COLLEGE OF PROFESSIONAL STUDIES - INTERNATIONAL CENTER OF PROFESSIONAL STUDIES
(hereinafter: **ICEPS**)

Study program:

Undergraduate professional studies

NURSING

~ COURSE BOOK ~

Courses by semesters and years of study program Nursing, undergraduate professional studies

- **Marks for Form of Teaching**: **theor lect** = theoretical lectures; **exer** = theoretical exercises; **other** = other forms of teaching (individual work with students, project work...); **st-res pap** = study-research paper; **prof pract** = professional (clinical) practice (in the School's Teaching Bases)
- **Marks for Mandatory/Elective courses**: **m** = mandatory course; **e** = elective course
- **Marks for Type of Courses**: **ag** = academic-general education; **p** = professional; **pa** = professional-applicative

No	Course Code	Course Name	Sem.	Active Lessons				prof pract	ECTS	Course m/e	Course Type
				theor lect	theor exer	other forms	st-res pap				
THE FIRST YEAR											
1	zn-eng-01	Anatomy and Physiology	1	45	15	0	0	0	7	m	pa
2	zn-eng-02	Basics of Nursing	1	30	15	0	0	300	8	m	ag
3	zn-eng-03	Ethics in Health Care	1	30	30	0	0	0	5	m	pa
4	zn-eng-04	Geriatrics with Nursing in Geriatrics	1	30	30	0	0	180	5	m	ag
5	zn-eng-05	Basics of Information and Communication Technologies	1	30	30	0	0	0	5	m	ag
6	zn-eng-izb-01	Elective Course 1	1	30	30	0	0	0	5	e	
6a	zn-eng-izb-01-a	Basics of Biochemistry	1	30	30	0	0	0	5	e	pa
6b	zn-eng-izb-01-b	Business Communication Skills	1	30	30	0	0	0	5	e	pa
6v	zn-eng-izb-01-v	Medical and Pharmaceutical Waste	1	30	30	0	0	0	5	e	ag
6g	zn-eng-izb-01-g	Specialized English for Medicine 1	1	30	30	0	0	0	5	e	ag
6d	zn-eng-izb-01-d	Specialized German for Medicine 1	1	30	30	0	0	0	5	e	ag
7	zn-eng-06	Hygiene with the Basics of Microbiology and Parasitology	2	30	30	0	0	330	5	m	p
8	zn-eng-08	Health Care Education Methodology and Health Promotion	2	30	30	0	0	0	5	m	p
9	zn-eng-09	Public Health	2	30	30	0	0	0	5	m	ag
10	zn-eng-18	Organization of Health Care Systems	2	30	30	0	0	0	5	m	ag
11	zn-eng-izb-02	Elective Course 2	2	30	30	0	0	0	5	e	
11a	zn-eng-izb-02-a	Marketing of Health Care Institutions	2	30	30	0	0	0	5	e	pa
11b	zn-eng-izb-02-b	Biological Materials and Laboratory Techniques	2	30	30	0	0	0	5	e	pa
Total number of classes and ECTS per year:				**345**	**300**	**0**		**810**	**60**		
THE SECOND YEAR											
12	zn-eng-07	Pathophysiology	3	45	30	0	0	0	6	m	p
13	zn-eng-11	Basics of Internal Medicine	3	45	15	0	0	0	5	m	p
14	zn-eng-12	Basics of Pediatrics	3	30	15	0	0	0	5	m	p
15	zn-eng-13	Basics of Gynecology and Obstetrics and Nursing in Gynecology and Obstetrics	3	30	60	0	0	180	5	m	pa
16	zn-eng-izb-02-a	First Aid	3	30	30	0	0	0	5	m	pa
17	zn-eng-izb-03	Elective Course 3	3	30	30	0	0	0	5	e	
17a	zn-eng-izb-03-a	Specialized English for Medicine 2	3	30	30	0	0	0	5	e	ag
17b	zn-eng-izb-03-b	Specialized German for Medicine 2	3	30	30	0	0	0	5	e	ag
17v	zn-eng-izb-03-v	Dietary Issues and Nutrition of Inpatients	3	30	30	0	0	0	5	e	pa
17g	zn-eng-izb-03-đ	Nutritionism	3	30	30	0	0	0	5	e	ag
17d	zn-eng-izb-03-d	Medical Genetics and Molecular Biology	3	30	30	0	0	0	5	e	ag
18	zn-eng-15	Internal Medicine Patient Nurisng	4	30	30	0	0	360	7	m	pa
19	zn-eng-16	Child and Adolescent Nursing in Pediatrics	4	30	15	0	0	240	6	m	pa
20	zn-eng-17	Healthy Lifestyle and Sociology of Health and Diseases	4	15	15	0	0	0	3	m	p
21	zn-eng-14	Psychology in Nursing and Health Care	4	15	30	0	0	0	3	m	p

22	zn-eng-10	Diagnostically-Therapeutic Program	4	30	30	0	0	315	5	m	pa
23	zn-eng-izb-04	Elective Course 4	4	30	30	0	0	0	5	e	
23a	zn-eng-izb-04-a	Pharmacology and Drug Dosing	4	30	30	0	0	0	5	e	p
23b	zn-eng-izb-04-b	Human Resources Management in Health Care	4	30	30	0	0	0	5	e	pa
23v	zn-eng-izb-04-g	Allergology	4	30	30	0	0	0	5	e	p
23g	zn-eng-izb-04-đ	Rare Diseases	4	30	30	0	0	0	5	e	p
Total number of classes and ECTS per year:				**360**	**330**	**0**		**1.095**	**60**		
THE THIRD YEAR											
24	zn-eng-19	Basics of Surgery with Orthopedics	5	30	15	0	0	0	10	m	pa
25	zn-eng-24	Emergency Medicine and Nursing in Special Conditions	5	30	30	0	0	240	8	m	pa
26	zn-eng-20	Basics of Psychiatry and Neurophysiology of Pain with Psychiatric Patient Nursing	5	30	45	0	0	120	6	m	pa
27	zn-eng-21	Patient Care at Home and Patronage Nursing	5	30	30	0	0	150	8	m	pa
28	zn-eng-izb-05	Elective Course 5	5	30	30	0	0	0	5	e	
28a	zn-eng-izb-05-a	Medical Rehabilitation	5	30	30	0	0	150	5	e	pa
28b	zn-eng-izb-05-b	Mental Hygiene	5	30	30	0	0	0	5	e	pa
28v	zn-eng-izb-05-v	Basics of Oncology with Selected Sections from Radiotherapy and Nursing of Oncological Patients	5	30	30	0	0	240	5	e	pa
28g	zn-eng-izb-05-g	Business English	5	30	30	0	0	0	5	e	ag
28d	zn-eng-izb-05-d	Business German	5	30	30	0	0	0	5	e	ag
29	zn-eng-23	Surgical Patient Nursing	6	60	60	0	0	330	8	m	pa
30	zn-eng-22	Health Care and Social-Security Legislation	6	30	30	0	0	0	5	m	ag
31	zn-eng-25	Quality Control	6	30	30	0	0	0	5	m	p
32	zn-eng-izb-06	Elective Course 6	6	30	30	0	0	0	5	e	
32a	zn-eng-izb-06-a	Intensive Care Unit Nursing	6	30	30	0	0	120	5	e	pa
32b	zn-eng-izb-06-b	Sports Medicine	6	30	30	0	0	0	5	e	pa
32v	zn-eng-izb-06-v	Basics of Integrative Medicine	6	30	30	0	0	0	5	e	p
32g	zn-eng-izb-06-g	Research Methodology	6	30	30	0	0	0	5	e	p
Total number of classes and ECTS per year:				**300**	**300**	**300**		**840**	**60**		

Total number of classes and ECTS per all three years of studies:	**2.235**	**2.745**	**180**		

COURSE CONTENT

(in alphabetical order as listed below)

Anatomy and Physiology
Allergology
Basics of Biochemistry
Basics of Gynecology and Obstetrics and Nursing in Gynecology and Obstetrics
Basics of Information and Communication Technologies
Basics of Integrative Medicine
Basics of Internal Medicine
Basics of Nursing
Basics of Oncology with Selected Sections from Radiotherapy and Nursing of Oncological Patients
Basics of Pediatrics
Basics of Psychiatry and Neurophysiology of Pain with Psychiatric Patient Nursing
Basics of Surgery with Orthopedics
Biological Materials and Laboratory Techniques
Business Communication Skills
Business English
Business German
Child and Adolescent Nursing in Pediatrics
Diagnostically-Therapeutic Program
Dietary Issues and Nutrition of Inpatients
Emergency Medicine and Nursing in Special Conditions
Ethics in Health Care
First Aid
Geriatrics with Nursing in Geriatrics
Health Care and Social-Security Legislation
Health Care Education Methodology and Health Promotion
Healthy Lifestyle and Sociology of Health and Diseases
Human Resources Management in Health Care
Hygiene with the Basics of Microbiology and Parasitology
Intensive Care Unit Nursing
Internal Medicine Patient Nurisng
Marketing of Health Care Institutions
Medical and Pharmaceutical Waste
Medical Genetics and Molecular Biology
Medical Rehabilitation
Mental Hygiene
Nutritionism
Organization of Health Care Systems
Pathophysiology
Patient Care at Home and Patronage Nursing
Pharmacology and Drug Dosing
Psychology in Nursing and Health Care
Public Health
Quality Control
Rare Diseases
Research Methodology
Specialized English for Medicine 1
Specialized English for Medicine 2
Specialized German for Medicine 1
Specialized German for Medicine 2
Sports Medicine
Surgical Patient Nursing

ALLERGOLOGY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Allergology**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, fourth semester
ECTS:	5
Requirement:	no

Course objective:
The objective of the course is to familiarize students with and their understanding of the basic principles of allergology, their capability to use specialist literature relating to this field and to state their opinion in the field of allergology.

Course outcome:
The outcome of the course is the acquisition of fundamental knowledge in allergology, familiarization with the basics of diagnostics in allergology and capability of students of taking measures in the prevention of allergic reactions or their elimination. The outcome of the course is also familiarization of students with basic pathological cases in the field of allergology and their capability to use specialist literature relating to this field.

Course content:
Lectures
Objects, definition and tasks of allergology; respiratory allergy (rhinitis, rhinoconjuctivitis, asthma); drug allergy; poison allergy (wasps, bees); allergic contact dermatitis; food allergy; latex allergy; hives (urticaria); plant allergy; pollen allergy; anaphylaxis; application of allergy elimination techniques; skin testing for allergy; provocation test; desensitization; allergen specific immunotherapy.
Exercises
Types of allergies – case studies; applications of allergy elimination techniques – case studies; analysis of most frequent allergic reactions in Serbia; first aid measures, nursing in case of allergic reactions; searching e-literature and presentation of certain less known allergic reactions; renowned health-care and scientific institutions in Serbia in the field of allergology.

Literature:
Literature in English:
1. Wesley Burks A., Holgate S. T., O'Hehir R. E., Broide D. H., Bacharier L. B.: Middleton's allergy: principles and practice, Elsevier, Amserdam, 2020.
Literature in Serbian:
2. Ljajević J., Ljajević M., Dimčić Radovanović Z.: Alergologija i klinička imunologija u Srbiji, Evropski centar za mir i razvoj, Beograd, 2005.
3. Ramić Z., Pravica V., Popadić D.: Priručnik za nastavu iz imunologije, Medicinski fakultet, Beograd, 2020.
4. Dadarno P. Dž., Vitni K.: Alergije, Sezam book, Beograd, 2020.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam commitments	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	30		
Colloquiums	30		

ANATOMY AND PHYSIOLOGY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Anatomy and Physiology**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, first semester
ECTS:	7
Requirement:	segment Anatomy is a condition for segment Physiology

Course objective:

Acquisition of knowledge on organ and human body system morphology; familiarity with and understanding normal anatomical and histological structures and notions; acquisition of knowledge in area of cell, tissue, organ system and human organism physiology aimed at understanding the changed, pathological functioning and treatment possibilities; knowledge of and understanding the role of organ control mechanisms, as well as understanding connection between regulatory systems in human organism; provision of theoretical basis required for learning other courses.

Course outcome:

Capability of defining, describing, integrating and reproducing notions relating to normal anatomical and histological structures; upon the completion of the course and passing the exam students will have a command of the corresponding part of medical nomenclature, be able to explain functioning of individual organs and organ systems, will be familiar with and will understand integrated functions of individual organs and the role of organism control mechanisms and they will know and understand the connection of the regulatory system of human organism enabling its adaptation to changes in internal and external environment under everyday conditions.

Course content:

Lectures

Anatomy: Basic anatomical terminology; body areas and parts; upper extremities; bones, joints, muscles, blood vessels and nerves; lower extremities; bones, ankles, muscles, blood vessels and nerves; rib cage; walls, division and content of the thoracic cavity; lungs and pulmonary pleurae; heart; mediastinum organs; abdomen; walls, division and content of abdominal cavity; peritoneum, peritoneal cavity (liver, stomach, spleen, pancreas, small intestine and large intestine); retroperitoneal space (kidney, adrenal gland, aorta, inferior vena cava, celiac plexus); pelvis; wall and content; urinary bladder, rectum, male and female reproductive system, pelvic diaphragm; head and neck; head and facial bones; head and neck muscles; head and neck large blood vessels and nerves; central nervous system.

Physiology: Human physiology study; transport through cell membrane; intercellular communication; explicitation physiology; membrane potential of inactivity; action potential; nervous impulse transmission; skeletal muscle physiology; neuro muscular sinapse; morphophysiological characteristics of skeletal muscles; smooth muscle physiology; characteristics of smooth muscle tissue structure, types, innervation, electrical activity of smooth muscles, specific features of contraction; central nervous system organization, nerve cell; hematoencephalic barrier, cerebrospinal fluid, composition and function; spinal cord; medulla oblongata; midbrain; functional characteristics; reticulo-cortical relations, decerebration rigidity and skeletal muscle tone; cerebellum, structure and function; diencephalon, hypothalamus, vegetative nervous system; basal ganglia; cerebral cortex; senses; definition, importance and general principles of sensory systems; sense of hearing and balance; sense of taste and smell; eyesight; pain perception; introductory notes in pathophysiology.

Exercises

Demonstration of all teaching units on anatomical dummies. Use of atlas; video presentations. Membrane potentials and synaptic transmission. Patellar reflex and pupillary reflex. Impact of different factors on muscular contraction. Haemoglobin, erythrocyte and leukocyte concentration in human blood. Plasm buffer solution capacity. Coagulation. Discussion and analysis of selected physiological systems.

Literature:

Literature in English:

1. Scanlon V., Sanders T.: Essentials of Anatomy and Physiology, Kindle Edition, London, 2018.
2. Netter F. H., Machado C. A. G.: Atlas of Human Anatomy & CD, ILS, Mala velika knjiga, Novi Sad, 2005.
3. Drake L. R., Wayne Vogl A., Mitchell A. W. M., et al.: Gray's Anatomy for Students, textbook, Elsevier, New York, 2014.
4. Arroyo J. P.: Back to Basics in Physiology, textbook, Academic Press, London, 2013.

Literature in Serbian:

5. Stojšić-Džunja Lj.: Anatomija za studente zdravstvene nege, udžbenik, Medicinski fakultet, Novi Sad, 2017.
6. Veličković D.: Fiziologija za studente farmacije, udžbenik, Medicinski fakultet, Niš, 2013.
7. Despopoulos A., Silbernagl S.: Fiziološki atlas u boji za studente medicine, Medicinski fakultet, Niš, 2007.
8. Mačvanin Đorđe: Anatomija, udžbenik, Fakultet za menadžment u sportu, Alfa univerzitet, Beograd, Matica srpska, Novi Sad, 2005.
9. Milisavljević M. i sar.: Klinička anatomija, udžbenik, Nauka, Beograd, 2004.
10. Guyton A.C., Hall J. E.: Medicinska fiziologija, Savremena administracija, Beograd, 2006.
11. Mujović i sar.: Medicinska fiziologija, udžbenik, Medicinski fakultet, Kosovska Mitrovica (Priština), 2008.

