plastic and metal ceramic and full ceramic crowns, bridge-dentures, laminates and inlays; 3. is able to make sprues and insert full-ceramic crowns for pressurization; 4. knows different materials needed to produce fixed prostheses and the requirements for handling; 5. knows the technologies of producing CAD/CAM zirconium restorations; 6. can describe and evaluate work process and the done work in practice report, is able to analyze the technological, instructing related and organizational causes of successful and unsuccessful works. 	

Module title: FUNCTIONAL STUDIES		Volume: 13 ECTS Code: 2FÖ13
Goal	Student can connect the principles of occlusion and articulation with producing of dental restorations, and understands the associations of morphology and occlusion.	
Learning outcomes	Having passed the module, the student: 1. uses the terminology of esthetics, occlusion and articulation; 2. knows and recognizes the most important factors influencing occlusion, the biomechanics of stomatognathic system, the criteria of optimal functional occlusion, the connections between lower and upper teeth in case of different occlusions; 3. recognizes the structure and functioning of temporomandibular joint, limited and functional motions of mandible, the connection between neuromuscular system and occlusion; 4. recognizes the functional disorders of mandible; 5. knows and recognizes the internal relation between occlusion and chewing, between speech and the outlook of face, the principles of occlusion therapy; 6. knows and recognizes different types of articulators, their structure and functioning mechanisms, and uses these on agreed level with face bow in practical work; 7. understands the general connections between morphology and occlusion, can differentiate the morphological structures on tooth surface and can name them; 8. can model teeth and perform wax-up's that correspond to the tooth's morphological features and harmonize with natural teeth, considering function, occlusion and esthetics.	
Module evaluation: Module is evaluated within each subject.		
Open: Esthetics, Function and Occlusion, Morphology of Teeth, Speciality Intense Studies.		

Code: 2FÖ13EFO	Subject title Esthetics, Function and Occlusion	Volume: 7 ECTS
Goal	The student can connect the principles of occlusion and articulation with the producing of dental restorations, and understands the associations of morphology and occlusion. Student can produce esthetic and functional dental prostheses.	
Learning outcomes	Having passed the subject, the student: 1. understands and uses the terminology of esthetics, occlusion and articulation; 2. knows and recognizes the most important factors influencing occlusion, the biomechanics of stomatognathic system, the criteria of optimal functional occlusion, the connections between lower and upper teeth in case of different occlusions; 3. recognizes the structure and functioning of temporomandibular joint, limited and functional motions of mandible, the connection between neuromuscular system and occlusion; 4. is able to consider the principles of function, occlusion and esthetics when producing dental prostheses; 5. is able to choose teeth according to the size, shape, colour and occlusion	

	<p>anomaly;</p> <p>6. knows and is able to shape esthetic gumline taking into account the anatomy and hygienic requirements of the mouth;</p> <p>7. knows and recognizes the possibilities of characterization of artificial teeth and acrylic baseplate;</p> <p>8. understands the connections between occlusion and mastication, speech and outer appearance of the face, principles of occlusion therapy;</p> <p>9. knows and recognizes different types of articulators, their function and mechanisms and uses articulators in practical work in case of agreed level or using a face bow;</p> <p>10. describes and evaluates the working process and to the prepared work, analyses the reasons for success and failure.</p>
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Code: 2FÖ13HM	Subject title Morphology of Teeth	Volume: 3 ECTS
Goal	Student understands the connections between teeth morphology and occlusion and is able to model and esthetic crown to the artificial tooth root according to the morphological characteristics of a tooth.	
Learning outcome	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses speciality terminology; 2. understands general connections between morphology and occlusion, can detect different morphological structures on the surface of the tooth and is able to name them; 3. 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: 2FÖ13ESO	Subject title Speciality Intense Studies	Volume: 3 ECTS
Goal	The student can connect the principles of occlusion and articulation with producing dental restorations, and understands the connection between morphology and occlusion.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. uses the terminology of occlusion and articulation; knows and recognizes the most important factors influencing occlusion, the biomechanics of stomatognathic system, the criteria of optimal functional occlusion, the connections between lower and upper teeth in case of different occlusions; 2. recognizes the structure and function of temporomandibular joint, limited and functional motions of mandible the connection between neuromuscular system and occlusion; 3. knows the functional disorders of mandible; 4. knows and recognizes the internal relation between occlusion and mastication, between speech and the face, the principles of occlusion therapy; 4. uses occlusion compass in modelling dental crowns; 5. is able to consider function, occlusion and esthetics in preparing dental prostheses. 	

