Документ подписан простой электронной подписью Информация о владельце: ФИО: Ястребов Олег Але**Federal State Autonomous Educational Institution of Higher Education** Должность: Ректор **PEOPLES** Дата подписания: 04.10.2024 14:01:30 **NANIED AFTER PATRICE LUMUMBA** Уникальный программный ключ: ca953a0120d891083f939673078ef1a989dae18a RUDN University Institute of Medicine

educational division (faculty/institute/academy) as higher education programme developer

COURSE SYLLABUS

Prosthodontics (Complex Prosthetics)

course title

Recommended by the Didactic Council for the Education Field of:

31.05.03 Dentistry

field of studies / speciality code and title

The course instruction is implemented within the professional education programme of higher education:

Dentistry higher education programme profile/specialisation title

2024 - 2025

1. COURSE GOAL(s)

The goal of the course "Prosthodontics (complex prosthetics)" is to train a dentist who is able to diagnose and plan the prosthetic stage of the complex treatment of patients with diseases of the dentition, taking into account the individual characteristics of the disease andthe age of the patient.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "Prosthodontics (complex prosthetics)" is aimed at the formation of the following competencies (parts of competencies): GC-1, GPC-5, GPC-6, PC-1, PC-5, PC-6.

Competence Competences that		Competence formation indicators		
code	Competence descriptor	(within this course)		
GC-1	Being able to implement critical analysis of problem situations based on systems approach, develop an action strategy.	GC-1.1. Students should be able analysing the problem situation as a system identifying its components and links between them.		
GPC-5	Being able to examine patients to determine a diagnosis when solving professional tasks	 GPC-5.1. Gathering anamnesis by analysing the patient's complaints, making a physical examination at a dental appointment. GPC-5.2. Formulating a preliminary diagnosis and drawing up a plan for laboratory and instrumental examinations of a dental patient. GPC-5.3. Compiling medical documentation for a dental patient in accordance with regulatory requirements. GPC-5.8. Conducting differential diagnosis with other diseases/conditions, including the urgent ones. GPC-5.9. Making a diagnosis based on the current international statistical classification of diseases and health problems. 		
GPC-6	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	GPC-6.1. Developing a plan for dental disease treatment taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards. GPC-6.2. Selecting medical products (including dental materials) for drawing up a comprehensive plan for dental disease treatment. Following up the treatment of a patient		
PC-1	Being able to make an	PC-1.1. Making an initial examination and/or		

Table 2.1. List of competences that students acquire through the course study

Competence code	Competence descriptor	Competence formation indicators (within this course)
code	examination of a patient in order to determine a diagnosis.	reexamination of a patient in order to make a preliminary diagnosis. PC-1.2. Receiving information from patients (their relatives/legal representatives); conducting a questionnaire survey of patients regarding their general health status; identifying concomitant diseases in order to make a preliminary diagnosis. PC-1.3. Detecting if patients have dentoalveolar, facial anomalies, deformities and prerequisites for their development, defects in the crowns of teeth and dentition on the basis of the patient examination; laboratory, instrumental, and additional examinations in order to make a preliminary/final diagnosis. PC-1.4. Detecting if patients have risk factors for oncopathology (including various background processes, precancerous conditions) based on laboratory, instrumental and additional examinations in order to make a preliminary/final diagnosis. PC-1.5. Making a preliminary/final diagnosis based on the patient examination; laboratory and instrumental examinations.
PC-2	Being able to prescribe, monitor the efficacy and safety of non-drug and drug treatment	PC-2.6. Providing orthopaedic treatment for persons with defects in teeth, dentition within the temporization procedure, rehabilitation of single defects in the dentition, dental prostheses of up to three units (excluding dental implants prosthetics), partial and complete removable laminar denture using modern treatment methods approved for use in medical practice.
PC-6	Being able to analyze and present in public medical information based on evidence-based medicine, participate in scientific research, introduce new methods and techniques aimed at	 PC-2.6. Providing orthopaedic treatment for persons with defects in teeth, dentition within the temporization procedure, rehabilitation of single defects in the dentition, dental prostheses of up to three units (excluding dental implants prosthetics), partial and complete removable laminar denture using modern treatment methods approved for use in medical practice. PC-6.1. Searching for medical information based on evidence-based medicine, interpreting

Competence code	Competence descriptor	Competence formation indicators (within this course)
	protecting public health	data from scientific publications and/or preparing a presentation to make medical information, the results of scientific research public.