Number of classes:				
Lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
45	15	0	0	0
Methods of teaching: lectures and practical exercises with anatomical and hystological devices, use of atlas, video projections, computer animations and simulations of physiological processes.				
Grading (maximum 100 points)				
Pre-Exam commitments		**Points**	**Final Exam**	**Points**
Lecture attendance		3	Exam	20 (Anatomy) 20 (Physiology)
Activity		7		
Projects/Seminars		0		
Exercises/professional practice		10 (Anatomy) 10 (Physiology)		
Colloquiums		15 (Anatomy) 15 (Physiology)		

BASICS OF BIOCHEMISTRY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Biochemistry**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
Student will acquire basic knowledge in biochemistry and understand the impact of biochemistry on other sciences, understand interrelationship between molecule structure and biological function, acquire knowledge on structure and function of cell membranes, understand enzyme action mechanism, acquire knowledge in basic metabolic pathways, acquire knowledge in intercellular signaling, understand reactions of biotransformations of exogenous and endogenous substances and acquire knowledge on nucleic acids and protein biosynthesis.

Course outcome:
Upon the successful completion of the course students are expected to be able to describe and analyze the course of principal catabolic, anabolic and common metabolic pathways, apply knowledge on enzyme kinetics and intercellular signaling in interpreting regulation of metabolic pathways in human organism, explain biochemical basis of protein synthesis, regulation and posttranslational modifications of proteins, as well as to successfully apply the acquired knowledge when attending classes and acquiring knowledge in medical biochemistry.

Course content:
Lectures
Introduction; structure and mechanism of enzyme and coenzyme action, enzyme kinetics and inhibition; chemical composition of biological membranes and transport through membranes; basic principles of bioenergetics; carbohydrate catabolism; glycolysis; glycogenolysis; phosphogluconate pathway, catabolism of other hexoses; lipid catabolism: fatty acid oxidation, triglyceride, phospholipid, sphingolipid, cholesterol; nitrogen compound catabolic process, amino acids, urea, protein, nucleotide cycle; common metabolic pathways; citric acid cycle, respiratory chain and oxidative prohporylation; carbohydrate anabolism: gluconeogenesis, glycogenesis; lipid anabolism; nitrogen compound anabolism; intercellular signaling: by G-protein-linked receptors, enzyme-linked receptors, ion channel receptors and nicotinic acetylcholine receptors; biotransformations: cytochrome P450, FM-monooxygenase systems; glucuronic acid conjugation; biotransformation of some exogeneous and endogenous substances; biosynthesis of proteins and nucleic acids, replication, transcription, translation and posttranslational modifications of proteins in human organism.
Exercises
Repetition of the acquired knowledge on biomolecules. Structure and function of fibrillar (keratin and collage) and globular (hemoglobin and myoglobin) proteins. Solving problems relating to enzyme reaction kinetics and enzyme inhibition. Examples of disorders of some transport systems through cell membranes. Presentation of animations of principal metabolic pathways. Solving problems relating to certain metabolic pathway, linking theoretical knowledge in metabolism with practical examples. Familiarization with work of medical-biochemical laboratory.

Literature:
Literature in English:
1. Rodwell V., Bender D., Botham K., Kennelly P., Anthony P. W.: Harper's Illustrated Biochemistry, textbook, McGraw-Hill Education, New York, 2018.
2. Nelson D. L., Cox M. M.: Lehninger Principles of Biochemistry, Worth Publishers, New York, 2000.
Literature in Serbian:
3. Spasić S., Jelić-Ivanović Z., Spasojević-Kalimanovska V.: Opšta biohemija, udžbenik, Farmaceutski fakultet, Beograd, 2003.
4. Topić A., Stanojević-Bogavac N., Kotur-Stevuljević J.: Laboratorijske vežbe iz opšte biohemije, Farmaceutski fakultet, Beograd, 2009.
5. Stojanović S.: Zbirka zadataka iz hemije, Omega MS Pharmacy, Novi Sad, 2017.
6. Kovačević D.: Biohemija, udžbenik, Savremena administracija, Beograd, 2003.
7. Petrović J., Velimirović S.: Biohemija, udžbenik, Novi Sad, 2002.
8. Mihajlović M.: Biohemija, udžbenik, Naučna knjiga, Beograd, 2000.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)			
Pre-Exam obligation	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

BASICS OF GYNECOLOGY AND OBSTETRICS AND NURSING IN GYNECOLOGY AND OBSTETRICS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Gynecology and Obstetrics and Nursing in Gynecology and Obstetrics**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, third semester
ECTS:	5
Requirement:	Basics of Nursing

Course objective:
Training students to use the acquired knowledge in education of population aimed at improvement and preservation of reproductive health, health check-ups, participation in diagnostic processes and therapy, planning and implementation of nursing of women.

Course outcome:
Upon the completion of the course, students will be able to recognize pathology of early and late pregnancy, to nurse prematurely born babies, apply the procedure of transfer of prematurely born babies, take part in diagnostic and therapeutic interventions.

Course content:
Lectures
Most frequent and most important conditions in women, their diagnostics, prevention and curing; therapeutic diagnosis in gynecology; physical, psychical and social aspects of pregnancy, education and health care of pregnant women, postpartum women and breastfeeding women; therapeutic diagnosis in obstetrics; physical, psychical and social aspects of marital sterility and menopause, importance of education and care; specific features of nursing in gynecology and obstetrics and their subspecialties; anatomy and physiology of the reproductive system, inflammatory changes of reproductive system, benign and malignant changes of the reproductive system, urogynecology, sterility, family planning, pregnancy physiology, pathology of early and late pregnancy, normal child birth, child birth pathology, fetal growth monitoring methods, fetal lactation physiology.
Exercises
Pregnancy, birth-giving and postnatal period as normal condition. Assessment of risk factors causing pathological conditions in antenatal, intrapartum and postpartum period. Assessment of emergencies in obstetrics. Nursing during and after surgical delivery. Newborn baby nursing with an emphasis on good parenthood. Evaluation of body systems of a newborn baby. Newborn primitive reflexes evaluation. Education of parents. Nursing of prematurely born babies and their transfer.

Literature:
Literature in English:

1. The Global Strategy for Women's, Children's and Adolescents' Health 2016-2030, WHO, 2015.
2. Hoffman B., Schorge J., Bradshaw K., Halvorson L., Schaffer J., Corton M.: Williams Gynecology, textbook, Mc-Graw-Hill Education, 2016.

Literature in Serbian:
3. Đurđević S., Kopitović V., Kapamacija A.: Ginekologija, udžbenik, Medicinski fakultet, Novi Sad, 2015.
4. Plećaš D., Stanimirović B., Stanković A., Vasiljević M.: Ginekologija i akušerstvo, Cibid, Beograd, 2006.
5. Prelević G.: Klinička reproduktivna endokrinologija, Agencija za marketing zepelin reklame DON, Beograd, 1996.
6. Dinulović D.: Opstetricija, Tom 1, Službeni list SRJ, Beograd, 1996.
7. Živanović V.: Zdravstvena nega u ginekologiji i akušerstvu, autorsko izdanje, Beograd, 2012.
8. Dinulović D.: Savremena ginekologija, Agencija za marketing DON VAS, 2006.
9. Živanović Ž.: Uvod u porodiljstvo, Elit Medika, Beograd, 2004.
10. Šćekić M.: Prenatalna dijagnostika naslednih obolenja primenom savremenih metoda medicinske genetike, Skver, Kragujevac, 2005.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	60	180	0	0

Methods of teaching:
lectures using various video materials, dummy exercises, and clinical practice.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

BASICS OF INFORMATION AND COMMUNICATION TECHNOLOGIES

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Information and Communication Technologies**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:

Course objective is to enable students to acquire basic knowledge in the area of application of information-communication technologies in health care institutions, familiarizing with text processing software tools and with tabular calculations computer programs.

Course outcome:

Upon passing the exam students will be able to apply the acquired knowledge on computer hardware, peripheral units, software tools, multimedia and the internet in real-life situations in health care institutions, or to use the acquired knowledge to improve the current work in health care institutions. In addition to that, application of calculation or text processing program is important for everyday work of health care professionals.

Course content:

Lectures

Organization of information technology service in health care institution; types of information systems; information systems within health care system; acquisition and acceptance of new information systems in health care, need for continuous updating; work of health care worker within IT system; professional equipment; basics of system analysis; system functioning testing; standards of information technologies system in health care; patient recording; importance of permanent and timely entry of data into system; connection of the system with other national systems, unique system of patient tracking; trends of connecting health care institutions system with pharmaceutical systems; patient data protection; the Internet, internet address, internet access, internet protocols, HTML, World Wide Web, internet services; Windows; specific program used in pharmacy practice; basic program languages used by health care professionals (Word, Excell, Power Point); security systems in health care institutions, panic keys.

Exercises

Types of information systems. Work of health care worker within IT system. Need for continuous updating. Basics of telecommunications and forms of telecommunication systems. Patient recording. Importance of permanent and timely entry of data into system. Work in patient recording program. Use of internet. Basic program languages in the work of health care professional (Word, Excel, Power Point), work in programs. Data processing, surveys. Graphic presentation and tabulating. Types of errors at data processing. Use of security system in health care institution.

Literature:

Literature in English:

1. Biheller B. R., Evans J., Pinard T. K., Romer M. R.: Microsoft Office 2007: Introductory Course, textbook, Course Technology, Boston, 2007.

Literature in Serbian:

2. Marčićević Ž., Marošan Z.: Primena informacionih tehnologija, udžbenik, Visoka poslovna škola strukovnih studija, Novi Sad, 2010.
3. Marošan Z., Vesin B.: Primena informacionih tehnologija, praktikum, Visoka poslovna škola strukovnih studija, Novi Sad, 2009.
4. Gerlič I.: Savremene informacione tehnologije u obrazovanju, udžbenik, Nacionalna izdavačka kuća Slovenija, Ljubljana, 2000.
5. Softver HELIANT za rad u zdravstvenoj ustanovi, demo verzija.
6. Bunzel T.: Microsoft Office 2010 Kao od šale, CET, Beograd, 2010.
7. Ringstrom D.: Otkrijte skrivena blaga Mikrosoft Eksela, Kompjuter Biblioteka, Beograd, 2022.
8. Arsić S.: Želim da naučim Eksel, Beosing, Beograd, 2005.
9. Tasić M., Ćirić M.: Osnovi informatike, udžbenik, Prirodno-matematički fakultet, Niš, 2002.
10. Milošević Z., Bogdanović D.: Statistika i informatika u oblasti medicinskih istraživanja, udžbenik, Medicinski fakultet, Niš, 2012.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:

lectures, practical classes, work with software, exercises.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	30		
Colloquiums	30		

BASICS OF INTEGRATIVE MEDICINE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Integrative Medicine**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, sixth semester
ECTS:	5
Requirement:	no

Course objective:
The objective of the course is to provide students with basic information on different ideas and approaches to therapy, enable acquisition of knowledge on most important techniques included in the notion of integrative medicine, provide basic information on certain techniques of integrative medicine and provide preconditions for understanding the integrative approach to therapy. The objective of the course is that students understand integrative medicine as a medicine parallel, complementary to the conventional medicine that jointly result in an improved condition of the patient.

Course outcome:
Having passed the exam, the student will be capable of logical judgment on different approaches to therapy and treatment, approaches to therapy and treatment dealt with within integrative medicine, basic characteristics of certain methods; current application of different forms of integrative medicine in Serbia and global trends. In addition to that, students will be trained to interpret current laws of the Republic of Serbia relating to integrative medicine branches.

Course content:
Lectures
Presentation of different concepts in defining the notions of conventional and integrative therapy, holistic and integrative approach to therapy; notions and technique presently classified as nonconventional therapy techniques; currently used therapeutic tools; basics of integrative medicine methods: acupuncture (acupressure, magnetotherapy, laser therapy), quantum medicine (Bi-Digital O-Ring Test, BRT, MRT), herbal and vitamin supplements, homeopathy, nonconventional approach to nutrition, essential oils, manipulative therapies (osteopathy, chiropractic), applied kinesiology, naturopathy, relaxation techniques (yoga, meditations, tai-chi, autogenic training, hypnosis etc.), massages (shiatsy, reflexotherapy), anthroposophic medicine, aromatherapy, colour therapy, smell therapy, sound therapy, crystal therapy, mud therapy, water therapy, qigong, reiki, environmental medicine; providing information on current and new forms of complementary therapies (information diagnostic and therapy); traditional medicine vs. integrative therapy; main assumptions of traditional medicine (acupuncture, tui na, herbal), campo, Indian (ayurveda), fundamentals of other traditional medicine; traditional systems of therapy in the Balkan region; safety at selection or use of complementary medicine methods.
Exercisess
Visits to integrative medicine centres; familiarization with actual cases; discussion; case studies; internet presentations; field visits (to centres of certain integrative medicine branches).

Literature:
Literature in English:

1. Omura Yoshiaki: Practice of the Bi-Digital O-Ring Test, Ido No Nippon, Tokyo 1986.
2. Robson Terry: An introduction to Complementary Medicine, Allen &Unwin, Sydney, 2003.
3. Micozzi S. Marc: Fundamentals of Complementary and Alternative Medicine, Saunders, Philadelphia, 2010.
4. Kotsirilos Vicki, Vitetta Luis, Sali Avni: A Guide to Evidence-based Integrative and Complementary Medicine, Churchill Livingstone, Edinburg, 2011.
5. Hecker Hans-Ulrich, Steveling Angelika, Peuker Elmar, Kastner Joerg: Color Atlas of Acupuncture: Body Points - Ear Points - Trigger Points (Complementary Medicine), Thieme, Amsterdam, 2008.
6. Sutton Amy L: Complementary and Alternative Medicine Sourcebook, Omnigraphics, Detroit, 2010.
7. Zhanwen Liu, Liang Liu: Essentials of Chinese Medicine, Springer, London, New York, 2009.
8. Kligler Benjamin, Lee Roberta: Integrative Medicine principles for practice, Program in Integrative Medicine, University of Arizona. McGraw-Hill Companies, New York, Chicago, London, Madrid, Milan, Sydney, Toronto, 2004.

Literature in Serbian:
9. Grupa autora: Tajne alternativne medicine: Medicinska knjiga, Beograd, 2016.
10. Škokljev A.: Akupunkturologija, Naučna knjiga, Beograd, 2009.
11. Jovanović-Ignjatić Zlata: Kvantno hologramska medicina kroz prizmu akupunkturnih i mikrotalasno rezonantnih (samo) regulatornih mehanizama, Quanttes, Beograd, 2010.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching: interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

BASICS OF INTERNAL MEDICINE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Internal Medicine**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, third semester
ECTS:	5
Requirement:	Basics of Nursing

Course objective:
Adoption of current theoretical and practical specialist knowledge in internal medicine, nursing of internal-medicine patients and training in application of acquired knowledge in health care professional work.

Course outcome:
Upon the completion of the course students are trained to recognize in individual and team work cardiovascular, pulmonary, nephrology, endocrinology, gastroenterology, hematology and oncology conditions.