Module title: ANATOMY AND FIRST AID		Volume: 12 ECTS Code: 2AE13
Goal	<p>Student understands the mechanisms regulating human organism development, structure, functioning and organ systems' activities, relying on physical processes happening inside it.</p> <p>Student understands the anatomy and physiology of skull and teeth.</p> <p>Student knows the basics of Latin terminology and knows how to apply it.</p> <p>Student has general knowledge and skills of first aid.</p>	
Learning outcomes	<p>Having passed the module, the student:</p> <ol style="list-style-type: none"> 1. knows the development, structure and functioning of human organism and the mechanisms regulating them, can explain the biological, physical and chemical processes taking place in organism; 2. knows the anatomy and physiology of skull, oral cavity and teeth; 3. knows and recognizes main pathological processes; 4. knows and recognizes the basics of masticatory system and can classify teeth according to the anatomical shape and structure; 5. knows the basics of Latin terminology and uses speciality terminology, knows how to compose necessary expressions and can forward them correctly, values correct speciality language and it's adequate use; 6. knows and recognises the possibilities of pre-medical help, and is able to use the instruments and methods of first aid. 	
Module evaluation: Module is evaluated within the subject.		
Subjects: Anatomy and Physiology I, Anatomy and Physiology II, Latin, First Aid.		

Code: 2AE13AF-1	Subject title Anatomy and Physiology I	Volume: 6 ECTS
Goal	<p>Student understands the mechanisms regulating human organism development, structure, functioning and organ systems' activities, relying on physical processes happening inside it.</p> <p>Student understands the anatomy and physiology of skull and teeth.</p>	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. Uses correct terminology of the field of anatomy and physiology; 2. knows the development, structure, functioning and regulating mechanisms of human organism; 3. knows the structure and functioning of motion apparatus of human organism; 4. knows the structure and function of blood and lymphatic circulation, respiratory, digestive and secretion systems based on physical and biochemical processes; 5. knows the structure and function of glandular system, nervous system and sensory system based on physical and biochemical processes; 6. knows how to explain processes taking place in the organism, based on the physical processes; 7. is able to connect acquired knowledge with other subjects. 	

Code: 2AE13AF-2	Subject title Anatomy and Physiology II	Volume: 3 ECTS
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Goal	Student understands the anatomy and physiology of the skull and teeth. Student is able to determine teeth according to characteristic features.
Learning outcomes	Having passed the subject, the student: 1. knows the anatomy and physiology of the skull; 2. knows the structures of the oral cavity (mucous membrane, salivary glands, etc.) and their importance in preparing dental prosthesis; 3. knows and recognizes the structure of a tooth and is able to identify teeth according to their characteristic features; 4. knows the anatomical shape and structure of teeth; 5. knows how to differentiate between basic morphological structure on the surface of a tooth and can name them; 6. Is able to recognize the differences between deciduous and permanent teeth.

Code: 2AE13LK	Subject title Latin	Volume: 1 ECTS
Goal	To achieve the understanding of terminology needed for dental technician.	
Learning outcome	Having passed the subject, the student: 1. is able to correctly use speciality terminology; 2. knows how to form necessary expressions and to correctly use them; 3. values precise speciality language and its correct usage.	

Code: 2AE13EA	Subject title First Aid	Volume: 2 ECTS
Goal	Forming readiness to give pre-medical aid.	
Learning outcomes	Having passed the subject, the student: 1. knows how to perform cardiopulmonary resuscitation for different health groups (infant, child, adult); 2. knows how to use the principles of first aid in case of different injuries and emergency situations; 3. knows how to correctly instruct other people giving first aid; 4. knows requirements of transportation in case of different injuries and emergency conditions.	