3.COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the <u>core/variable/elective*</u> component of (B1) block of the higher educational programme curriculum.

* - Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results

Compete nce code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
CC-1.	Able to carry out a critical analysis of problem situations based on a systematic approach, to develop an action strategy.	 Cariesology and the disease of hard dental tissues. Prosthodontics (simple prosthetics) 	 Prosthodontics (complex prosthetics) Gnathology and functional diagnostics of temporomandibular joint
GPC-5.	Able to conduct a patient examination in order to establish a diagnosis in solving professional problems	 Cariesology and the disease of hard dental tissues. Prosthodontics (simple prosthetics) 	 Prosthodontics (complex prosthetics) Gnathology and functional diagnostics of temporomandibular joint

GPC-6.	Able to prescribe, monitor the effectiveness and safety of non-drug and drug treatment in solving professional problems	•	Cariesology and the disease of hard dental tissues. Prosthodontics (simple prosthetics)	•	Prosthodontics (complex prosthetics) Gnathology and functional diagnostics of temporomandibular joint
PC-1.	Able to conduct examination of the patient to establish a diagnosis.	•	Cariesology and the disease of hard dental tissues. Prosthodontics (simple prosthetics)	•	Prosthodontics (complex prosthetics) Gnathology and functional diagnostics of temporomandibular joint
PC-2.	Capable of prescribing, monitoring the efficacy and safety of non-drug and drug treatments	•	Cariesology and the disease of hard dental tissues. Prosthodontics (simple prosthetics)	•	Prosthodontics (complex prosthetics) Gnathology and functional diagnostics of temporomandibular joint
PC-6.	Able to analyze and publicly present medical information based on evidence- based medicine, to participate in scientific research, to introduce new methods and techniques aimed at protecting public health		Cariesology and the disease of hard dental tissues. Prosthodontics (simple prosthetics)	•	Prosthodontics (complex prosthetics) Gnathology and functional diagnostics of temporomandibular joint

* To be filled in according to the competence matrix of the higher education programme.

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course "Prosthodontics (complex prosthetics) is 8 credits (288 academic hours).

Table 4.1. Types of academic activities during the periods of higher education programme mastering (*full-time training*)*

	Total	Semesters/training modules			
Type of academic activities	academic hours	7	8	9	
Contact academic hours	179	72	72	144	
including:					

		Total	Semesters/training modules			ules
Type of academic activi	Type of academic activities		7	8	9	
Lectures (LC)						
Lab work (LW)		179	48	51	80	
Seminars (workshops/tutorials) (S	Seminars (workshops/tutorials) (S)					
Self-studies		76	21	18	37	
Evaluation and assessment (exam/passing/failing grade)		33	3	3	27	
Course workload	academic hours_	288	72	72	144	
	credits	8	2	2	4	

* To be filled in regarding the higher education programme correspondence training mode.

5. COURSE CONTENTS

Course module title	Course module contents (topics)	Academic activities types
Section 1. Replacement of dentition defects	Topic 1.1. Partial teeth absence. Methods of patient	LW
	contraindications for the use of bridges. Criteria for choosing the number of abutment teeth. Types of dental bridges. Fitting and fixation the bridges. Quality criterias of prosthetic treatment with bridges. Instruction for	
with fixed prosthodontics	dental bridges usage. Topic 1.2. Clinical and lab stages of prosthetic treatment with bridges.	LW LW
structures	Topic 1.3. Peculiarities of abutment teeth preparation while manufacturing a bridge.	LW
	Topic 1.4 Fitting and fixation of a bridge Quality criterias of prosthetic treatment with bridges. Instruction for dental bridges usage.	LW
	Topic 2.1. Examination of patient with partial teeth absence for future planing removable prostheses. Indications and contraindications for removable denture.	LW
Section 2. Removable denture treatment	Topic 2.2. Types of removable dentures in case of partial absence of teeth. Clinical and laboratory stages of prosthetic treatment with removable dentures. Fixation methods for partial lamellar dentures, quality criteria.	LW
	Topic 2.3. Clasp dentures. Indications for use, basic structural elements. Clinical and laboratory stages of their manufacturing. Quality criteria. Rules for the use and care of lamellar and clasp dentures.	LW
Section 3. Prosthetic treatment of	Topic 3.1. Etiology, pathogenesis, classification, clinical manifestations of periodontal disease. Modern methods of diagnosis in the clinic of prosthetic dentistry.	LW
periodontal	Topic 3.2. Clinical and biomechanical substantiation	LW