Course content:
Lectures
Cardiology; specific features of nursing in heart rhythm, pacemaker implantation and electrophysiology ward; diagnostics, therapy and prevention of artery hypertension; specific features of nursing in cardiology wards; prevention, diagnostics and treatment coronary disease risk factors; diagnostics and treatment of acute coronary syndrome; most frequent and most important pulmonary diseases, diagnostics, prevention and treatment; specific features of nursing in pulmonary wards; most frequent and most important internal oncology diseases, diagnostics, prevention and treatment; specific features of administration of cytostatic therapy and chemotherapy in internal patients; most frequent and most important hematologic diseases, diagnostics, prevention and treatment; specific features of nursing in hematology wards; nursing and care of patients with hemorrhagic syndrome; nursing and care of immunocompromised patients; most frequent and most important gastrointestinal and biliopancreatic diseases, diagnostics, prevention and treatment; most frequent and most important liver diseases; endocrinology; most frequent and most important endocrinology diseases, diagnostics, prevention and treatment; specific features of nursing in endocrinology wards; insulin therapy regimes; diabetic foot nursing; most frequent and most important nephrology diseases, diagnostics, prevention and treatment; most frequent and most important immunology diseases, diagnostics, prevention and treatment; specific features of nursing in nephrology and immunology wards; specific features of nursing in dialysis wards; conducting peritoneal dialysis.
Exercises
Etiology and pathogenesis of cardiovascular diseases. Specific features of nursing in cardiology wards. Prevention, diagnostics and treatment of coronary disease risk factors. Diagnostics and treatment of acute coronary syndrome. Etiology and pathogenesis of pulmonary diseases. Function and general symptomatology of respiratory system diseases. Diagnostics of respiratory system diseases. Anamnesis, physical examination, abdomen inspection, additional examinations of digestive organs. Etiology and pathogenesis of digestive system organs diseases. Functional and general symptoms of digestive system organs. Functional and general symptoms of liver, gallbladder and biliary tract and pancreas diseases. Specific features of nursing in gastrointestinal wards. Preparation of patient for endoscopy diagnostic procedures. Examination and clinical testing of renal disease patient. Specific features of nursing in nephrology and immunology wards. Specific features of nursing in dialysis wards. Conducting hemodialysis and peritoneal dialysis. Propaedeutics of blood and blood forming organs. Specific features of nursing in hematology wards. Nursing and care of patients with hemorrhagic syndrome. Nursing and care of immunocompromised patients. Most frequent and most important endocrinology diseases, diagnostics, prevention and treatment. Specific features of nursing in endocrinology wards. Insulin therapy regimes. Specific features of nursing of patients with locomotor system diseases.

Literature:
Literature in English:

1. Farr C. B.: Internal Medicine for Nurses: Outlines of Internal Medicine for the Use of Nurses, Scholar's Choice, London, 2015.
2. Kasper D., Fauci A., Hauser S., Longo D.: Harrison's Principles of Internal Medicine, textbook, McGraw-Hill Professional, New York, 2015.

Literature in Serbian:

3. Kopitović I.: Interna medicina za studente zdravstvene nege, udžbenik, Medicinski fakultet, Novi Sad, 2015.
4. Manojlović D. i dr.: Interna medicina I, II udžbenik, Zavod za udžbenike i nastavna sredstva, Beograd, 2003.
5. Antić S., Ilić S., Interna medicina, udžbenik, Medicinski fakultet, Niš, 2009.
6. Đurica S.: Interna medicina, udžbenik, Viša medicinska škola, Beograd, 2000.
7. Manojlović S.: Hitna stanja u internoj medicini, udžbenik, Zavod za udžbenike, Beograd, 2011.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with

				student, projects…)
45	15	0	0	0
Methods of teaching: lectures using various video materials, dummy exercises, and exercises.				
Grading (maximum 100 points)				
Pre-Exam obligations		**Points**	**Final Exam**	**Points**
Lecture attendance		3	Exam	30
Activity		7		
Projects/Seminars		0		
Exercises/professional practice		30		
Colloquiums		30		

BASICS OF NURSING

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Nursing**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, first semester
ECTS:	8
Requirement:	no

Course objective:
Adoption of basic notions in nursing and basic theoretical and practical (resourcefulness) specialist knowledge in nursing, and training in application of the acquired knowledge in professional and research work. Self-education aimed at own protection, protection of patients and other team members, development of critical thinking, independence in nursing and team work abilities.

Course outcome:
Adoption of a holistic approach in nursing; skills, development of professional awareness, responsibility, humanity, sense of deontology, aesthetics and communication with patients and professional team; student independence in nursing, mastered nurse intervention and interdependent nurse intervention in the field of diagnostics and therapy.

Course content:
Lectures
Theoretical consideration of basic and general notions in medicine; development of nursing; nursing and society; requirements for quality nursing in hospital and out-of-hospital circumstances; nurse interventions at patient hospitalization; nursing process; data gathering and assessment of needs of patients for nursing; general (universal) problems in nursing; nursing of specific groups; nursing documentation; models (methods) of organization of provision of nursing; progressive nursing and patient categorization; improvement of nursing through research work of nurses.
Exercises
Analysis of basic values of nursing and necessary requirements for quality nursing in hospital and out-of-hospital conditions. Basics of good practice and infection control. Nurse interventions at patient hospitalization. Determining needs in nursing. Application of aids to data collecting. Recording vital signs and other health indicators as a form of observing in nursing. Nurse diagnosis and collaboration issue in nursing process. Nursing planning. Nursing plan realization. Practicing certain nurse interventions. Evaluation in nursing process and nurse documentation keeping.

Literature:
Literature in English:

1. Springhouse: Nursing procedures, prevod, Data Status, Beograd, 2010.
2. Gulanick M., Myers J. L.: Nursing Care Plans-Nursing Diagnoses and Intervention, Elsevier, Mosby, New York, 2007.
3. Potter P. A., Perry A. G., Stockert P. A., Hall A.: Fundamentals of Nursing, textbook, Elsevier, New York, 2020.
4. Lynn P. B.: Taylor's Clinical Nursing Skills, A Nursing Process Approach, textbook, LWW, Liverpool, 2018.

Literature in Serbian:

5. Rajak S., Imbronjev V.: Osnovi zdravstvene nege, udžbenik, Omega MS Pharmacy, Novi Sad, 2018.
6. Kekuš D.: Zdravstvena nega u primarnoj zdravstvenoj zaštiti, Visoka zdravstvena škola, Beograd, 2015.
7. Rudić R., Kocev N., Munćan B.: Proces zdravstvne nege, Praktikum za studente-vodič za praksu, Knjiga-komerc, Beograd, 2005.
8. Tijanić M., Đuranović D., Rudić R., Milović Lj.: Zdravstvena nega i savremeno sestrinstvo, udžbenik, Naučna KMD, Beograd, 2010.
9. Munćan B.: Zdravstvena nega, udžbenik, Beograd, 2014.
10. Babić L.: Zdravstvena nega u radiologiji, udžbenik, Licej, Beograd, 2011.
11. Stojković B.: Zdravstvena nega u radiologiji, udžbenik, Naučna knjiga, Beograd, 2006.
12. Maksimović J.: Uvod u medicinu sa teorijom medicine, udžbenik, Medicinski fakultet, Novi Sad, 2001.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	15	300	0	0

Methods of teaching:
lectures using various video materials, dummy exercises, simulation, exercises, problem-based case study analysis, discussion, workshop.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		

Exercises/professional practice	40		
Colloquiums	20		

BASICS OF ONCOLOGY WITH SELECTED SECTIONS FROM RADIOTHERAPY AND NURSING OF ONCOLOGICAL PATIENTS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Oncology with Selected Sections from Radiotherapy and Nursing of Oncological Patients**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, fifth semester
ECTS:	5
Requirement:	Basics of Nursing

Course objective:
Course objective is familiarization of students with origin and occurrence of malignant cell, manner of malignant tumor spreading, their epidemiology and etiology, possibilities of early detection of malignant tumor and premalignant lesions, diagnostics and histological confirmation of malignant tumors. It is necessary to familiarize students with team work in planning oncology treatement, types of treatment and, which is very important, with recognition of complications appearing in the course of treatment of patients with malignant tumors.

Course outcome:
The purpose of the course is to familiarize students with the difficulties oncology patients have prior to and in the course of diagnostic procedure, in the course of treatment and after it, to understand the basic prevention of malignant tumors and recognition of the procedure of early discovery of malignant tumors. In addition to that, upon the completion of the course and after passing the exam, students should know the types and forms of oncology treatment in order to understand dilemmas and problems of the patients, which is all aimed at improvement of the quality of life of patients. It is important for them to recognize at the moment of difficulties those conditions in which it is possible to intervene professionally. Students also study basic principles of pain therapy, psycho-oncological aspect of patients and their families, and they are taught to understand the early and late rehabilitation of oncology patients. Having completed the course, students are familiar with new scientific-technical achievement in the field of diagnostics and treatment of oncology patients, and the application of information systems in oncology.

Course content:
Lectures
Origin and biology of malignant cell; carcinogenesis; genetic predisposition; epidemiology and etiology of malignant tumors; early detection of malignant tumor; carcinoma diagnosis and pathology; determining the stage of the condition and principles of treatment; emergency conditions in oncology; complications in oncology treatment; paraneoplastic syndrome and stress in oncology, oncology rehabilitation; informatics in oncology.
Exercises
Case analysis based on real-life situations from hospital practice.

Literature:
Literature in English:
1. Watson W., Lucas C., Hoy A., Wells J.: Oxford handbook of Palliative Care, Oxford University Press, Oxford, 2005.
2. DeVita T. V.: Cancer Principles and Practice of Oncology, textbook, Lippincott, New Jersey, 2010.
3. Itano J. K., Brant J., Conde F., Saria M.: Core Curriculum for Oncology Nursing, textbook, Saunders, New York, 2015.
Literature in Serbian:
4. Kostić-Milosavljević M.: Onkologija, Visoka zdravstvena škola strukovnih studija, Beograd, 2015.
5. Bošković S.: Zdravstvena nega u onkologiji, Visoka zdravstvena škola strukovnih studija, Beograd, 2012.
6. Jovanović D.: Osnovi onkologije i palijativna nega, udžbenik, Medicinski fakultet, Novi Sad, 2008.
7. Vrdoljak E. i sar.: Klinička onkologija, Medicinska naklada, Zagreb, 2013.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
30	30	240	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	Points	Final Exam	Points
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/ professional practic	40		
Colloquiums	20		

BASICS OF PEDIATRICS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Pediatrics**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, third semester
ECTS:	5
Requirement:	Basics of Nursing

Course objective:
Familiarizing students with medically healthy and sick children, pediatric treatment process and the role of health care professional dealing with nursing in pediatrics. Study analysis and planning needs in pediatric nursing of patients for individuals and groups. Understanding the importance of inclusion of parents in nursing of children. Improvement of possibilities of successful communication of treated children, parents and medical team.

Course outcome:
Upon completion of the course and attending the exercises, i.e. passing the exam, the student should be capable of applying the acquired knowledge in pediatric expertise and nursing interventions in pediatrics, as well as communication skills in the field of pediatrics with young patients and their families. The student should be able to practically apply the acquired knowledge and skills within pediatric health care.

Course content:
Lectures
Inclusion of parents in nursing of children and the young. Evidence based on nursing in pediatrics. Application of nursing process on individual basic activities – conceptual model by V. Henderson. Care of all age children. Nursing of prematurely born children. Nursing of sick children. Nursing of children with special needs. Nursing of children suffering from pain. Newborn nutrition. Neonatology. Genetics. Growth and development of children. Nutrition of children: nephrology, endocrinology, cardiology, pulmonology, dermatology, emergency medicine, psychiatry, neurology, social pediatrics, poisoning, injuries. Disproportion of physical and psychical maturity. Adolescent medicine.
Exercises
Pediatric nursing and application of theoretic model. Preparation of students for clinical training within seminars. Practical application of pediatric nursing, intervention in laboratory within V. Henderson conceptual model.

Literature:
Literature in English:

1. Ball J. W.: Pediatric Nursing, Pearson education, Prentice Hall, New Jersey, 2008.
2. Kliegman R. M., Jenson H. B., Behrman R. E.: Nelson Textbook of Pediatrics, textbook, Sounders, New York, 2000.
3. Aruchamy L.: Practical Pediatrics Paperback, textbook, Jaypee, New Jersy, 2020.
4. Goldbloom R.: Pediatric Clinical Skills, Saunders, Philadelphia, 2013.
5. Hockenberry M.: Wong' s Essentials of Pediatric Nursing, Elsevier Mosby, St. Louis, 2007.
6. Muscari M. E.: Pediatrics nursing, Lippincott Williams & Wilkins, Philadelphia, 2005.
7. Potts N. L.: Pediatric Nursing, Thomson, New York, 2007.

Literature in Serbian:

8. Jovanović Privrodski J.: Pedijatrija, udžbenik, Medicinski fakultet, Novi Sad, 2012.
9. Mardešić D.: Pedatrija, udžbenik, Školska knjiga, Zagreb, 2013.
10. Marinković Lj.: Zdravstvena nega u pedijatriji, udžbenik, G.A.D., Beograd, 2007.
11. Janković B.: Vodič osnovno i specijalizovano zbrinjavanje novorođenčeta, Institut za zdravstvenu zaštitu majke i deteta Srbije "Dr Vukan Čupić", Beograd, 2011.
12. Rončević N., Vukavić T. i sar.: Pedijatrijska propedevtika, Futura, Petrovaradin, 2005.
13. Berman R., Kligman R., Dženson H., Nelson N.: Udžbenik pedijatrije, Bard-Fin, Beograd, 2009.
14. Felc Z.: Osnove neonatologije, udžbenik, Fakulteta za zdravstvene vede, Maribor, 2008.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	15	0	0	0

Methods of teaching:
lectures using various video materials, dummy exercises, and exercises.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Attendance at lectures	3	Exam	40
Activity	7		
Projects/Seminars	0		

Exercises/professional practice	20		
Colloquiums	30		

BASICS OF PSYCHIATRY AND NEUROPHYSIOLOGY OF PAIN WITH PSYCHIATRIC PATIENT NURSING

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Psychiatry and Neurophysiology of Pain with Psychiatric Patient Nursing**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	third year, fifth semester
ECTS:	6
Requirement:	Basics of Nursing

Course objective:
Familiarization of students with the specifics of psychiatry as a branch of medicine and psychiatric patients. Recognition of specific mental disorders and mastering aspects of their care and treatment. Additionally, the course aims to introduce the students to the concept, importance and neurophysiology of pain, the physiology and classification of pain, as well as its medical definition and division.

Course outcome:
Upon completion of the course, the student should possess knowledge on individual psychiatric disorders and their care, as well as knowledge on the care of individuals suffering from psychiatric disorders. The course outcome includes the students' mastering communication skills with individuals suffering from psychiatric disorders, formulating a working diagnosis and mastering skills in the care of individuals suffering from mental disorders. In addition to that, the course outcome is students acquiring knowledge on the concept, importance, neurophysiology, physiology and classification of pain, as well as the definition and division of pain.

Course content:
Lectures
Diagnostics of mental disorders; dynamic psychiatry; schizophrenia; mood disorders; delusional disorders; anxiety disorders; psychophysical disorders; personality disorders; MOPS; addictive diseases; child psychiatry; forensic psychiatry; pain neurophysiology; specific features of nursing, etiology and clinical features of addictive diseases; specific features of nursing, etiology and clinical features of schizophrenia and related disorders; specific features of nursing, etiology and clinical features of disorders; specific features of nursing, etiology and clinical features of anxiety disorders; specific features of nursing, etiology and clinical features of psychiatric disorders in childhood and adolescence; specific features of nursing, etiology and clinical features of suicidal patients; depression; domestic violence, safe houses; peer violence; marginalized groups, LGBT persons, persons with special needs; drug dependence; the notion of pain; significance of pain; neurophysiology of pain; physiology and pain classification; definitions of pain; pain division (according to duration, location, pathogenesis, etiology and intensity); acute pain; chronic pain (classification, prevalence); somatic pain; visceral pain; referred pain; neuropathic pain (peripheral, central); nociceptive and neuropathic pain; neural plasticity; pain receptors (nociceptors) and pain receptor simulation; nociceptive fibers; pain modulation; opioid peptide receptors; sensitization; pain theories; cancer pain; headache; migraines.
Exercises
Carrying out functional testing and evaluation of functional status of patients, implying contact establishing, observation, interview, evaluation of psychical functions, movement coordination test, gathering additional data on patient and his/her condition. Use of medical documentation. Keeping nurse documentation in psychiatric clinic. Drawing up detailed treatment plan with therapy goals in accordance with conclusions and recommendations given by psychiatric team. Familiarization of patient with therapy plan. Motivating patient to techniques and activities in occupational therapy. Individual approach. Effects of pharmacotherapy or occupational therapy on psychomotor activities. Organization of group activities, sports-recreational activities. Education of patients and their families in structuring everyday and free-time activities. Evaluation of treatment effects. Drug addiction. The the concept of pain; the significance of pain; neurophysiology of pain. Physiology and pain classification. Definitions of pain. Pain division (according to duration, location, pathogenesis, etiology and intensity). Pain theories. Cancer pain. Headache. Migraines.