MODULE TITLE: BASICS OF MATERIAL AND COLOUR STUDIES		Volume: 8 ECTS Code: 2MVA13
Goals	Student is familiarized with the basics of the history of materials used in dental technology. Student learns about the materials used to produce dental prostheses, their physical and mechanical properties. Student develops the skills of colour perception.	
Learning outcomes	Having passed the module, the student: 1. knows, recognizes and uses speciality terminology; 2. knows and recognizes the history of the materials used to produce dental prostheses, methods or producing, physical and chemical properties; 3. knows and recognizes the mutual suitability of the materials used, their	

	<p>classifications and is able to analyse the possible mistakes upon usage;</p> <p>4. knows and recognizes different types of gypsum and its classification, the composition and types of waxes, impression -, abrasive-, isolating-, duplicating-, and fire resistant materials; metals and their alloys, ceramic materials, polymers and is familiar with their handling;</p> <p>5. knows and recognizes desinfectants and their effect on different materials used in dental technology;</p> <p>6. knows and recognizes the essence of electrolysis, principles of soldering and welding;</p> <p>7. knows and recognizes the colours of light and object, wavelengths of specter colours, and can connect it with tooth shade guides and with natural tooth colours;</p> <p>8. knows and recognizes the colours used in manufacturing prostheses and is familiar with the factors affecting choosing the colour.</p>
Module evaluation: Module is evaluated within the subjects.	
Subjects: Material Studies I and II and Material and Colour Studies.	

COde: 2MVA13MO-1	Subject title Material Studies I	Volume: 3 ECTS
Goal	Students are introduced with the historical development of materials used in dental technology. Student gets to know 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	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. uses correct terminology of the field; 2. knows the history of the materials used in dental technology, their physical and mechanical properties and methods of determination; 3. knows different types of gypsum (natural, synthetic) and is familiar with the classes of gypsum; 4. differentiates between different types of acrylics, is familiar with the chemical processes involved when handling acrylics and technical requirements; 5. knows and recognizes the composition and types of wax, impression materials, abrasive materials, polishing materials and isolating agents; 6. is familiar with the effect of disinfection agents on different dental technology materials. 	

Code: 2MVA13MO-2	Subject title Material Studies II	Volume: 3 ECTS
Goal	Student gets to know the technologies in preparing the materials to produce dental prostheses, their consistence, structure, advantages, disadvantages and mutual suitability.	

Learning outcomes	Having passed the subject, the student: <ol style="list-style-type: none"> 1. uses correct speciality terminology of the field; 2. is familiar with the duplication materials, insertion masses, metals and their alloys and their handling principles; 3. knows the essence or elctrolysis and what are acids; 4. acquires knowledge of strength of materials; 5. knows the principles of pouring and processing different metallic alloys and can analyse different casting flaws; 6. is familiar with the principles of soldering.
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Code: 2MVA13MVO	Subject title Material and Colour Studies	Volume: 2 ECTS
Goal	The student gets to know the history and basic principles of dental technical materials. The student learns the materials used for producing dentures, their physical and mechanical features. Student develops the skills of colour perception.	
Learning outcomes	Having passed the subject, the student: <ol style="list-style-type: none"> 1. knows and recognizes different light-curing composites; 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 shades; 4. is able to determine the tooth shade using the shade cards; 5. knows the essence of light reflection. 	

Module title: HEALTH AND SICKNESS		Volume: 20 ECTS Code: 2TH13
Goal	The student knows and recognizes risk factors, possesses knowledge about microbiology, a- and antiseptics, genetics, immunology, teeth and oral cavity hygiene and diseases. Student knows and recognizes the legislature regulating the areas of health and social care, the theoretical principles of population health and health promotion.	
Learning outcomes	Having passed the module, the student: <ol style="list-style-type: none"> 1. knows, recognises and uses speciality terminology; 2. knows and can define the risk factors of working environment, knows the principles of risk analyses and necessary precaution measures, knows how to use them; 3. acquires safe working methods, can safely use work instruments, apparatuses and materials; 4. has knowledge about micro-biology, the diseases caused by micro-organisms and the spreading of it; 5. has knowledge on requirements for hygiene and infection control in dental care establishments and dental technology laboratories; 6. has an overview about the micro-flora in human oral cavity, tooth pulp and teeth; 7. has an overview of skeletal disorders of face and mandibular/maxilla and their appearance; 	

	<p>8. has knowledge about the basics of immunology, infection, a- and antiseptics;</p> <p>9. knows and recognizes the basic principles of health care and social policy, knows the most important legal acts regulating social protection and health care, can analyze the functioning of health care and social protection system;</p> <p>10. knows and recognizes the theoretical principles of preventing diseases/injuries, of public health and health promotion; the principles of epidemiology, basics of philosophy and sociology;</p> <p>11. knows and recognizes the physical, mental and social risk factors of health;</p> <p>12. knows and recognizes the organization and possibilities of health promotion in Estonian health policy.</p>
Module evaluation: module is evaluated within each subject.	
Subjects: Microbiology an a-and aseptics, Genetics, Oral Hygiene and Pathology, Work Health Care, Basics of Public health, sociology and philosophy, Public Health and Basics of Pathology.	