Table 5.1. Course contents and academic activities types

1		LW
diseases	of the orthopedic stage of complex treatment of patients	
	with periodontal disease, especially the design of	
	medical devices and prostheses.	
	Topic 3.3. Clinical and laboratory stages of	LW
	manufacturing splinting structures.	
Section 4.	Topic 4.1. Etiology, pathogeny, classification, and	
Prosthetic	clinical symptoms of excessive attrition of teeth.	
treatment of	Diagnostic aids and prosthetic restoration of excessive	LW
increased abrasion	attrition of teeth.	LW
of hard tissues of		
teeth		
	Topic 4.2. Methods of preparing the oral cavity for	LW
	prosthetics with excessive tooth attrition.	T XX7
	Topic 4.3. Methods of prosthetic treatment of patients with various clinical manifestations of tooth attrition.	LW
Section 5.		I W/
Prosthetic treatment	Topic 5.1. Etiology, pathogenesis, classification, clinical manifestations of deformation of the dentition and bite in	
of deformations and		
anomalies of	diagnosis.	
dentition and bite.	Topic 5.2. Methods of elimination of deformation and	LW
	justification of tactics of management of patients with	
	this pathology. Stages of treatment.	
	Topic 6.1. Indications and contraindications to the use of	LW
	implant supported denturs. Features of clinical and	
Section 6.	laboratory stages of prosthetic treatment with removable	
Prosthetic treatment	and fixed implant-supported dentures.	
of patients with	Topic 6.2. Features of clinical and laboratory stages of	LW
dentures supported	prosthetic treatment with removable implant-supported	
by implants	dentures.	
	Topic 6.3. Features of clinical and laboratory stages of	LW
	prosthetic treatment with implant-supported fixed	
	dentures.	
Section 7.	Topic 7.1. Tactics of prosthetic treatment patients with	LW
Prosthetic	somatic pathology (CVS, GIT, endocrine diseases,	
treatment of	cancer of oral cavity, mental diseases, infection diseases	
patients with	(HIV, tuberculosis, candida), chronic diseases of skin	
somatic diseases.	and mucous of oral cavity and lips) who are in need of	
Prosthetic	prosthetic rehabilitation.	
treatment of	Topic 7.2. Intolerance of materials and structures of	LW
patients with	dentures. Diagnosis, prevention, features of secondary	
chronic diseases of	prosthetics.	
the oral		
cavity.	Tomic 9.1 Fundamentals of all and in the last	I W
Section 8.	Topic 8.1. Fundamentals of phonetics and articulation in	LW
Phonetic aspects	prosthetic dentistry. Influence of design features of	
of prosthetic	removable denture bases, location of posterior teeth,	
treatment with the	crown height, palatal surface shape, interalveolar	
use of removable and fixed dental	distance on sound pronunciation disorders. The main	
and fixed dental and jaw prostheses	methods for assessing speech function in prosthetic dentistry.	
	y for full -time training: <i>LC</i> - <i>lectures</i> ; <i>LW</i> - <i>lab work</i> ; <i>S</i> - <i>seminars</i> .	