Literature:
Literature in english:

1. Crouch R., Alers V.: Occupational Therapy in Psychiatry and Mental Health, Wiley-Blackwell, New Jersey, 2005.
2. Sadock B., Sadock V. A., Ruiz P.: Kaplan & Sadock's Concise Textbook of Clinical Psychiatry, textbook, LWW, Liverpool, 2015.
3. Halter M. J.: Varcarolis' Foundations of Psychiatric-Mental Health Nursing: A Clinical Approach, textbook, Saunders, New York, 2017.

Literature in Serbian:
4. Rašković Ivić S.: Psihijatrija, Beograd, Visoka medicinska škola strukovnih studija "Milutin Milanković", 2016.
5. Kekuš D.: Praktikum iz psihijatrije sa negom, autorsko izdanje, Beograd, 2015.
6. Gelder M. Psihijatrija, prevod, Oksford, Data Status, 2012.
7. Marić J.: Klinička psihijatrija, udžbenik, Data status, Beograd, 2004.
8. Lečić Toševski D., Jašović Gašić M. i sar.: Psihijatrija, Medicinski fakultet, Beograd, 2006.
9. Nedić A., Živanović O.: Psihijatrija, udžbenik, Medicnski fakultet, Novi Sad, 2009.
10. Vučić R., Marković P., Savković N.: Klinička radna terapija – praktikum sa terapeutskim medicinskim podsetnikom,

Alternativa, Beograd, 2006.				
Number of classes:				
Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	45	120	0	0
Methods of teaching: lectures using various video materials, exercises, workshop, discussion, e-learning, and clinical practice.				
Grading (maximum 100 points)				
Pre-Exam obligations		**Points**	**Final Exam**	**Points**
Lecture attendance		3	Exam	30
Activity		7		
Projects/Seminars		0		
Exercises/professional practice		40		
Colloquiums		20		

BASICS OF SURGERY WITH ORTHOPEDICS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Basics of Surgery with Orthopedics**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	third year, fifth semester
ECTS:	10
Requirement:	Basics of Nursing

Course objective:
Acquisition of theoretical knowledge and skills in nursing patients in all surgery branches.

Course outcome:
Students are trained to practically apply the acquired knowledge from all surgical disciplines necessary for the acquisition of skills in the care of surgical patients, which includes previous mastering of practical knowledge and acquiring skills necessary for the care of surgical patients.

Course content:
Lectures
Surgical diagnostics and seminology; war surgery doctrine; the organization of care for the injured in peacetime and wartime conditions; asepsis in surgery in war conditions; wounds, specifics of war wounds, surgical infections; surgical terminology and types of surgical interventions; post-operative complications, foreign bodies in surgery; surgical principles in oncology; neck surgery and surgical breast diseases; abdominal surgery; specificities of pediatric surgery, urgent conditions in neonatal surgery; surgery of the chest wall, pleura, and lungs, mediastinum, chest trauma; cardiothoracic and vascular surgery; surgical treatment of burns, basic principles of plastic surgery, soft tissue and skin tumors, general principles and methods in reconstructing skin defects, diseases and injuries of the hand; neurosurgery; urology; orthopedic surgery.
Exercises
Principles, methods, and means of sterilization and disinfection in surgery, asepsis in surgery and in wartime conditions. Physical examination of surgical patients, diagnostic procedures in surgery. Types of immobilization. Initial hospital care for the injured. Surgical wound management. Care of surgical infections. Initial treatment of burn patients. Minor surgical interventions. Operating room during operation. Postoperative care. Specifics of chest surgery, cardiothoracic surgery, oncological surgery, pediatric surgery, plastic and reconstructive surgery, vascular surgery, neurosurgery, urology, abdominal surgery, orthopedic surgery, traumatology of the locomotor system.

Literature:
Literature in English:

1. Pudner R.: Nursing the Surgical Patient, Elsevier, 2005.
2. Norton J., Barie P.S., Bollinger R.R., Chang A.E., Lowry S., Mulvihill S.J., Pass H.I., Thompson R.W.: Surgery: Basic Science and Clinical Evidence, Springer Publishing Company, New York, 2008.
3. Lewis L.S., Dirksen S.R., Heitkemper M.M., Bucher L.: Medical Surgical Nursing: Assessment and Management of Clinical Problems, Toronto, 2011.

Literature in Serbian:

4. Maksimović Ž.: Hirurgija, udžbenik za studente, CIBID, Beograd, 2008.
5. Stević M. i sar.: Hirurgija za studente i lekare, udžbenik, Savremena administracija, 2000.
6. Stoiljković J.: Zdravstvena nega u hirurgiji, Altera Books, Beograd, 2014.
7. Dragović M.: Ambulantna hirurgija, Velarta, Beograd, 2006.
8. Glišić R.: Zdravstvena nega u hirurgiji, Cicero, Beograd, 2011.
9. Petković S., Bukurov S.: Hirurgija: udžbenik za medicinare i lekare, Medicinska knjiga, Zagreb, 1982.
10. Domazet N.: udžbenik, Hirurgija sa ortopedijom i traumatologijom, Beograd, 1996.
11. Terzić N.: Zdravstvena nega u hirurgiji, udžbenik, Lazarevac, 2006.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	15	0	0	0

Methods of teaching:
lectures using various video materials, exercises, case studies, discussion, dummy exercises, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		

Colloquiums	30		

BIOLOGICAL MATERIALS AND LABORATORY TECHNIQUES

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Biological Materials and Laboratory Techniques**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, second semester
ECTS:	5
Requirement:	no

Course objective:
Familiarization of students with the tasks of the laboratory in clinical diagnostics, familiarization with different biological materials, their extraction, adequate transportation and storage, laboratory result testing in clinical practice.

Course outcome:
Upon the completion of the course, students will possess knowledge of the basics of work in the medical-biochemistry laboratory, possibilities of its functioning and first of all of the types of biological materials, methods of preparing patients for sample collection, adequate sampling (preanalytical variables), ways of sample storage, transportation and processing, impact of medicines on the adequacy of sampling, as well as of the basics of interpreting results of medical-biochemical analysis.

Course content:
Lectures
The notion of medical-biochemistry laboratory, clinical chemistry, clinical biochemistry, laboratory medicine, preanalytics, laboratory diagnostics; organization of the provision of laboratory services at primary, secondary and tertiary level; biological materials, their importance and adequate measures in sample collection, storage and transportation; capillary puncture and phlebotomy in standard conditions; blood draw procedure; anticoagulants – different coagulants and other additives used in sample preparation; preanalytical variables, the importance of adequate preparation of the patient and the impact of preanalytical variables on the quality of biological material; the impact of climate on the results of analysis; the impact of medicines on the analysis; types of patient preparation; control of appropriateness of taken samples; result control; basics of interpretation of results of medical-biochemical analysis; basics of laboratory procedure; sound laboratory practice; GMP standard; specific characteristics of sampling of certain categories of patients; specific characteristics of sampling certain types of biological materials; work with potentially contagious patients; ethics and data protection.
Exercises
Introduction into laboratory diagnostics; organization of work in the laboratory; types of biological materials; medical waste management; ISO15189 Standard; biological material taking and processing; venouos and capillary blood draw; preanalytical, analytical and postanalytical stage; biochemical analyses; immunochemical analyses; microbiological sample collection and processing; urine analysis.

Literature:
Literature in English:

1. Morrow A. S.: Diagnostic and Therapeutic Technic: A Manual of Practical Procedures Employed in Diagnosis and Treatment, Forgotten Books, London, 2019.
2. Shankara S.: Laboratory Manual for Practical Biochemistry, Jaypee Brothers, New Delhi, 2018.
3. Guder W. G.: Samples from the patients to the laboratory-the impact of preanalytical variables on the quality of laboratory results, GIT Verlag, Darmschtate, 2001.
4. Senger R. S.: Laboratory Manual of Biochemistry: Methods and Techniques, NIPA, London, 2014.
5. Marshall W. J., Bangert S. K.: Clinical Chemistry, Mosby, Edinburgh, 2004.

Literature in Serbian:
6. Ubavić M.: Interpretacija najčešćih laboratorijskih analiza i uticaj lekova na njih, udžbenik, Omega MS Pharmacy, Novi Sad, 2017.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstrations, lectures and practical exercises in a laboratory.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

BUSINESS COMMUNICATION SKILLS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Business Communication Skills**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
With his/her active participation in the learning process, student should acquire knowledge in the area of communications in order to acquire communication competency and skills required for professional work in nursing and treatment of senior citizens, organizational and team communication and in communication with social partners.

Course outcome:
At the end of the course student should be capable to apply the acquired knowledge in communication skills and to practically implement the acquired knowledge and skills within nursing.

Course content:
Lectures
General notions, aspects, types, parts of communication; communication competency in professional work; barriers in communication; specific characteristics of communication with elderly persons; importance of verbal and non-verbal communication with elderly persons; specific features of application of communication health care education methods with elderly persons; communication and health care educational counselling – supporting methods; first contact establishing and talking with patients; specific features and communication with persons with sensory perception disorders; ethics in communication; political and social correctness in communication; professional identity and communication; communication styles; emotional communication, empathy; communication as social support; communication and pathological distress in nursing elderly persons and in palliative care; therapy and informational communication; psychological-social aspect of communication; communication with persons under stress and in crisis; communication with persons of diminished sensory and verbal abilities; communication with families of elderly persons; communication in grievance; interpersonal communication; team work and social partners; public relations of organization with an aim of reaching mutual understanding and attaining common interests; communication in crisis situations; managing conflicts and their understanding.
Exercises
Aspects of communication. Verbal and non-verbal communication with the old. Empathy. Ethical principles. Creative workshops of exercising methods of verbal communication: speaking, listening, reading, writing. Non-verbal communication.. Specific aspects of communication with patients with sensory perception disorders. Team work. Therapy and informational communication. Implementation of health care educational methods with old persons. Managing conflicts and their solution. Application of SOLER technique. Communication and psychological distress in palliative care. Procedures in grievance period.

Literature:
Literature in English:
1. Hugman B.: Healthcare Communication, textbook, Pharmaceutical Press, London, 2009.
2. Lloyd M., Bor R., Noble L.: Clinical Communication Skills for Medicine, textbook, Elsevier, New York, 2018.
Literature in Serbian:
3. Holi K.: Veština uspešne komunikacije, Laguna, Beograd, 2017.
4. Lejman K., Djufrejn D.: Poslovna komunikacija, Data Status, Beograd, 2015.
5. Tomić Z.: Komunikacija i javnost, Čigoja štampa, Beograd, 2007.
6. Kekuš D.: Komunikacije u profesionalnoj praksi zdravstvenih radnika, udžbenik, Beograd, 2010.
7. Kekuš D.: Modeli integrisanih komunikacija u zdravstvu, udžbenik, Fakultet organizacionih nauka, Beogradu, 2009.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	Points	Final Exam	Points
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

BUSINESS ENGLISH

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Business English**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, fifth semester
ECTS:	5
Requirement:	no

Course objective:
Course objective is familiarization with characteristics of the English language, adoption of phrases and patterns necessary for communication at professional level and adoption of techniques of written and oral expressing in professional communication.

Course outcome:
Students will be able to apply the acquired knowledge in professional communication, create corresponding written forms in accordance with their professional communication and use speech patterns appropriate to a given situation.

Course content:
Lectures
Broadening of knowledge on past tenses, dependent and relative clauses; temporal conjunctions and temporal clause structure; historical and biographical texts; topics: health, connections and common life in English-speaking countries; extension of knowledge on future tenses, use of subjunctive, conjunctions, and relative clause structure; topics: sport, environment protections and business life in English-speaking countries; medical terminology relevant for student´s profession.
Exercises
Students are taught to communicate in different situations (at doctor´s, with service providers etc.), to seek and give information on the phone, to make bookings, to communicate in conflict situations, to express their views and feelings, to give accounts orally and in writing of past events through adequate use of past tenses and temporal conjunctions; students are taught to express their opinion orally and in writing on current topics, to participate in discussions, to independently present certain topics, to give reports on personal experience and to ask others on their experience.

Literature:
Literature in English:
1. MacLean J.: English in Basic Medical Science, textbook, Oxford University Press, Oxford, 2000.
2. Murphy R.: English Grammar in Use, Cambridge University Press, Cambridge, 2014.
3. McCarthy M., O'Dell F.: English Vocabulary in Use, Cambridge University Press, Cambridge, 2006.
4. Hornby A. S.: Oxford Advanced Learner's Dictionary of Current English, Oxford University Pres, Oxford, 2008.
5. Evans V., Dooley J., Tran T. M.: Career Paths, Medical Book 1, udžbenik, Express Publishing, Berkshire, 2018.
Literature in Serbian:
6. Dragović R.: Engleski za zdravstvene radnike, udžbenik, Naučna knjiga, Beograd, 2004.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises, communication, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercieses/professional practice	40		
Colloquiums	20		

BUSINESS GERMAN

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Business German**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, fifth semester
ECTS:	5
Requirement:	no

Course objective:
Course objective is familiarization with characteristics of the German language, adoption of phrases and patterns necessary for communication at professional level and adoption of techniques of written and oral expressing in professional communication.

Course outcome:
Students will be able to apply the acquired knowledge in professional communication, create corresponding written forms in accordance with their professional communication and use speech patterns appropriate to a given situation.

Course content:
Lectures
Broadening of knowledge on past tenses, dependent and relative clauses; temporal conjunctions and temporal clause structure; historical and biographical texts; topics: health, connections and common life in German-speaking countries; extension of knowledge on future tenses, use of subjunctive, conjunctions, and relative clause structure; topics: sport, environment protections and business life in German-speaking countries; medical terminology relevant for student´s profession.
Exercises
Students are taught to communicate in different situations (at doctor´s, with service providers etc.), to seek and give information on the phone, to make bookings, to communicate in conflict situations, to express their views and feelings, to give accounts orally and in writing of past events through adequate use of past tenses and temporal conjunctions; students are taught to express their opinion orally and in writing on current topics, to participate in discussions, to independently present certain topics, to give reports on personal experience and to ask others on their experience.

Literature:
Literature in English:
1. Menschen A1 KB und Menschen A1 AB, udžbenik, Klett Verlag, Stuttgart, 2018.
2. Pude E. A., Specht F.: Menschen, Deutsch als Fremdsprache Kursbuch mit DVD-ROM, udžbenik, Hueber Verlag, Munchen, 2012.
3. Loibl B. et all.: Schritte Plus im Beruf, Kommunikation am Arbeitsplatz, Max Hueber Verlag, Ismaning, 2015.
4. Becker N., Braunert J.: Alltag, Beruf, Kursbuch+Arbeitsbuch, Max Hueber Verlag, Ismaning, 2009.
5. Becker N., Braunert J., Schlenker W.: Unternehmen Deutsch Grundkurs. Kursbuch, Klett Verlag, Stuttgart, 2005.
6. Becker N., Braunert J.: Unternehmen Deutsch Grundkurs, Arbeitsbuch, KlettVerlag, Stuttgart, 2004.

Literature in Serbian:
7. Grammatik - Ganz klar Übungsgrammatik A1-B1, uz audio materijal, Hueber Verlag, kratak pregled gramatike sa vežbanjima „Hallo aber Deutsch“.
8. Nikolovski V.: Gramatička vežbanja „Eine kleine Übungsgrammatik“, Zavod za udžbenike i nastavna sredstva, Schritte international 1, Grammatikspiele.
9. Vučković-Stojanović M.: Uvod u nemački poslovni jezik, udžbenik, Savremena administracija, Beograd, 2005.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises, communication, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

CHILD AND ADOLESCENT NURSING IN PEDIATRICS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Child and Adolescent Nursing in Pediatrics**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, fourth semester
ECTS:	6
Requirement:	Basics of Nursing, Basics of Pediatrics

Course objective:
Familiarizing students with medically healthy and sick children and pediatric treatment process; familiarizing with the role of therapist in pediatrics; analyses of studies and planning requirements in pediatric nursing of patients for individuals and groups; understanding the importance of inclusion of parents in child nursing; improvement of abilities for successful communication with children receiving treatment, parents and members of medical team; motivating students to seek creative solutions to problems in nursing process.