Code: 2TH13MAA	Subject title Microbiology, a – and antiseptics	Volume: 2 ECTS
Goal	<p>Student gets an overview of general terminology of microbiology and a – and antiseptics.</p> <p>Student is familiar with most common pathogenic microorganisms and has an overview of most used methods and means of disinfection and sterilization.</p>	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. possesses knowledge on general microbiology, classification or microorganisms, their function, morphology and requirements for growth; 2. has an overview of human microflora (especially oral cavity, gums and teeth); 3. possesses knowledge on the basics of immunology; 4. knows the terms of infection and basics of epidemiology; 5. knows the principles of a – and antiseptics and ways of implementing them; 6. knows the most important methods of disinfection and sterilization; 7. knows general properties of the most common microorganisms; pathogenicity and diseases caused, prevalence and resistance to the environment; 8. is able to use relevant bibliographic catalogues, handbooks and other sources. 	

Code: 2TH13GE	Subject title Genetics	Volume: 2 ECTS
Goal	<p>Student knows the basics of medical genetics and understands the mechanisms and signs of genetic diseases.</p>	
Learning outcome	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows the basics of medical genetics; 2. knows the terminology of genetics; 	

	<p>3. knows the molecular basics of human heredity and methods of investigation of human genome;</p> <p>4. knows the main genetic disorders and their signs and symptoms.</p>
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Code: 2TH13SHH	Subject title Oral hygiene and pathology	Volume: 3 ECTS
Goal	Student acquires knowledge on postprosthetic hygiene and diseases of teeth and oral cavity; about damage caused by prostheses and radiographic changes.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows, recognizes and uses professional terminology; 2. possesses knowledge on diseases of oral cavity caused by microorganisms; 3. has an overview of the microflora of oral cavity, gums and teeth; 4. knows the main principles of hygiene concerning oral cavity and postprosthetic situation; 5. has knowledge of radiographic changes; 6. knows the damage caused by prosthesis; 7. has an overview on injuries of facial bones as well as of maxilla and mandibula. 	

Code: 2TH13TT	Subject title Work health care	Volume: 4 EAP
Goal	<p>To form understanding of the main principles of workplace health care in terms of work safety, of its organization in Estonia. Also, of risk factors deriving from work environment and work type, assessing health risks and its prevention, ensuring the ability to work for workers.</p> <p>Student acquires safe manners of working in a dental technology laboratory, knows how to use working equipment, apparatus and materials safely for oneself, fellow students and environment.</p>	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows how to find legislative acts regulating work health; 2. knows how to use the information acquired to map the risk factors of a working environment; 3. is capable of participating in risk evaluation work (teamwork); 4. chooses suitable methods to prevent harmful effects of workplace riskfactors; 5. is able to explain the harmful effect of workplace riskfactors within the limits of one's profession; 6. is aware of fire – and electricity safety regulations; 7. knows how to use safely the equipment in dental technology laboratories, systems (ventilation, etc.), apparatus and materials following the manufacturer's instructions; 8. is aware of the possible riskfactors in dental technology laboratory and knows how to prevent them; 	

	9. is able to choose and maintain for one's personal safety equipment and compile instructions for apparatus and materials.
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Code: 2TH13RTHO	Subject title Public Health and Basics of Pathology	Volume: 2 ECTS
Goal	Student has an overview of the basics of pathology, public health, health promotion and epidemiology, and preventing diseases and injuries.	
Learning outcomes	Having passed the subject, the student: <ol style="list-style-type: none"> 1. possesses knowledge about theoretical aspects of health and health promotion as well as basics of pathology; 2. possesses knowledge about main pathological processes and onset of diseases; 3. possesses knowledge on physical, psychological and social risk factors of health; 4. possesses knowledge on mutual connection between a person and environment according to health; 5. possesses knowledge on principles of health politics, organization of health promotion and its possibilities in Estonia. 	