* - to be filled in only for **<u>full</u>**-time training: *LC* - *lectures; LW* - *lab work; S* - *seminars.*

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

		Specialised educational / laboratory
	Classroom	equipment, software, and materials for
Type of academic	equipment	course study
activities	equipment	•
		(if necessary)
		12 sets of specialized furniture - tables for
		simulators and 2 dental simulators "Saratoga
		S.p.a" (retractable blocks of a doctor [2 M4
		turbine hoses] and an assistant [multifunctional gun, saliva ejector, vacuum
		cleaner], multifunctional pedal, water and
		compressed air supply system for
		simulators, aspiration Venturi system with a
		centralized electric pump, FRASAKO dental
		phantoms (Germany) on a minitorso with an
		articulator, models of the upper and lower
		jaws of the ChVN 28 type (Zarnitsa, Russia)
		with a face mask and mechanical adjustment
	An auditorium for laboratory work, individual consultations, current control, and intermediate	of the phantom position along 2 axes in the
		form of a long table for 12 vis-a-vis places
		and 2 places for a four-seat module in the
		form of a "chamomile." Wooden chair with
		a back on wheels - 14 pcs.
Lab-work №1	certification, equipped with	Special sink made of stainless steel with two
	a set of specialized furniture	sinks and a gypsum trap.
	and equipment.	Gypsum tables for 14 jobs.
		Mobile waste bin with 250 liter lid.
		-School school desk double -15,
		- chair for student 14 and teacher 1,
		- cabinet for storage of dental materials and instruments -2 pcs,
		- glass case for visual aids,
		-LCD panel,
		- a personal computer with Internet access,
		The chair is dental.
		White magnetic board for drawing with felt-
		tip pens
		Specialized educational/laboratory
		equipment:
		Vibrating table - 4.
		Trimmer -1.

Table 6.1. Classroom equipment and technology support requirements

Classroom type	Equipment of the classroom	Specialized educational / laboratory equipment, software and materials for mastering the discipline
		(if necessary)
		Vacuum plaster mixer - 2.
		Scales for gypsum-7 Buckets for plaster and second 7
		Buckets for plaster and scoops-7 Apparatus for cleaning and lubricating tips
		"Assistina"-1.
		Steam jet device for cleaning dentures - 1 Parallelometers -14
		Electric water bath 4
		Dental electric spatula -14.
		Dental drill -14.
		Apparatus for choosing the color of teeth
		"Easyshade"-1
		Apparatus for determining the damping
		capacity of the periodontium Periotest-1.
		Light-curing lamps 14.
		Toolkit (each semester):
		Disposable examination kits 14 kits per
		subgroup per semester;
		turbine tips - 14 pcs.,
		straight tips -14,
		Protective screens for a dentist -14
		Silicone flasks for mixing gypsum-14,
		Spatulas for kneading gypsum -14
		Plaster knife - 14
		Dental spatula - 14 pcs.
		Impression spoons number 3 for the upper
		and lower jaws metal perforated by 14.
		Glass for mixing cement - 14
		Spatula for mixing cement-14
		Crown removers of various types -7
		Crampon tongs -14
		Consumables
		Clasp wire 2 cm per student in the 8th
		semester.
		Models of the upper and lower jaws ChVN
		28A - 14 sets
		Zarnitsa type teeth for ChVN28A - No. 36,
		No. 34, No. 11 - 1 tooth per student in 7 and
		9 semesters.
		Alginate weight 200 g per student in each
		semester Cynsum Grada 2 500 g par student in aach
		Gypsum Grade 2 500 g per student in each
		semester
		Periodontal probes 14.
		Burs for preparation set of 5 Vladmiva burs
		per student in 7th and 9th semesters.