Course outcome:
Upon the completion of the course students will improve therapy communication; they will get to know and understand nursing interventions in the area of pediatric nursing; understanding ethical principles, parents ´nursing; ability to recognize emergencies and possible complications in children in life-threatening conditions; improved critical analysis of literature for seminar paper preparation and individual patient case studies.

Course content:
Lectures
Nurse intervention in prenatal diagnostics; specific features of nursing of children with inborn errors of metabolism; specific features of nursing in neonatology; nursing intervention in monitoring growth and development; basic principles of nutrition of healthy and sick children; specific features of nursing of children with nutrition disorders; specific features of nursing of children with endocrine diseases; specific features of nursing in pediatric gastroenterology; specific features of nursing in pediatric pulmonary wards; specific features of nursing in pediatric cardiology wards; specific features of nursing in pediatric immunology wards; specific features of nursing in pediatric hematology wards; specific features of nursing in neuropediatric wards; specific features of nursing in pediatric nephrology wards; specific features of nursing of adolescents; specific features of nursing of children after poisoning; nurse intervention during child reanimation and in most frequent emergency conditions in pediatrics.
Exercises
Nurse interventions in nursing healthy newborn. Natural nutrition – breastfeeding and breastfeeding technique. Nurse interventions in nursing infants, nutrition in infant´s first year. Nurse interventions in nursing sick newborn. Prevention and fighting intrahospital infections. Nurse interventions – diagnostic and therapeutic procedures in neonatology. Nurse interventions – nursing children with nutrition disorders. Nurse interventions – enteral and parenteral feeding. Nurse interventions – children with cardiovascular system diseases. Nurse interventions – children with kidney and urinary tract diseases. Nurse interventions – children with blood disorders. Nurse interventions – children with gastrointestinal tract and liver diseases. Nurse interventions – children with respiratory system diseases. Nurse interventions – children suffering from diabetes mellitus. Nurse interventions – children with immunology disorders, allergy and rheumatic diseases. Nurse interventions – children with CNS diseases. Nurse interventions – children with genetic disorders. Nurse interventions – critically ill children. Nurse interventions – intoxications.

Literature:
Literature in English:

1. Kliegman R. M., Jenson H. B., Behrman R. E.: Nelson Textbook of Pedi.atrics, Sounders, New York, 2007.
2. Aruchamy L.: Practical Pediatrics Paperback, Jaypee, New Jersy, 2020.
3. Datta P.: Pediatric Nursing, textbook, Jaypee Brothers Medical Publishers, New Jersey, 2018.

Literature in Serbian:

4. Jovanović Privrodski J.: Pedijatrija, udžbenik, Medicinski fakultet, Novi Sad, 2012.
5. Mardešić D.: Pedatrija, udžbenik, Školska knjiga, Zagreb, 2003.
6. Marinković Lj.: Zdravstvena nega u pedijatriji, udžbenik, G.A.D., Beograd, 2007.
7. Janković B.: Vodič osnovno i specijalizovano zbrinjavanje novorođenčeta, Institut za zdravstvenu zaštitu majke i deteta Srbije "Dr Vukan Čupić", Beograd, 2011.
8. Berman R., Kligman R., Dženson H., Nelson N.: Udžbenik pedijatrije, Bard-Fin, Beograd, 2009.
9. Felc Z.: Osnove neonatologije, udžbenik, Fakulteta za zdravstvene vede, Maribor, 2008.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	15	240	0	0

Methods of teaching:
lectures using various video materials, exercises, case studies, discussion, dummy exercises, and clinical practice.

Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

DIAGNOSTICALLY-THERAPEUTIC PROGRAM

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Diagnostically-Therapeutic Program**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, fourth semester
ECTS:	5
Requirement:	Pathophysiology

Course objective:
Familiarization of students with diagnostic and therapeutic procedures used in the daily operations of a medical-biochemical laboratory in clinical diagnostics with various biological materials, their proper use, extraction, transport, and storage; methods of testing in clinical practice, as well as the basic concepts related to conducting analysis, potential (significant) variations in laboratory test results influenced by a range of external factors, interpretation of results, and the importance of implementing GLP (Good Laboratory Practice) and the ISO 17025 and ISO 15189:2014 standards. Through this course, students will be guided through patient preparation, the sampling procedure, explanation of the analysis itself, as well as a series of factors that can influence the obtained values of the analysis.

Course outcome:
Upon completion of the course, successful completion of exercises, and passing the exam, the student will be familiar with a series of diagnostic and therapeutic procedures used in the daily operations of a medical-biochemical laboratory in clinical diagnostics with various biological materials. The student will be trained for the proper use, extraction, transport, and storage, and will understand methods of their examination in clinical practice. Most importantly, the student will understand the fundamental concepts related to conducting the analysis itself, potential variations in laboratory test results due to the influence of a range of external factors, and the interpretation of analysis results. Additionally, the student will understand the importance of introducing GLP (Good Laboratory Practice) and the standards ISO 17025 and ISO 15189:2014.

Course content:
Lectures
The notion of a medical-biochemical laboratory, laboratory medicine, preanalytics, laboratory diagnostics; biological materials, their significance, and appropriate measures for sampling, storage, and transport; the importance of proper patient preparation and the impact of preanalytical variables on the quality of biological material; types of patient preparation; patient preparation and sampling procedure; quality control of the collected sample; related analyses, related conditions, analysis methods; explanation of analysis; reference values; lowered and elevated serum concentration values; false decreased and false increased values; Impact of medications (with listed generic drug names that affect laboratory values in terms of decreasing or increasing values); Analysis: Aacidum uricum (uric acid), Activated partial thromboplastin time (APTT), Alanine aminotransferase (ALT) or Serum glutamate-pyruvate transaminase (SGPT), Albumin, Alpha-amylase in serum, Alpha-amylase in urine, Alpha-fetoprotein (AFP), Alkaline phosphatase (ALP), Anti-thyroglobulin antibodies (Anti-Tg-At), Anti-thyroid peroxidase antibodies (Anti-TPO-At), Aspartate aminotransferase (AST) or Serum glutamate-oxaloacetate transaminase (SGOT), Bilirubin (total and direct), C-peptide, C-reactive protein (CRP), Dehydroepiandrosterone sulfate (DHEA-S), Erythrocytes (Er), Estradiol (E2), Fibrinogen, Follicle-stimulating hormone (FSH), Inorganic phosphates (P), Glycated hemoglobin (HbA_{1c}), Glucose (blood sugar), Gamma-glutamyl transferase (gamma-GT, GGT), Gamma-glutamyl transpeptidase (GGTP), Iron (Fe), HDL cholesterol (HDL-H), Hemoglobin (Hb), Chlorides (Cl), Cholesterol, Cholinesterase (HE), Growth hormone (GH), Human chorionic gonadotropin (hCG), Immunoglobulin A (IgA), Immunoglobulin E (IgE), Immunoglobulin G (IgG), Immunoglobulin M (IgM), Insulin, Calcium (Ca), Potassium (K), Carcinoma antigen 15-3 (CA 15-3), Carcinoma antigen 19-9 (CA 19-9), Carcinoma antigen 125 (CA 125), Carcinoembryonic antigen (CEA), Acid phosphatase (AcP), Prostatic acid phosphatase (AcP-P), Cortisol, Creatinine, Creatine kinase (CK), Creatine kinase-MB (CK-MB), Lactate dehydrogenase (LDH), Leukocytes (Le), Luteinizing hormone (LH), Magnesium (Mg), Sodium (Na), Parathyroid hormone (PTH), Progesterone (Ps), Prolactin (PRL), Prostate-specific antigen (PSA), Total proteins, Prothrombin time (PT), Free thyroxine (FT4), Free triiodothyronine (FT3), Testosterone, Thyroxine (T_4), Triglycerides, Triiodothyronine (T_3), Total iron-binding capacity (TIBC and UIBC), Platelets (Tr), High-sensitivity C-reactive protein (hsCRP), High-sensitivity thyroid-stimulating hormone (hcTSH), Urea, Urine.
Exercises
Introduction to laboratory diagnostics. Organization of laboratory work. Types of biological materials. Medical waste management; ISO15189 standard. Biological material collection and processing. Demo exercises: selected biochemical and immunochemical analyses. Microbiological sample collection and processing Urinalysis. Analysis of the impact of external factors on the values of selected analysis

Literature:
Literature in English:
1. Morrow A. S.: Diagnostic and Therapeutic Technic: A Manual of Practical Procedures Employed in Diagnosis and Treatment, Forgotten Books, London, 2019.
2. Guder Samples W. G.: From the patients to the laboratory-the impact of preanalytical variables on the quality of laboratory results, textbook, GIT Verlag, Darmschtate, 2001.

3. Marshall W. J., Bangert S.K.: Clinical Chemistry, Edinburgh Mosby, Edinburgh, 2004.
Literature in Serbian:
4. Ubavić M.: Interpretacija najčešćih laboratorijskih analiza i uticaj lekova na njih, udžbenik, Novi Sad, 2017.
5. Kladnik J. B.: Farmakologija, udžbenik, Visoka zdravstvena škola univerziteta u Mariboru, Maribor, 2006.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	315	0	0

Methods of teaching:
lectures using various video materials,exercises, case studies, discussion, and clinical practice.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

DIETARY ISSUES AND NUTRITION OF INPATIENTS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Dietary Issues and Nutrition of Inpatients**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, third semester
ECTS:	5
Requirement:	no

Course objective:
The course should enable student to acquire knowledge on specific forms of nutrition of certain groups of patients, familiarization with biological valued of certain nutritional components and planning nutrition in line with physiological needs.

Course outcome:
Upon the completion of the course student should be able to assess the status of nourishment of individuals and population groups and to determine diets depending on the specific features of consuming groups.

Course content:
Lectures
Familiarization with appropriate diet. Preventive clinical approach to appropriate nutrition, familiarization with method of evaluation of nutritional status. Measures in nutrition evaluation and improvement. Health aspects of nutritional disorders, nutritional deficits and diseases caused by excessive food intake. Nutrition in specific circumstances. Nutrition and health, importance of appropriate nutrition on certain stages of organism development, principles of appropriate nutrition, standards. Metabolism, need for and biochemical function of nutritional and protective components (proteins, lipids, carbohydrates, minerals, oligoelements, vitamins). Diseases caused by inadequate nutrition. Principles of adequate nutrition and population education. Nutrition as a cause of disease and pathological factor. Principles of control of food safety and quality. Basics of medical nutritional therapy and education of patients. Sanitary control of facilities, employees, food staples and prepared food.
Exercises
Principles of nutrition in public places (nurseries, pre-school and school cafeterias, student dormitories, senior citizen institutions, public institution restaurants). Nutrition in hospitals, rehabilitation institutions, recreational centres, tourist and sports facilities. Principles of adequate nutrition and population education. Nutrition as a cause of a disease and pathological factors. Principles of food safety and quality control. Basics of medical nutritional therapy and education of patients. Nutrition of patients in hospital and non-hospital institutions and types of diet. Parenteral nutrition. Nutrition of children and the youth, pregnant and breastfeeding women and elderly persons. Obesity and undernutrition. Exercises, among other things, include drawing up nutrition plans for designated groups of patients practical classes.

Literature:
Literature in English:
1. Nelms M., Long Roth S.: Medical Nutrition Therapy: A Case Study Approach, Cengage Learning, Boston, 2013.
Literature in Serbian:
2. Novaković B., Mirosavljev M., Jevtić M.: Higijena ishrane, udžbenik, Medicinski fakultet, Novi Sad, 2005.
3. Grujić R.: Nauka o ishrani čovjeka, TEMPUS, Banja Luka, 2006.
4. Ministarstvo zdravlja Republike Srbije: Vodič dobre prakseu oblasti sanitarnog nadzora, Beograd, 2005.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam commitments	**Points**	**Final Exam**	**Points**
Lecture attendance	3	exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	30		
Colloquiums/exam	30		

EMERGENCY MEDICINE AND NURSING IN SPECIAL CONDITIONS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Emergency Medicine and Nursing in Special Conditions**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	third year, fifth semester
ECTS:	8
Requirement:	Basics of Nursing

Course objective:
Students are familiarized with prehospital and initial hospital organization and care of emergency and critical conditions in medicine, basic and extended measures of cardiopulmonary resuscitation. It is necessary to familiarize students with stages in determining the abrupt death and care of not only the dead person, but also of those left behind, as well as of a positive impact on friends and family. Possession of skills for practical application of the acquired knowledge in practice. Development of critical thinking.

Course outcome:
Familiarization of students with prehospital and initial hospital organization and care of emergency and critical conditions in medicine. Familiarization of students with mistakes that might happen during provision of care in emergency medical practice. Responsibilities of doctors in case of occurrence of abrupt death. Administration of medication and application of sophisticated technologies in emergency medicine and possibilities of their application in research work. Knowing how to apply basic and extended measures of cardiopulmonary resuscitation (in adults and children), basic and extended measures and procedures in taking care of injured persons (adults and children). Exercises are carried out on dummies and patients, as well as through presentations of possible medical cases with question, answers and discussion.

Course content:
Lectures
Principles of emergency medicine; evaluation of vital functions; pain as the fifth vital parameter; evaluation, maintenance and opening airway; artificial ventilation; acute chest pain (evaluation and care); acute coronary syndromes; cardiogenic shock; syncope; emergency states in vascular medicine (dissection, rupture, acute occlusions, deep vein thrombosis, embolies); peri-arrest arrhythmias (tachyarrhythmiae, bradyarrhythmiae); hypertensive emergencies; acute cardiac arrest; basic and extended measures of cardiopulmonary resuscitation in adults and children; death case – stages of determining abrupt death, communication with family; medicolegal aspects of emergency medicine; acute peripheral artery ischemia; acute active bleeding; hypovelomic shock; volume resuscitation; anaphylactic shock; respiratory insufficiency; acute affixion (identification signs, initial care); acute intracranial/spinal compression; acute intestinal obstruction; acute urinary obstruction; epilepsy and convulsions; delirium and acute confused states; acute headache; ischemic stroke; transitory ischemic attack; subarachnoid hemorrhage; increased body temperature in children; dehydrated child; trauma – heavy isolated and heavy multiple; prehospital primary examination (ABCDE principle) and stabilization at injury infliction site; prehospital care during transport; initial hospital care; acute poisoning.
Exercises
Evaluation and maintenance of airway – exercises on dummy. Side relaxing position – exercises on dummy. Mechanical devices and airway opening. Bolus obstruction in adults and children – exercises on dummy. Difficult airway. Artificial ventilation methods – exercises on dummy. Intravascular accesses (peripheral venous, central venous, intraosseous) – exrecises on dummy. Volume compensation infusion solutions. Vasoactive, inotropic and antiarrhythmic drugs as initial pharmacotherapy in emergency states (methods of administration, preparation, dosage, indications). Basic CPR measures in adults and children – exercises on dummy; ECG forms of cardiac arrest and ECG recognition of peri-arrest arrhythmia; early defibrillation (types of defibrillator, indications). Cardioversion. Transcutaneous cardiac pacing – exercises on dummy. Extended measures of CPR in children and adults – exercises on dummy. Cardiac arrest pharmacotherapy (types of medication, methods of administration). Asystole algorithm – exercises on dummy. Therapy algorithm of pulseless electrical activity – exercises on dummy. Therapy algorithm of ventricular fibrillation and ventricular tachycardia without pulse – exercises on dummy. Simulations of cardiac arrest and CPR in children and adults. Simulations of peri-arrest arrhythmia and care. External compression, compression bandage. MAST application. Nasogastric intubation. Urinary bladder catheterization. Anterior and posterior epistaxis. Needle thoracostomy. Decompressive needle pericardiocentesis – exercises on dummy. Multiple trauma simulations: primary ABCDE and secondary examination. Multiple trauma simulation – point system in diagnosis and assessment of outcomes of the traumatized. Sedation and analgesia (indications, types of medication and methods of administering). Familiarization with pre-hospital care. Institute of Emergency Medical Aid. Familiarization with contents of initial hospital care in emergency clinic.