Code: 2TH13SA	Subject title Legislation	Volume: 2 ECTS
Goal	To introduce general knowledge and skills of Estonian social and health care system needed for speciality-concerned professional activities.	
Learning outcomes	Having passed the subject, the student: <ol style="list-style-type: none"> 1. knows the terminology of health care system and social protection; 2. describes the financing of health care system, insurance system of the residents, planning of resources, providing health care service and management of health-related information; 3. applies one's knowledge into making an oral presentation; 4. uses the acts regulating dental technology in planning providing the service; 5. passes the test on the subject. 	

Module title: PROFESSIONAL DEVELOPMENT		Volume: 7 ECTS Code: 2PA13
Goal	Student knows central terms and theories in ethics, entrepreneurship, management training and follows ethic principles in one's action. Student realizes the importance of personal professional development in future professional work. Student acquires knowledge and skills to develop the speciality and for life-long learning.	
Learning outcomes	Having passed the module, the student: <ol style="list-style-type: none"> 1. has an overview of the content of the curriculum and study programmes, is able to use the study information system; 2. knows, recognizes and uses different learning strategies and learning methods used in the college; 3. is capable of planning and directing independent work and career as well as develop one's learning skills; 	

	<p>4. knows how to systemize and generalize what has been learnt during the curriculum subjects, apply theoretical knowledge into practice;</p> <p>5. knows how to critically analyze, discuss and defend one's viewpoints;</p> <p>6. knows, implements and develops different communication techniques, one's personal learning resources, capabilities. Understands the importance of individual motivation in acquiring the speciality and planning one's career;</p> <p>7. acquires knowledge and experience to instruct fellow students, values and uses the principles of teamwork;</p> <p>8. acquires knowledge and skills to develop the speciality and life –long learning.</p>
Module evaluation: Module is evaluated within a subject	
Subjects: Introduction to Learning, Speciality Development, Entrepreneurship and Management Studies.	

Code: 2PA1300	Subject title Introduction to Learning	Volume: 2 ECTS
Goal	Student knows how to use the learning environment	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows the terms connected to learning and the basics of study organization and communication in Tallinn Health Care College; 2. is aware of the position of Tallinn Health Care College in Estonian educational and health care system and the general system of higher education in Estonia; 3. understands the importance of interational cooperation in the learning process; 4. knows how to use the study information system and find necessary documents; 5. knows how to find information about student life and communication; 6. knows how to find reliable data sources, knows the main features of evidence-based source, knows the basics of documentation and academic writing; 7. understands the connection between learning and speciality of dental technician; 8. can introduce general principles of the profession; 9. is familiar with the Professional Standard (2013). 	

Code: 2PA13RTFS	Subject title Basics of Public Health, Sociology and Philosophy	Volume: 5 ECTS
Goal	To familiarize oneself with philosophical trends on world and its importance in terms of science and human behaviour. Main terms of public health, sociology are tackled with an emphasis on problem detection and solving possibilities in modern society.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. knows main theories of philosophy and sociology throughout the history; 2. knows the main concepts of public health, philosophy, main terms and 	

	<p>theories;</p> <p>3. knows how to tackle different paradigms in understanding the changes occurring in society;</p> <p>4. is capable of introducing and analysing social problems and defend one's viewpoints.</p>
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Code: 2PA13EA	Subject title Speciality Development	Volume: 2 ECTS
Goal	Student understands the importance of personal professional development and acquires knowledge to develop one's profession, for life-long learning and purposeful planning of one's career.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. can systematize and generalize what has been learnt and uses professional terminology, understands the importance of life-long learning; 2. knows, recognizes and uses different learning styles and communication techniques; 3. is able to plan and direct independent work; 4. can critically analyse and argue on one's viewpoints; 5. knows the basics of time and career management; 6. acquires knowledge and experience on leadership, supervision and teamwork. 	