Classroom type	Equipment of the classroom	Specialized educational / laboratory equipment, software and materials for mastering the discipline (if necessary)
		Articulation paper 100 microns thick - 2 sheets for each student in each semester. C-silicone for impressions - a set of 900 grams of the main mass and corrective with a catalyst for each subgroup in 7 and 9
		semesters. Water dentin -1 g per student in semester 7.
		Insulating cotton swabs, 2 per student in the 7th semester. Plastic bridge for teeth 36 and 34 for model
		ChVN28A - 1 per student in the 7th semester
		A set of materials for adhesive fixation -1. Flowable composite for temporary splinting of teeth 1g per student in the 8th semester. Set for splinting "Armosplin" 1 per group in the 8th semester.
		A set of wax blanks for Akker clasps 1 per group in the 8th semester. Dense light-curing composite 1.0 g per student in semester 9
		<i>Visual tutorials:</i> Set of IRIS implant system - 7 per subgroup in the 9th semester Set of Straumann implant system 7 per
		subgroup in semester 9 Plastic models with 2 Straumann implant
		analogues 7 per subgroup in semester 9 Plastic LF models with 4 analogs of IRIS-7
		implants per subgroup in the 9th semester Forms with the dental formula of the Infodent -14 program in the 9th semester
		Forms of odontoparodontograms -14 in the 8th semester
		Orthopantomograms with periodontal pathology -14 in the 8th semester. Stand with types of tooth preparation for
		various types of prostheses. A set of materials and devices "Stages of
		manufacturing a stamped-brazed bridge prosthesis", "Stages of manufacturing a metal-ceramic bridge prosthesis". Phantom
		model with different types of bridges Non-adjustable articulators (occluders) with models with deformation of the dentition
		and a bridge-like apparatus for the

Classroom type	Equipment of the classroom	Specialized educational / laboratory equipment, software and materials for mastering the discipline (if necessary)
		restructuring of the Popov phenomenon -14 per group in the 9th semester
Lab-work №2	An auditorium for practical work of students with computer training programs, equipped with a set of specialized furniture and computers with Internet access.	15 workplaces (office tables with computers) with Internet access and Avantis 3D software Software Infodent "Dental Clinic" Software Exokad "Bugel prostheses" LCD panel
Dental office №1	Dental office of a dental medical institution, provided under an agreement with RUDN University for conducting practical clinical classes for 5th year students, equipped with a dental unit and all necessary equipment, instruments and materials for dental prosthetic treatment in accordance with the Procedure for providing dental care to the adult population of the Russian Federation	Personal computer with Avantis 3D software Software Infodent "Dental Clinic" Apparatus Periotest M Apparatus AFS Semi-adjustable articulator with face bow Alginate and silicone impression materials, sets of metal perforated impression trays, masks, gloves
Dental office №2	Dental office of a dental medical institution, provided under an agreement with RUDN University for conducting practical clinical classes for 5th year students, equipped with a dental unit and all necessary equipment, instruments and materials for dental prosthetic treatment in accordance with the Procedure for providing dental care to the adult population of the Russian Federation	Personal computer with Avantis 3D software Software Infodent "Dental Clinic" Apparatus Periotest M Apparatus AFS Semi-adjustable articulator with face bow Alginate and silicone impression materials, sets of metal perforated impression trays, masks, gloves
Self-studies	An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers	Avantis 3D software Software Infodent "Dental Clinic" Software Exocad "Bugel prostheses" Educational videos Basic and additional educational materials

Classroom type	Equipment of the classroom	Specialized educational / laboratory equipment, software and materials for mastering the discipline (if necessary)
	with access to the EIOS.	

1. METHODOLOGICAL AND INFORMATIONAL SUPPORT FOR THE DISCIPLINE

Main literature:

1. Orthopedic dentistry: textbook / S.D. Arutyunov, E.A. Bragin, S.I. Burlutskaya [and others]; edited by E.S. Kalivradjian, I.Yu. Lebedenko, E.A. Bragin, I.P. Ryzhova. - 3rd ed., Rev. and add. - M.: GEOTAR-Media, 2020 --- 800 p. : ill. - ISBN 978-5-9704-5272-1: 2200.00.

2. Technology of dental and maxillary prosthetics [Text]: a guide for practical training / V. N. Trezubov, E. A. Bulycheva, S. D. Arutyunov. - Moscow: Practical Medicine, 2020 .-- 167 p. : ill., color. silt ; 25 cm. - Bibliography: p. 167 (10 titles). - 500 copies - ISBN 978-5-98811-582-3 (in translation)

3. Guide to practical exercises in orthopedic dentistry for 3rd year students / edited by I. Yu. Lebedenko, V. V. Erichev, B. P. Markov / (Authors: S. D. Arutyunov, etc.) allowance. - M .: Practical Medicine, 2006. (Part I. - 432 s).