Literature:
Literature in English:
1. Advanced First Aid, CPR, and AED, American Academy of Orthopaedic Surgeons (AAOS), Jones & Bartlett Learning, 2017.
2. Cydulka R., Cline D., Ma O. J., Fitch M., Joing S., Wang V.: Tintinalli's Emergency Medicine Manual, textbook, McGraw-Hill Education, New York, 2017.
3. Hammond B. B., Zimmermann P. G.: Sheehy's Manual of Emergency Care: Sheehy's Manual of Emergency Care, textbook,

Mosby, London, 2012.
4. Carsten Lott i sar.: Advaced life support course manual, European resuscitation council, ERC guidelines 2015.

Literature in Serbian:

5. Kalezić N. i sar.: Inicijalni tretman urgentnih stanja u medicini, udžbenik, Medicinski fakultet, Beograd, 2016.
6. Vučović D.: Urgentna medicina, udžbenik, Obeležja, Beograd, 2002.
7. Pavlović A.: Prva pomoć, udžbenik, Obeležja, Beograd, 2007.
8. Pavlović A.: Kardiopulmonalno cerebralna reanimacija, Obeležja, Beograd, 2004.
9. Newton C. R. H., Khare R. K.: Urgentna medicina, Besjeda, Banja Luka, 2007.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	240	0	0

Methods of teaching:
lectures, exercises, case studies, discussion, e-learning, clinical practice.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

ETHICS IN HEALTH CARE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Ethics in Health Care**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
Acquisition of basics of applied medicine ethics, understanding practical importance of ethics and recognizing differences between ethical and legal issues, development of critical thinking in the process of ethical analysis, understanding national, European and international legal regulations, knowing rights and responsibilities in health protection, health insurance, as well as knowing rights and responsibilities of providers of medical services, their beneficiaries and of the third party.

Course outcome:
After passing the exam, students will be able to critically think on normative and ethical principles, they will know the difference between legal and ethical issues, be able to make critical judgements at provision of health care services if they include moral duties and will be able to understand laws regulating aspects of health care activities, rights and responsibilities of health care professionals, patients and the third party.

Course content:
Lectures
Normative ethics in medicine; ethical principles of importance for health care professionals; theories of medical ethics; ethical norms in medical practice; ethical case studies in health care practice, moral values, misjudgment; mistakes in practice, moral and criminal liability of health care professionals; ethical judgement in observance of moral values and rights of patients; non-observance of codified principles; ethics in preclinical and clinical studies (basics); ethics committee; European and international regulations; national health care policy; Serbian Medical Chamber; medical license; court of honor.
Exercises
Analysis and discussion on case studies (information and data generation and critical assessment). Problem-based learning (problem-solving with appropriate explanation of ethical concept and legal framework). Panel discussions, application of ethics and laws in current issues (drug testing, suicide, placebo, euthanasia, keeping confidential information on patient and medicine).

Literature:
Literature in English:
1. Fregmen B. F.: Medical Law and Ethics, textbook, Prentice Hall, New Jersey, 2011.
Literature in Serbian:
2. Marić J.: Medicinska etika, autorsko izdanje, Beograd, 2008.
3. Lazarević A.: Socijalna medicina, autorsko izdanje, 2005.
4. Nenadović M.: Medicinska etika, Medicinski fakultet, Kosovska Mitrovica, 2007.
5. Grujić V., Martinov Cvejin M., Legetić B.: Socijalna medicina, udžbenik, Medicinski fakultet, Novi Sad, 2011.
6. Zakoni i podzakonska akta Republike Srbije iz oblasti zdravstva.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, workshops, case study, problem-based learning, exercises.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

FIRST AID

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**First Aid**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, third semester
ECTS:	5
Requirement:	no

Course objective:
Principal goals of first aid education is familiarization of students with principles of initial care of suddenly injured or fallen ill persons, acquisition of skills for practical application of the acquired knowledge in practice, immediate life-saving care of a casualty, other persons, to preserve the environment and to improve protection from further injuries and hazards.

Course outcome:
Familiarization of students with the forms of sudden ailments and injuries and methods of prompt and immediate care; skills in examination and prompt recognition of signs and symptoms in sick or injured persons requiring immediate and urgent care.

Course content:
Lectures
Examination and triage of the injured; evacuation of the injured (taking out, carrying out and transport); assessment of vital functions and state of consciousness; airway opening and keeping; bolus obstruction – partial, total, procedure algorithm in adults and children; artificial respiration – expiratory airflow; recovery positions of abruptly injured or sick person (side – relaxing, semi-side, stomach, semi-laying, semi-sitting, sitting, knee-elbow, kneeling, autotransfusion); cardiac arrest – identification and resuscitation measures in adults and children; application of semiautomated external defibrillators (AED); procedure algorithm – basic resuscitation measures in adults and children; bleeding – identification and procedures in external and internal bleeding; traumatic amputation care procedure; open injuries (wounds) – care; bone and joint system injuries (notion, types); temporary immobilization; head and vertebral column injuries; thoracic rib and stomach injuries; care procedures; complications and their prevention; injuries caused by heat and electricity, care; injuries caused by the cold, care; specific injuries, diseases and conditions, care.
Exercises
Examination and triage of the injured. Evacuation of the injured (taking out, carrying out and transport). Assessment of vital functions and state of consciousness. Airway opening and keeping. Bolus obstruction – partial, total, procedure algorithm in adults and children. Artificial respiration – expiratory airflow. Recovery positions of abruptly injured or sick person (side – relaxing, semi-side, stomach, semi-laying, semi-sitting, sitting, knee-elbow, kneeling, autotransfusion). Cardiac arrest – identification and resuscitation measures in adults and children. Application of semiautomated external defibrillators (AED). Procedure algorithm – basic resuscitation measures in adults and children. Bleeding – identification and procedures in external and internal bleeding. Traumatic amputation care procedure. Open injuries (wounds) – care. Bone and joint system injuries (notion, types). Temporary immobilization. Bone and joint system injuries (notion, types). Bone and joint system injuries (notion, types). Care procedures. Complications and their prevention. Injuries caused by heat and electricity, care. Injuries caused by the cold, care. Specific injuries, diseases and conditions, care.

Literature:
Literature in English:

1. Cydulka R., Cline D., Ma O. J., Fitch M., Joing S., Wang V.: Tintinalli's Emergency Medicine Manual, McGraw-Hill Education, New York, 2017.
2. Hammond B. B., Zimmermann P. G.: Sheehy's Manual of Emergency Care: Sheehy's Manual of Emergency Care, Mosby, London, 2012.
3. Carsten Lott i sar.: Advaced life support course manual, European resuscitation council, textbook, ERC guidelines 2015.
4. Advanced First Aid, CPR, and AED, American Academy of Orthopaedic Surgeons (AAOS), Jones & Bartlett Learning, 2017.

Literature in Serbian:

5. Pavlović A.: Prva pomoć, udžbenik, Obeležja, Beograd, 2007.
6. Pavlović A.: Kardiopulmonalna reanimacija, Obeležja, Beograd, 2007.
7. Newton C. R. H., Khare R. K.: Urgentna medicina, prevod, Besjeda, Banja Luka, 2007.
8. Kalezić N. i sar.: Inicijalni tretman urgentnih stanja u medicini, udžbenik, Medicinski fakultet, Beograd, 2016.
9. Vučović D.: Urgentna medicina, udžbenik, Obeležja, Beograd, 2002.

Number of classes

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:

lectures, exercises, case studies; e-learning, exercises on dummy; visits of accredited specialists.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

GERIATRICS WITH NURSING IN GERIATRICS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Geriatrics with Nursing in Geriatrics**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
Students will acquire knowledge and skills in nursing of senior citizens, understand their bodily, social and psychological needs and problems, be familiar with the possibilities of taking care of them in institution or at their home.

Course outcome:
Upon the course completion student should be able to recognize specific problems of the old, evaluate their functional abilities and possibilities of self-care, train them in self-care and treatment in senior citizens institutions and geriatric hospitals.

Course content:
Lectures
The notion of gerontology and geriatrics; physical, psychological and social aspect of getting old; recognition of problems of the old; theories of getting old, specific way of defining getting old, health issues, old-age illnesses, prevention of complications, treatment, nursing and rehabilitation; care categorization, therapeutic procedure, specific features of communication; most frequent health issues of the old, their prevention and treatment; the role of nurse in health protection and nursing of the old; specific features of nursing in senior citizen institutions and geriatric centers; specific features of medical rehabilitation of old persons; institutions taking care of the old; direction of geriatrics development in the EU; importance of psychical rehabilitation of the old; everyday life activities; psychophysical activity, elimination of the feeling of being deserted; team activities, past time activity organization, artistic and sports activities; care of local community for improvement of life of senior citizens (associations, day centers); gerontology centers, work organization, activities within centers; work in gerontology centers in Serbia and EU countries; importance of prevention; palliative care and work with families; education of population in volunteering; familiarization with social protection of old persons.
Exercises
Changes in certain body systems and organs due to getting old, basic human needs and getting old, evaluation of functional abilities and possibilities of self-care, most frequent health issues of the old, education in self-care and treatment. Specific features of the old patient population. Nursing of old persons, work in gerontology center. Organization of old person workshop. Importance of prevention. Assessment of conditions for home care. Cooperation with social work centers. Visiting senior citizens´ clubs. Demonstration of nursing procedures at home; education of families in taking care. Preparation of old persons and their accommodation in an institution. Training family in visiting and preparation for return home. Practical application of tests (fall prevention Katz index, Norton and Branden Scale – patient risk for pressure ulcer development etc.).

Literature:
Literature in English:

1. Boltz. M.: Evidence-Based Geriatric Nursing Protocols for Best Practice, Springer Publishing Company, New York, 2012.
2. Halter J. B., Ouslander J. G., Tinetti M., Studenski S., High K. P., Asthana S.: Hazzard's Geriatric Medicine and Gerontology (Principles of Geriatric Medicine & Gerontology), textbook, McGraw-Hill Education, New York, 2009.
3. Warshaw G., Potter J., Flaherty E., McNabney M. K., Heflin M. T., Ham R.: Ham's Primary Care Geriatrics, textbook, Elsevier, New York, 2021.
4. Taylor R.: Oxford Handbook of Palliative Care, Oxford Press, Oxford, 2009.

Literature in Serbian:

5. Vukadinov J.: Gerijatrija i nega starih osoba, udžbenik, Medicinski fakultet, Novi Sad, 2006.
6. Šarenac D.: Zdravstvena nega starih, udžbenik, Licej, Beograd, 2009.
7. Stavljenić – Rukavina A., Renato Mitermayer R., Tomek Roksandić S., Mustajbegović J.: Kvaliteta dugotrajne skrbi starijih osoba, Centar za gerontolgiju, Referentni centar Ministarstva zdravlja RH za zaštitu zdravlja starijih osoba, priručnik, Zagreb, 2012.
8. Dujaković Z. i sar.: Gerijatrija - medicina starije dobi, udžbenik, Medicinska naklada, Zagreb, 2008.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	180	0	0

Methods of teaching:
lectures using various video materials, exercises, workshops, clinical practice, visits of teaching base employees.

Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**

Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

HEALTH CARE AND SOCIAL-SECURITY LEGISLATION

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Health Care and Social-Security Legislation**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	third year, sixth semester
ECTS:	5
Requirement:	no

Course objective:
Mastering basic legal concepts in the field of health legislation. Familiarizing students with the legal aspect of health care while developing professional awareness, responsibility, and humanity.

Courses outcome:
Upon the completion of the course and passing of the exam the student will be able to define the basic concepts of health care legislation; list the main aspects of the Law on Heath Insurance and Health Care Protection, as well as the basic legal aspects of nursing; explain the organization of the Chamber of Health Care Professionals; and to outline the procedures for acquiring, renewing and revoking licenses for health care professionals. Additionally, the student will be able to identify indicators of health care quality and understand and explain the rights and responsibilities of health care professionals.

Course content:
Lectures
The Law on Health Care Protection - basic provisions related to health care rights, participants in health care, health care activities, health care system, and financing of health care; principles of health protection; The Law on Health Insurance; The Law on Social Protection; Regulation on detailed conditions for performing health activities; Regulation on the internal organization of health care institutions; patient rights; legal regulations for the protection of the population from infectious diseases; legal aspects of the nursing profession; elements of the draft law on nursing; Law on Chambers, acquisition, renewal, and revocation of licenses for health care professionals; legal aspects of continuous medical education; Regulation on health care quality indicators; legal aspects of professional supervision and (re)accreditation processes of health care institutions; legal aspects of occupational health and safety; the specifics of health and social legislation relating to the area of health care from the perspectives of the patient, nurse, health institution, state, and society.
Exercises
During exercise sessions, a comparative analysis of legal aspects primarily in health care is conducted, comparing them to solutions from other countries in the region and the EU, as well.

Literature:
Literature in English:

1. Mossialos E., Permanand G., Baeten R., Hervey T.: Health systems governance in Europe: the role of European Union law and policy, Cambridge University Press, 2010.
2. De Gooijer R.: Trends in EU Health Care Systems, Winfried, 2007.
3. Morrisey M. A.: Health Insurance, textbook, Health Administration Press, London, 2007.
4. Beik Janet I.: Health Insurance Today: A Practical Approach, textbook, Saunders, Philadelphia, 2010.
5. Fregmen B: F.: Medical Law and Ethics, Prentice Hall, New Jersey, 2011.

Literature in Serbian:

7. ICN regulativa i regulativa EU koje se odnose na sve aspekte leka, zdravstvenog osiguranja i prava i obaveza u pružanju zdravstvene zaštite, 2012.
8. Šolak Z.: Ekomnomika zdravstvene zaštite, Zavod za udžbenike i nastavna sredstva, Beograd 2003.
9. Lazarević A.: Socijalna medicina, autorsko izdanje, Beograd, 2015.
10. Simić S. i sar.: Socijalna medicina, udžbenik, Medicinski fakultet, Beograd, 2012.
11. Šolak Z.: Ekomnomika zdravstvene zaštite, Zavod za udžbenike i nastavna sredstva, Beograd 2003.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, workshops, case studies, problem-based learning, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

HEALTH CARE EDUCATION METHODOLOGY AND HEALTH PROMOTION

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Health Care Education Methodology and Health Promotion**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, second semester
ECTS:	5
Requirement:	no

Course objective:

The purpose of health promotion in pre-schools and schools is the adequate development of children and the youth, so that they can grow into healthy, satisfied, successful, self-aware and responsible individuals. In addition to that, the objective of the course is to equip students to understand the role of both the health and non-health sectors and the ways in which they are actively integrated in the process of health promotion.

Course outcome:

Upon completion of the course and passing the exam, the student will possess skills necessary for work with health care and professionals and other community members, groups and individuals in carrying out on health promotion.Above all they will understand the importance of health care education and health promotion, especially for the successful development of preschool children, schoolchildren, and the youth.

Course content:

Lectures

The definition and concept of health care promotion, principles and strategies; the promotion of health and health education in strategic documentation; environments for health promotion implementation ("Healthy City", "Healthy Kindergarten", "Healthy School"...); populational and high-risk strategy for prevention of chronic non-communicable diseases (cardiovascular diseases, diabetes, breast cancer, etc.); behavioral and biological risk factors for the onset of chronic non-communicable diseases; the importance of health promotion in the prevention of infectious diseases (sexually transmitted diseases, lice, viral diseases, measles, COVID-19, etc.); models of behavior which explain changes that lead to health; health education - definitions, goals, methods, and resources; structure of preventive-promotional programs in preschool and school institutions; maternity schools; preschool and school programs; training marginalized groups of people (homeless, Roma, safe houses, etc.); content and organization of work in Health Promotion Centers of public health institutes; evaluation of the health promotion program; continuous medical education for health care professionals.

Exercises

Work in pairs and small groups. Organizing lectures with discussions and panel debates. Pedagogical workshops. The development of opinions in discussions and debates. Case analysis. Use of available and appropriate content from internet resources. Visits of representatives of preschools and schools. Joint work on health promotion projects. Workshops. Existing project (city, provincial, national) analysis focused on health promotion and improvement. Comparative analysis of similar promotional campaigns in the region and the European Union. Joint activities with the Institute for Youth Protection. Visits by guests from safe houses. Collaborative work and visits by representatives of student organizations (senior students). Examples of health promotion campaigns in Serbia and the region.