Code: 2PA13EJ	Subject title Entrepreneurship and Management Studies	Volume: 3 ECTS
Goal	Student knows, recognizes and is able to use economical and leadership Ürelated knowledge in one's activities.	
Learning outcomes	<p>Having passed the subject, the student:</p> <ol style="list-style-type: none"> 1. understands general economic principles to be used in one's professional activities; 2. knows how to compile a activity plan to start an entrepreneurship or apply for finances; 3. knows the basics of financial management and bookkeeping of an organization; 4. knows the principles of organization management and understands the importance of planning in terms of the sustainability of an organization; 5. can use principles of marketing theory in planning the organizations work; 6. knows the basics of working with staff, management and project work and is able to use them in designing the staff policy of the organization; 7. knows the basics of strategic planning and is able to use it in one's professional activity; 8. compiles a necessary business plan to start a business organization. 	

Module title: RESEARCH AND DEVELOPMENT WORK METHODOLOGY	Volume: 16 ECTS Code: 2UAM13
Goal	Student knows and recognizes the starting points, models and methods of

	evidence based research work, can collect and process data, compose an applied research work that meets all requirements, present the work results in Estonian and English, and to apply the acquired knowledge into practice.
Learning outcomes	Having passed the module, the student: <ol style="list-style-type: none"> 1. possesses general knowledge about information society, info-technological devices, data studies and databases; 2. uses e-learning possibilities in web-based learning environments; 3. knows, recognizes and uses terminology in Estonian and English; 4. knows and recognizes the basis, models and methods of different research works and researches, can apply them; 5. is able to define the objective of the work, hypothesis and action plan originating from evidence-based knowledge, has and understanding and skills to apply it; 6. can compile and present written works and defend it in discussion; 7. uses different starting points, models and methods of research work.
Module evaluation: Subject-based evaluation	
Subjects: Research Methodology, Basics of Information Search, Information Search, Professional English I and II, Course paper.	

COde: 2UAM13UTM	Subject title Research Methodology	Volume: 2 ECTS
Goal	Student knows and recognizes the main components of research, the basics of data collection and analysis and the criteria of validity.	
Learning outcomes	Having passed the subject, the student: <ol style="list-style-type: none"> 1. knows the main terminology of the speciality, knows the qualities of evidence-based source; 2. knows and recognizes the main components of research paper including scientific papers, the principles of data collection and formatting, can format data. 3. can analyse the collected data and draw reliable conclusions. 	

Code: 2UAM13IA	Subject title Basics of Information Search I	Volume: 2 ECTS
Goal	In passing the subject practical skills for processing information are acquired: in compiling student papers and other documents, formatting (using software) and skills needed to orientate in online databases.	
Learning outcomes	Having passed to subject, the student: <ol style="list-style-type: none"> 1. knows the possibilities of using information and communication technologies, its problems, dangers and is beware of them, knows main terminology of information technology and copywrite; 2. can effectively use office software in text formatting, table calculations, presentation graphics (including LibreOffice, OpenOffice, etc); 3. understands the meaning of information search and uses various information sources being able to differentiate between scientific sources from the ones not suitable for research work. 	

Code: 2UAM13IO	Subject title Basics of Information Search II	Volume: 2 ECTS
Goal	To equip students with knowledge and practical skills about information search and formatting, compiling a research paper, data analysis using needed statistical methods.	
Learning outcomes	Having passed the subject, the student: 1. knows how to search and use different professional databases and information sources; 2. knows how to use software to statistically format and present data; 3. knows the principles of copywrite and values it.	

Code: 2UAM13EIK-1	Subject title Professional English 1	Volume: 2 ECTS
Goal	Student is familiar with professional terminology in English in order to read and search for speciality literature, to compile presentations and their oral presentation within the limits of one' sprofession.	
Learning outcomes	Having passed the subject, the student: 1. knows professional terminology in English; 2. can translate professional literature and is familiar with the principles of referring.	

Code: 2UAM13EIK-2	Subject title Professional English 2	Volume: 2 ECTS
Goal	Student is familiar with professional terminology in English in order to read and search for speciality literature, to compile presentations and their oral presentation within the limits of one's profession.	
Learning outcomes	Having passed the subject, the student: 1. knows professional terminology in English; 2. can translate professional literature and is familiar with the principles of referring.	