4. Denture technology: textbook / S.D. Arutyunov, D.M. Bulgakova, M.G. Grishkina [and others]; ed. M.M. Rasulova, T.I. Ibragimova, I. Yu. Lebedenko. - 2nd ed., Rev. and add. - M.: GEOTAR-Media, 2016 .-- 384 p. - ISBN 978-5-9704-3830-5. http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn_FindDoc&id=475755&idb=0

Additional literature

- Prosthetic dentistry [Text]: Textbook / V.N. Kopeikin [and others]; Ed. V.N. Kopeikina, M.Z. dental faculties of medical universities). - ISBN 5-225-04598-Mirgazizova. - 2nd ed., Add. - M.: Medicine, 2001 .-- 624 p. : ill. - (Educational literature for students 7: 276.00.56.6 - O-70
- I.Yu. Lebedenko, T.I. Ibragimov, A.N. Ryakhovsky Functional and instrumental research methods in orthopedic dentistry [Text]: Textbook for universities. - M.: Medical Information Agency, 2003. - 128 p. : ill. - ISBN 5-89481-135-X: 260.00.56.6 - L33.
- Fixed prosthetics: the technology of manufacturing a steel stamped crown [Electronic resource]: Teaching aid / L.S. Sergeeva. SPb. : Publishing house "Lan", 2018. 52 p. (Textbooks for universities. Special literature). ISBN 978-5-8114-2863-2.
- 4. Prosthetic dentistry: national leadership / ed. I.Yu. Lebedenko, S.D. Arutyunova, A.N. Ryakhovsky. GEOTAR Media, 2016 --- 824 p.
- 5. Orthopedic dentistry: national guidelines. Volume 2. / ed. I.Yu. Lebedenko, S.D. Arutyunova, A.N. Ryakhovsky. GEOTAR Media, 2022. 416 p. ISBN: 978-5-9704-6367-3.

Resources of the information and telecommunications network "Internet":

1. RUDN ELS and third-party ELS, to which university students have access based on concluded agreements:

- RUDN Electronic Library System - RUDN EBS http://lib.rudn.ru/MegaPro/Web

- ELS "University Library Online" http://www.biblioclub.ru

HEAD **OF HIGHER EDUCATION PROGRAMME:**

HEAD OF EDUCATIONAL DEPARTMENT:

Professor

of Prosthetic Dentistry,

Professor of the Department

of prosthetic dentistry

position, department

name of department

signature

signature

Bykova M. V.

normative act of RUDN University (regulations / order). **DEVELOPERS:**

* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local

8. ASSESSMENT TOOLKIT AND GRADING SYSTEM* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL UPON COURSE COMPLETION

level (GC-1, GPC-5, GPC-6, PC-1, PC-5, PC-6.) upon the course study completion are

The assessment toolkit and the grading system^{*} to evaluate the competences formation

3. The guidelines for writing a course paper / project (if any) on the course Prosthodontics (Complex Prosthetics).

4.

Training toolkit for self- studies to master the course *:

2.Databases and search engines:

- EBS "Trinity Bridge"

- EBS "Lan" http://e.lanbook.com/

- electronic fund of legal and normative-technical documentation http://docs.cntd.ru/

- EBS Yurayt http://www.biblio-online.ru

- ELS "Student Consultant" www.studentlibrary.ru

- Yandex search engine https://www.yandex.ru/

specified in the Appendix to the course syllabus.

- Google search engine https://www.google.ru/

- abstract database SCOPUS http://www.elsevierscience.ru/products/scopus/

1. The set of lectures on the course Prosthodontics (Complex Prosthetics).

2. The laboratory workshop (if any) on the course Prosthodontics (Complex Prosthetics).

* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

name and surname

Lebedenko. L.Yu

First Deputy Director of

Medical Institute for academic

affairs in the field of Dentistry

Razumova S.N

position, department

signature

name and surname