Literature:

Literature in English:

1. Maville J. A., Huerta C. G.: Health Promotion in Nursing, textbook, Cengage Learning, London, 2012.
2. Glanz K., Rimer B. K., Viswanath K.: Health Behavior and Health Education: Theory, Research, and Practice, textbook, Jossey-Bass, New Jersy, 2008.
3. Poland B., Green L. W., Rootman I.: Settings for Health Promotion: Linking Theory and Practice, Thousand Oaks, Sage, 2000.

Literature in Serbian:

4. Kekuš D.: Zdravstveno vaspitanje, udžbenik, Digital art, Beograd, 2009.
5. Hojer S.: Pristupi i metode u zdravstvenom odgoju, udžbenik, Koledž zdravlja, Ljubljana, 2005.
6. Gerlič I.: Savremene informacione tehnologije u obrazovanju, Nacionalna izdavačka kuća Slovenija, Ljubljana, 2000.
7. Kekuš D.: Komunikacije u profesionalnoj praksi zdravstvenih radnika, Digital Art, Beograd, 2010.
8. Jović S., Bašić S.: Promocija zdravlja i zdravstveno vaspitanje; u: Socijalna medicina sa epidemiologijom i higijenom. Medicinski fakultet Niš, Galaksija, Lukovo, 2011.
9. Pokorn D.: Ishrana u različitim fazama života: dodatak ishrani u ishrani, Maribor/Ljubljana, 2003.
10. Novaković B. Grujić V.: Higijena i zdravstveno vaspitanje, udžbenik, Medicinski fakultet, Novi Sad, 2006.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
30	30	0	0	0

Methods of teaching: lectures using didactic methods, exercises, workshops, field work, seminar papers.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	30		
Colloquiums	30		

HEALTHY LIFESTYLE AND SOCIOLOGY OF HEALTH AND DISEASE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Healthy Lifestyle and Sociology of Health and Diseases**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, fourth semester
ECTS:	3
Requirement:	no

Course objective:
Familiarization of students with the current concept of health and disease sociology, interdisciplinary approach and understanding of health and disease, acquisition of a critical attitude to certain lifestyles affecting the health-disease possibility relation, awareness of importance of prevention, social, national and economic consequences of disease and impact of high technologies on health and disease.

Course outcome:
Upon the completion of the course and passed exam students are familiar with the current concept of health and disease sociology, interdisciplinary approach and understanding of health and disease, they acquire a critical attitude to certain lifestyles affecting the health-disease possibility relation, awareness of importance of prevention. Students also understand social, national and economic consequences of health and diseases.

Course content:
Lectures
Notion of health and disease sociology; psychological, occupational, economic consequences of diseases; impact of disease on organization, society, country, global trends; new diseases in the 20th and 21st century; impact of high technologies on health and disease sociology and appearance of new types of diseases; psychological states; marginalized populations; social strategy, types of insurance and health and disease sociology.
Exercises
Notion of health and disease sociology; psychological, occupational, economic consequences of diseases. Impact of disease on organization, society, country, global trends. New diseases in the 20th and 21st century. Impact of high technologies on health and disease sociology and appearance of new types of diseases. Psychological states. Marginalized population. Impact of the state. Social strategy, types of insurance and health and disease sociology.

Literature:
Literature in English:
1. Tria G. E., Gaerlan J. E., Limpingco D. A.: Principles of Mental Hygiene, Pantas Publishing & Printing, Roterdam, 2010.
2. Bell G. E.: The Good Book of Mental Hygiene, Resource Publications, Borston, 2020.
3. Glen A.: Mental Hygiene: How To Change Your Mind, CreateSpace Independent Publishing Platform, London, 2018.
Literature in Serbian:
4. Simić M., Kovačević K.: Mentalna higijena, udžbenik, autorsko izdanje, Beograd, 2004.
5. Ule M.: Socijalni aspekti moderne medicine, udžbenik, Aristej, Šentilj, 2003.
6. Kaličanin P. i sar.: Stres, zdravlje, bolest, udžbenik, Obeležja, Beograd, 2007.
7. Havelka M. i sar..: Zdravstvena psihologija, Naklada Slap, Jastrebarsko, 2002.
8. Stanković Z., Begović D.: Alkoholizam od prve do poslednje čaše, Kreativni centar, Beograd, 2005.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
15	15	0	0	0

Methods of teaching:
lectures, exercises, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	Points	Final Exam	Points
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

HUMAN RESOURCES MANAGEMENT IN HEALTH CARE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Human Resources Management in Health Care**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, fourth semester
ECTS:	5
Requirement:	no

Course objective:
Familiarization of students with the concept of human resources management. The intention of the course is to present to students principal issues in human resources management and segments of manager activities, with human resources management as one of most important. The final goal of the course predominantly determines the selection of contents (topics) and method or classes realization.

Subjects outcome:
Students will be able to apply the acquired knowledge in human resources management within their future profession.

Course content:
Lectures
Introduction to management and human resource management; differences between management and leadership; basic concepts and functions of management; management in healthcare; management in nursing; main activities of personnel management and human resources management; differences between human resources management and personnel function; social protection in industry; recruitment and selection; adoption of other personnel activities; legislation; flexibility and diversity; information technology; professional associations of personnel members; human resources management; main characteristics of human resources management; issues of human resources management concept; human resources management marketing; human resources strategy and planning; strategy devising process; human resources planning; anticipation of human resources demand; job analysis; evaluation of internal and external human resources supply; unemployment; underqualification; competition; geographical factor; assets; development; rewarding; relations with employees; the European Union: recruitment procedures; job description and person specification, competence profile; person specification, competence profile in the recruitment context; vacancy advertising; targeted recruitment; administrative procedures; supplementary selection techniques; psychological testing; recommendations; health check; relations in employment; rights and responsibilities of both parties; Law on Employment; retirement; payment for work done or performance evaluation; role of employer; impact of personal problems on the job; confidentiality; counseling skill; communication process; hierarchical communication levels; protection at work; working time regulation in the EU; risk assessment; partnership and involvement of employees; employee involvement techniques; basic characteristics of disciplinary procedure; absence control; the role of human resources manager; dismissal and redundancy; fixed-term service agreement; illegal dismissal; rights of dismissed employees; work abroad.
Exercises
CV analysis – case studies. Recruitment of potential candidates, candidate selection – simulation. Employee training – workshop; coaching – simulation. Feedback – simulation. Leadership, difference between leader and director, leader´s skills – workshop, simulation. Individual and group business meetings – simulation. Team spirit and team-building – workshop. Evaluation of employees´ performance, employee personal development plan – case study and simulation. Motivation – workshop. Defining rule system, positive and negative bonus – workshop. Leaving the company, agreement termination, dismissal – workshop, simulation. Change of employee position, recognizing employee´s potential and optimum job positions – workshop. Visits from economic sector (director of a successful company with a great number of employees).

Literature:
Literature in English:
1. Beik J. I.: Health Insurance Today: A Practical Approach, Saunders, Philadelphia, 2010.
2. Flynn W. J., Mathis R. L., Jackson J. H.: Healthcare Human Resource Management, textbook, Cengage Learning, Boston, 2006.
Literature in Serbian:
3. Legetić B.: Principi menadžmenta, udžbenik, Ekonomski fakultet, Subotica, 2007.
4. Marinković Lj: Menadžment u zdravstvenim organizacijama, G.A.D. Beograd, 2001.
5. Mićović P.: Zdravstveni menadžment, Obeležja, Beograd, 2008.
6. Vujić D.: Menadžment ljudskih resursa i kvalitet, Centar za primenjenu psihologiju društva psihologa Srbije, Beograd, 2003.
7. Probbins S., Judge T.: Organizaciono ponašanje, Mate, Zagreb, 2009.
8. Frančesko M.: Kako unaprediti menadžment u preduzeću, Novi Sad, Prometej, 2003.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching: lectures, practical exercises, workshop, discussion, simulation, case studies from practice, e-learning.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

HYGIENE WITH THE BASICS OF MICROBIOLOGY AND PARASITOLOGY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Hygiene with the Basics of Microbiology and Parasitology**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, second semester
ECTS:	5
Requirement:	no

Course objective:
Acquisition of knowledge on health care training process as a measure of health protection at all levels, familiarization with principles, objectives and methods of application of health care educational measures and impact on change of risky behavior of individual, family and community. Development of interest of student in his/her permanent professional and general education, that its, training of health care professional in risk management in health care institutions. Familiarization with cell organization and main characteristics of bacteria, viruses and parasites.

Course outcome:
Students acquire practical knowledge on professional competencies within their profession, on the analysis and management of risk in health care institutions regarding hygiene and protection of health of medical professionals and beneficiaries of health care services at all levels of health protection. Additionally, upon completion of the course and passing of the exam, the student will be familiar with cellular organization and basic characteristics of bacteria, viruses, and parasites.

Course content:
Lectures
Hygiene and health; hygiene requirements in planning and construction of health care institutions; illumination, ventilation and heating in health care institutions; air quality in health care institutions; water and health; health safety of drinking water; water supply of health care institutions; disinfection of drinking water; disposal of solid and liquid waste; disposal of medical waste; personal hygiene of health care professionals: hand hygiene and personal protection substances; hygiene procedures in maintaining hygiene of sick persons; hygienic-epidemiologically adequate solutions of sanitary area; hygienically adequate treatment of hospital laundry; hygienic requirements for kitchens and food distribution; application of HACCP system in food and drinking water handling; international and Serbian legislation in the area of food and general use objects safety; risk management in health care institutions; determining critical spots in health care institutions; epidemiological importance of defining critical spots and critical spot control plan in health care institutions; disease prevention; widely applicable international and national legislation on food safety; carrying out health care educational intervention – professional nurse in the health care system; general bacteriology; microorganism classification, anatomy and physiology of bacterial cell, bacteria metabolism, action of physical and chemical agents on microorganisms; pathogenecity and virulence factors, antibiotics, antimycotics and chemotherapeutics, physiological importance of microflora, rapid diagnostic tests and molecular methods in microbiology; general and special virusology: general features of viruses, action of physical and chemical agents on viruses; pathogenesis and control of virus infections, interferons and antiviral drugs, laboratory diagnostics, DNA and RNA and viruses of importance for human pathology; parasitology.
Exercises
Planning hygienic requirements for health care institutions. Presentation of test results and air quality evaluation. Air sampling methods in health care institutions. Presentation of test results and evaluation of health safety of water. Disinfection of drinking water. Drinking water sampling methods. Environmentally adequate disposal of medical waste. Preparation for seminar paper: monitoring personal hygiene of health care professionals. Presentation of seminar paper in the area of monitoring personal hygiene of health care professionals. Drawing up HACCP system for kitchens in health care institutions. Determining critical spots in health care institutions. Demonstration of health care institution functioning in terms of hygienic requirements – field visit. Demonstration of functioning of microbiology institution and involvement in microbiological analysis.

Literature:
Literature in English:

1. Weston D.: Infection Prevention and Control: Theory and Practice for Healthcare Professionals, John Wiley & Sons, New York, 2008.
2. Andersen B. M.: Prevention and Control of Infections in Hospitals, textbook, Practice and Theory, Springer, Berlin, 2016.
3. Tortora Gerard J., Funke Berdell R., Case Christine L.: Microbiology: An Introduction, textbook, Books a la Carte Edition, Benjamin Cummings, New York, 2009.

Literature in Serbian:

4. Novaković B., Grujić V.: Higijena i zdravstveno vaspitanje, udžbenik, Medicinski fakultet, Novi Sad, 2005.
5. Kekuš D.: Zdravstveno vaspitanje, udžbenik, Digital art, Beograd, 2009.
6. Kristoforović-Ilić M.: Higijena sa medicinskom ekologijom, udžbenik, Ortomedics, 2003.
7. Baračkov N., Bujak J., Ilić D., Jović S., Panić M. i sar.: Vaspitanje za zdravlje kroz životne veštine, Ministarstvo prosvete i sporta Republike Srbije, 2007.

Number of classes:

Theoretical	Theoretical	Professional practice	Study research work	Other forms of teaching

lectures	exercises			(individual work with student, projects…)
30	30	330	0	0
Methods of teaching: lectures, practical classes, discussion, problem-solving, clinical practice.				
Grading (maximum 100 points)				
Pre-Exam obligations		**Points**	**Final Exam**	**Points**
Lecture attendance		3	Exam	40
Activity		7		
Projects/Seminars		0		
Exercises/professional practice		20		
Colloquiums		30		

INTENSIVE CARE UNIT NURSING

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Intensive Care Unit Nursing**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, sixth semester
ECTS:	5
Requirement:	Basics of Nursing

Course objective:
Primary objectives are the adoption of current theoretical and practical (resourcefulness) specialist knowledge in the area of intensive care nursing of critically ill/injured patients and training in the application of the acquired knowledge both in professional and research work. Development of critical thinking, independence in nursing, carrying out diagnostic and therapy procedures, development of team work ability.

Course outcome:
Student will be able to describe clinical conditions in which it is necessary to carry out multidisciplinary nursing and how to nurse patients in certain clinical conditions.

Course content:
Lectures
Airway: evaluation, maintenance, enabling air passage. Breathing: adequacy assessment, ventilator support. Circulation: adequacy assessment, circulatory support. Numerical systems for evaluation of condition of a critically ill/injured person. Cardiocirculatory arrest. Postresuscitation disease. Brain death. Intensive care unit nursing of patients with acute circulatory disorders: cardiogenic, circular, cellular shock. Intensive care unit nursing of patients with acute respiratory system disorders. Acute asphyxiation. Intensive care unit nursing of patients with acute cardiac function disorders. Intensive care unit nursing of patients with central nervous system disorders. Coma. Intensive care unit nursing of acutely intoxicated patients. Intensive care unit nursing of traumatized patients. Intensive care unit nursing of patients with burns. Specific features of intensive care unit nursing in pediatrics. Intensive care unit nursing of patients after transplantation: Early rehabilitation in intensive care therapy unit.
Exercises
Pre-hospital/hospital approach to critically ill/injured person. Airway. Breathing and artificial ventilator support. Circulation and circulatory support. Basics of volume substitution treatment. Basics of pharmacology in vital function support. Measures of cardiopulmonary-cerebral resuscitation. Electrical defibrillation and cardioversion. Pediatric measures. Intensive care unit in surgical ward. Intensive care unit in cardiology; intensive care unit in pediatric ward.

Literature:
Literature in English:
1. Smith-Gabai H.: Occupational Therapy in Acute Care, AOTA Press, Maryland, 2011.
Literature in Serbian:
2. Pavlović A.: Kardiopulmonalna reanimacija, Obeležja, 2007.
3. Spasojević I., Zdravstvena nega u jedinici intenzivne nege, interne skripte.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	120	0	0

Methods of teaching:
lectures, practical exercises, case study, discussion, e-learning, clinical practice.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

INTERNAL MEDICINE PATIENT NURISNG

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Internal Medicine Patient Nurisng**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, fourth semester
ECTS:	7
Requirement:	Basics of Nursing, Basics of Internal Medicine

Course objective:
Adoption of current theoretical and practical specialist knowledge in internal medicine and nursing of internal-medicine patients and training in application of the acquired knowledge in specific situations with internal-medicine patients.

Course outcome:
Upon the completion of the course students will be trained in individual and team work in recognition of cardiovascular, pulmonary, renal, endocrine, gastroenterology, hematologic and oncologic diseases.

Subjects content:
Lectures
Specific features of nursing in heart rhythm, pacemaker implantation and electrophysiology ward; diagnostics, therapy and prevention of artery hypertension; specific features of nursing in cardiology wards; prevention, diagnostics and treatment coronary disease risk factors; diagnostics and treatment of acute coronary syndrome; specific features of nursing in pulmonary wards; specific features of nursing in hematology wards; nursing and care of patients with hemorrhagic syndrome; nursing and care of immunocompromised patients; specific features of nursing in gastroenterology wards; preparation of patients for endoscopy diagnostic procedures; specific features of nursing in endocrinology wards; insulin therapy regimes; diabetic foot nursing; specific features of nursing in nephrology and immunology wards; specific features of nursing in dialysis wards; conducting peritoneal dialysis.
Exercises
Specific features of nursing in heart rhythm, pacemaker implantation and electrophysiology ward. Diagnostics, therapy and prevention of artery hypertension; specific features of nursing in cardiology wards. Prevention, diagnostics and treatment coronary disease risk factors. Diagnostics and treatment of acute coronary syndrome. Specific features of nursing in pulmonary wards. Specific features of nursing in hematology wards. Nursing and care of patients with hemorrhagic syndrome. Nursing and care of immunocompromised patients. Specific features of nursing in gastroenterology wards. Preparation of patients for endoscopy diagnostic procedures. Specific features of nursing in endocrinology wards. Insulin therapy regimes. Diabetic foot nursing. Specific features of nursing in nephrology and immunology wards. Specific features of nursing in dialysis wards. Conducting peritoneal dialysis.