Code: 2UAM13KT	Subject title Course paper	Volume: 6 ECTS
Goal	Student understand the stages and principles of empirical work. Student acquires knowledge and skills to collect data, analyse data, to compile and present the work.	
Learning outcome	Having passed the subject, the student: 1. can systematize and generalize what has been learnt and use professional terminology; 2. knows, recognizes and uses diferent methods of data-search; 3. is able to plan and conduct independent work; 4. can critically analyse and argue when defending one's viewpoints; 5. knows the principles of compiling and presenting a research; 6. has knowledge and experience of compiling a research.	

Module code	
Module title	OPTIONAL SUBJECTS
Module volume	5 ECTS / 130 h
Contact hours (including e-learning)	According to the subject chosen
Module goal	Complementing professional knowledge according to the goal of the curriculum and developing general knowledge via subjects that are independently selected by the student.
Learning outcomes	According to the learning outcomes of the chosen subject
Independent work	According to the independent work of the chosen subject
Evaluation	Non-differentiated grading

Module title: PRE-DIPLOMA PRACTICE		Volume: 23 EAP Code: 6DP13
Goal	Student develops professionally, values the principles of life-long learning.	
Learning outcomes	<p>In passing the module, the student:</p> <ol style="list-style-type: none"> 1. knows and recognizes the clinical and laboratorial stages of producing removable and fixed dentures, and orthodontic appliances, can produce them, has the preparation for passing the professional skills and knowledge to others; 2. is independently able to critically and creatively interpret the collected information, shows initiative and responsibility in developmental work as well as team-work; 3. can analyze in written report as well as in seminar the working process and final result of technological, management related and organizational components, and to give one's evaluation; 4. can compare the execution of similar or same work types in different environments, to compare different environments and practical training bases; 5. connects and values the acquired theories and practices with speciality and all other curriculum subjects, can express it in compiling a study-map. 	
Module evaluation: Exam		
Subjects: Pre-diploma practice		
Code 6DP13DP	Subject title Pre-Diploma practice	Volume: 23 ECTS
Goal	Student develops professionally, values the principles of life-long learning.	
Learning outcomes	<p>Having passed the practice, the student:</p> <ol style="list-style-type: none"> 1. knows and recognizes the clinical and laboratorial stages of producing removable and fixed dentures, and orthodontic appliances, can produce them, has the preparation for passing the professional skills and knowledge to others; 2. is independently able to critically and creatively interpret the collected information, shows initiative and responsibility in developmental work as well as team-work; 3. can analyze in written report as well as in seminar the working process 	

	<p>and final result of technological, management related and organizational components, and to give one's evaluation;</p> <p>4. can compare the execution of similar or same work types in different environments, to compare different environments and practical training bases;</p> <p>5. connects and values the acquired theories and practices with speciality and all other curriculum subjects, can express it in compiling a study-map.</p>
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FINAL WORK/FINAL EXAM

Module title: FINAL WORK		Volume: 7 EAP Code: 6DT13
Goal	Student acquires the skills to clearly formulate the research problems, the ability of complex analysis and synthesizing new information; is prepared to work at the acquired profession and continue one's studies at the Master's level.	
Learning outcomes	<p>In passing the module, the student:</p> <ol style="list-style-type: none"> 1. demonstrates the acquired knowledge, skills and value judgements by compiling the Diploma Paper; 2. can systematize and generalize the acquired knowledge, use evidence-based literature; 3. uses different data-search possibilities; 4. can critically analyze, argue and defend the viewpoints in the paper, synthesize new information; 5. can present the findings of the research; 6. Can oppose other researchers' work among which are fellow group members. 	
Evaluation of the Module: Exam		
Subjects: Diploma Paper		

Code 6DT13DT	Subject Title Diploma Paper	Volume 7 ECTS
Goal	Student acquires the skills of clear formulation of research problem, complex analysis and ability to synthesize new information. Student is prepared to work on the acquired profession and continue one's studies on a Master's level.	
Learning outcomes	<p>In passing the subject, the student:</p> <ol style="list-style-type: none"> 1. demonstrates the acquired knowledge, skills and value judgements in compiling a diploma paper; 2. can synthesize and generalize what has been learnt by using evidence-based literature; 3. uses different data-search possibilities; 4. can critically analyze, argue and defend one's work, synthesize new information; 5. can present the findings of the research; 6. can oppose other researcher's including fellow course member's work. 	