Literature:
Literature in English:
1. Kasper D., Fauci A., Hauser S., Longo D.: Harrison's Principles of Internal Medicine, McGraw-Hill, New York, 2015.

Literature in Serbian:
2. Kopitović I.: Interna medicina za studente zdravstvene nege, udžbenik, Medicinski fakultet, Novi Sad, 2015.
3. Krstić, M.: Interna medicina, udžbenik, Medicinski fakultet Beograd, Zavod za udžbenike, Beograd, 2009.
4. Manojlović D. i dr.: Interna medicina I, II udžbenik, Zavod za udžbenike i nastavna sredstva, Beograd, 2003.
5. Manojlović S.: Hitna stanja u internoj medicini, udžbenik, Zavod za udžbenike, Beograd, 2011.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	360	0	0

Methods of teaching:
lectures using various video materials, exercises, case studies, discussion, dummy exercises, and clinical practice.

Grading (maximum 100 points)

Pre-Exam obligation	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

MARKETING OF HEALTH CARE INSTITUTIONS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Marketing of Health Care Institutions**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, second semester
ECTS:	5
Requirement:	no

Course objective:
Students acquire basic knowledge in the area of marketing in health care, get familiar with modern methods of marketing strategies and manner of communication in health care marketing. Accordingly, the primary course objective is to familiarize students with the genesis and goal of various areas of strategic marketing, including its dominant theories, which is necessary for successful development of activities. Students will also acquire knowledge on notions of marketing campaign, marketing plan designing and principal methods used in marketing of health care institutions, governmental bodies, or for the purpose of certain public campaigns and initiatives.

Course outcome:
Upon the completion of the course, students will be able to understand strategic marketing in health care and be capable to independently conduct research of marketing methods convenient for solution of a specific project task in terms of health care institutions, governmental bodies, or in terms of public campaigns or initiatives. Students will also be competent to evaluate relevant theories of strategic marketing in different empirical contexts and to understand interconnection between marketing strategy, operative-organizational parts of enterprises and market results. Students will understand how to manage marketing campaign, notion of marketing plan designing and primary methods used in marketing.

Course content:
Lectures
Nature and character of marketing; evolution of marketing and approaches in studying it. Marketing management process; changes of marketing in health care institutions, government or governmental bodies. Presentation and analysis of marketing in health care. Marketing information system and market research; market analysis. Market segmentation and selection of targeted markets. Notion of public perception; importance of marketing in health care in strategic marketing: Market research; SWOT analysis, benchmarking and portfolio. BCG matrix.integrated marketing communications; promotional health campaigns; prevention, promotion of public health and marketing (examples of campaigns in Serbia or in the region: campaigns against smoking, diabetes, self-check promotions for breast cancer....). Value chain and cost efficiency; general principles of marketing (marketing mix, models, methods and marketing techniques). Designing promotional campaign plan; targeting; following post-marketing campaign. Medical marketing practice code; general marketing and targeted marketing campaigns. Different types of marketing materials in health care, depending on the target audience. Marketing outsourcing, marketing agencies; printed material, printed media, billboards, electronic media, social networks. Direct marketing; fairs, conferences, meetings; public events, health festivals. Sponsorships. Website; promotional material; presentation; marketing and PR. Public appearances of employees, health care institution management, governmental bodies. Marketing in crisis or emergency situations. Public appearances of employees. Dress code. Appearance of employees, institution.
Exercises
Analysis and discussion on practical examples of marketing campaigns – workshops. Market segmentation and research; SWOT analysis, benchmarking and portfolio. Designing promotional campaign plans in health care – workshop on a given topic in health care. Analysis of examples of marketing campaigns in Serbia examples of workshops (e-learning, analysis of existing initiatives and public events) and globally, workshops, e-learning, internet searching. Marketing in health care in Serbia – workshop. Designing promotional campaign plan on a given topic in health care, targeting, marketing mix, marketing models, methods and techniques - workshop. Printed material, printed media, billboards, electronic media, social networks - conceiving material on given topic in health care, with a focus on the target group type. Direct marketing - simulation. Fairs, conferences, meetings, public events - workshop. Sponsorships. Website - workshop. Promotional material - workshop. Presentation; marketing and PR. Public appearance of employees. Dress code - visit. Appearance of employees, institution. Visits from business community (marketing or PR manager of health care institution, marketing or PR manager of a business organization).

Literature:
Literature in English:
1. Berkowitz N. E.: Essentials of Health Care Marketing, textbook, Jones & Bartlett Learning, Boston, 2010.
Literature in Serbian:
2. Kotler P.: Upravljanje marketingom, udžbenik, Mate, Zagreb, 2017.
3. Macura P.: Marketing – mikro, mala i srednja preduzeća, udžbenik, Ekonomski fakultet, Banja Luka, 2009.
4. Tasić Lj.: Farmaceutski menadžment i marketing, Nauka, Beograd, 2002.
5. Ljubojević Č. Ćirić M.: Marketing usluga, Novi Sad, 2017.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0
Methods of teaching: lectures, discussions, case study, workshop, visiting lectures of representatives of business community (marketing or PR manager of a health care institution, marketing or PR manager of business organization), exercises, e-learning.				
Grading (maximum 100 points)				
Pre-Exam obligations		**Points**	**Final Exam**	**Points**
Lecture attendance		3	Exam	40
Activity		7		
Projects/Seminars		0		
Exercises/Professional practice		20		
Colloquiums		30		

MEDICAL AND PHARMACEUTICAL WASTE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Medical and Pharmaceutical Waste**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
Acquiring knowledge in the field of medical and pharmaceutical waste management, risk assessment methods, particularly the risk of infectious waste, and training students to independently or as part of teams to carry out the identification and classification (categorization) of medical and pharmaceutical waste, and to use data on its categorization for the development and implementation of Waste Management Plan.

Course outcome:
Acquisition of knowledge and skills to manage medical waste, in particular hazardous medical waste, and competence of professional staff to train medical staff, review the circumstances and accomplish waste management plans in health care and other institutions in Serbia.

Course content:
Lectures
Medical waste, infectious, pharmaceutical, chemical, pathoanatomical and radioactive waste; creation of waste; waste flows in health care and other institutions; quantity assessment and risks; classification, collection, marking, storage, treatment and disposal of medical waste; modern methods of treatment and disposal of medical waste in the world and in our country; principles of waste management; place and role of the person in charge of medical waste management in health care, as well as other institutions that generate such waste; national legal regulations, recommendations and good practice in the countries of the European Union; drawing up the Waste Management Plan.
Exercises
Visit to medical biochemical laboratory, microbiological laboratory, blood transfusion institute, outpatient clinic, clinical centre, clinical centre infectious clinic; analysis of the work in real life circumstances; case studies, discussion; good practice in the EU countries.

Literature:
Literature in English:
1. Landrum V. J.: Medical Waste Management and Disposal, Elseiver, London, 2001.
Literature in Serbian:
2. Tošović S. i sar.: Bezbedno upravljanje medicinskim otpadom, Nacionalni vodič dobre prakse, Ministarstvo zdravlja RS, Beograd, 2009.
3. Matović V., Đukić M., Antonijević B.: Praktikum iz kliničko-toksikoloških analiza, Paragon, Beograd, 2005.
4. Zakon o upravljanju otpadom, Sl. glasnik RS 36/09.
5. Direktiva o opasnom otpadu 91/689/EES.
6. Okvirna Direktiva o otpadu 75/442/EES.
7. Jokanović M.: Toksikologija, udžbenik, udžbenik, Elit Medica, Beograd, 2001.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises with anatomical and histological specimens, use of atlases, video projections, computer animations, and simulations of physiological processes.

Grading (maximum 100 points)

Pre-Exam obligation	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	30		
Colloquiums	30		

MEDICAL GENETICS AND MOLECULAR BIOLOGY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Medical Genetics and Molecular Biology**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, third semester
ECTS:	5
Requirement:	no

Course objective:
Introducing students to fundamental knowledge about the cell, with a particular emphasis on the importance of genetic factors in its functioning. The aim of the course is to provide students with a more in-depth understanding of the latest findings in the field of the molecular and functional organization of the cell, as well as to familiarize them with the basic techniques used in its study.

Course outcome:
Upon completion of the course, the student should be able to master the technique of microscopy, describe and explain the structure and function of the cell as the basic unit of organism structure, understand the organization of processes in the cytoplasm and nucleus of the cell, describe and explain the transfer of information from the DNA molecule, through RNA, to proteins, understand and explain the mechanisms of genetic material (genotype) mutation, and connect these changes with the corresponding phenotype. After completing the course, students should understand the principles underlying modern research in the field of molecular cell biology and be capable of applying the acquired knowledge in their future research work.

Course content:
Lectures
Research methodology in cell biology and genetics. Fundamental characteristics of eukaryotic cells. Chemical composition of the cell and metabolism. Organization of eukaryotic cells. The genetic basis and its function. Structural changes in genes and chromosomes. The cell cycle and cell death. Gametogenesis, fertilization, and developmental biology. Gene and chromosomal mutations. DNA and gene expression. Mechanisms of DNA repair. Immunobiology. Oncogenetics. Molecular basis of human diseases. Pharmacogenomics. Origin and evolution of the cell's genetic systems. Folding, processing, distribution, regulation of functionality, variability, degradation, and formation of new types of proteins. Molecular, structural, and functional correlation between cellular components: cell membrane, cytoskeleton, organelles, nucleus, chromatin. Extracellular matrix and intercellular communication. Nuclear architecture (nuclear matrix, nuclear compartments, chromosomal territories) and its role in genome expression. Evolutionary changes in genome organization. The human genome. Signal reception and transduction in the cell: signaling molecules and their receptors, intracellular signaling pathways, signaling pathway interactions, selectivity and specificity of bidirectional transport between the cytoplasm and nucleus. Constitutive, inducible, tissue-specific, and time-specific gene expression. Regulation of gene expression at transcriptional, post-transcriptional, and post-translational levels. Families of transcription factors, their roles, and mechanisms regulating their activity. Structural modifications of regulatory proteins: phosphorylation, glycosylation, ADP-ribosylation, sumoylation, ubiquitination. Regulation of the cell cycle. Cell proliferation during development and differentiation. Programmed cell death – apoptosis. Basic principles of genetic engineering, applications, and cloning.
Exercises
Microscope and microscopy. Size and shape of cells and nuclei, embryonic origin of cells. Plasma membrane. Cytoplasmic organelles. Interphase nucleus, chromatin. Cell division: mitosis and meiosis. Transcription and translation. Chromosomal aberrations and gene mutations. Practical instruction is organized in the form of experimental and demonstrative audio-visual exercises. Introduction of students to the latest techniques in molecular biology.

Literature:
Literature in English:
1. Alberts B.: Molecular Biology of the Cell, Garland Science, New York, 2008.
2. Nussbaum R. L., McInnes R. R., Willard H. F.: Genetics in Medicine, Saunders, Philadelphia, 2007.
3. Lodish H., Berk A., Zipursky S. L., Matsudaira P., Baltimore D., Darnell J.: Molecular Cell Biology, W. H. Freeman& Co., New York, 2003.
Literature in Serbian:
4. Diklić V., Kosanović M., Dukić S., Nikoliš J.: Biologija sa humanom genetikom, udžbenik, Grafopan, Beograd,2001.
5. Kovačević Z. L.: Biohemija i molekularna biologija, udžbenik, Medicinski fakultet, Novi Sad, 2002.
6. Tripeni P., Elard S.: Emerijevi osnovi medicinske genetike, Data Status, Beograd, 2009.
7. Hristić M., Potparević B.: Praktikum iz biologije sa humanom genetikom, Farmaceutski fakultet, Beograd, 2005.
8. Đelić N., Stanimirović Z.: Principi genetike, Elit Medica, Beograd, 2004.

Number of classes:

Lectures	**Exercises**	**Other forms of teaching** (individual work with student, projects...)	**Study research work**	**Other classes** (professional practice...)
30	30	0	0	0

Methods of teaching: interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.			
Grading (maximum 100 points)			
Pre-Exam commitment	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

MEDICAL REHABILITATION

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Medical Rehabilitation**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, fifth semester
ECTS:	5
Requirement:	no

Course objective:
Adoption of principles, ideas and philosophy of modern rehabilitation of sick and injured persons by applying all necessary measures and procedures aimed at a maximum possible recovery, return to living and working environment, resocialization and inclusion into family and society through holistic and individualized approach and interdisciplinary collaboration within rehabilitation team.

Course outcome:
By applying the adopted principles and philosophy of modern rehabilitation, through holistic considering of psychophysical-social integrity and individualization in the approach to sick or injured persons and by identifying their specific needs, students will be able to determine application of all required measures and procedures for successful accomplishment of the goal in the process of their recovery, resocialization and reintegration through inclusion into family and society by applying a possible primary, secondary and tertiary prevention of disability.

Subjects content:
Lectures
Impacts of the living and working environment on psychophysical-social integrity of person; notion, importance and essence of rehabilitation of sick and injured persons; disability; idea, philosophy and development of rehabilitation; modern concept of rehabilitation; medicine-rehabilitation relationship; rehabilitation division; ethics and deontology; principles of rehabilitation; side effects and indication; holistic approach; individualization in approach; multidisciplinary approach, team work; specific features of disability by age – childhood and adolescence, productive age, retirement age; physical, psychical and social aspects of disability; disability and society; classifications and models: medical, social, inclusive; physical and social barriers; discrimination in family and society; accessibility; handicap; medical rehabilitation; methodology – physical medicine in rehabilitation; aids; adaptations and modifications of living, working and public environment; education; working ability evaluation; professional rehabilitation.
Exercises
Ethical and deontological principles. Attitude to profession, patient, disabled person. Familiarization with the organization of work of rehabilitation institution. Preparation for contact with patient. Introduction into medical documentation. Principles of rehabilitation. Holistic approach. Individualization in approach; professional attitude; team work; tasks of team therapist. Team therapist documentation. Familiarization with work of other team members. Coordination. Rehabilitation plan and program. Handicap condition evaluation. Architectural-technical and social barriers. Accessibility. Continuous motion chain. Everyday activities. Adaptation of living, working and public environment. Aids. Evaluation of ability to work. Pre-professional rehabilitation. Familiarization with disabled persons association. Direct contact with persons with disabilities, members of associations.

Literature:
Literature in English:
1. Shatzer M.: Physical Medicine and Rehabilitation, textbook, LWW, Liverpool, 2012.
2. Weiss L., Lenaburg H., Weiss J.: Physical Medicine and Rehabilitation, textbook, Demos Medical, London, 2017.
3. Gonzales E.: Physiological Basis of Rehabilitation Medicine, Butterworth Heinemann, Boston, 2001.
Literature in Serbian:
4. Nedvidek B.: Osnovi fizikalne medicine i rehabilitacije, udžbenik, Medicinski fkultet, 2003.
5. Konjikušić V., Kocev N.: Zdravstvena nega u procesu rehabilitacije, autorsko izdanje, Beograd, 2005.
6. Jovanović Sretenović T.: Praktikum iz Osnovi rehabilitacije, Visoka zdravstvena škola strukovnih studija, Beograd, 2012.
7. Vesović Potić V.: Osnovi fizikalne medicine i rehabilitacije, udžbenik za studente medicine, Medicinski fakultet, Beograd, 2009.
8. Mihajlović V.: Osnovi fizikalne medicine, Medicinska knjiga, Beograd, 2012.
9. Savić K., Mikov A.: Rehabilitacija dece i omladine, Orto Medics, Novi Sad, 2007.
10. Howard R.: Rehabilitacija, Savez društva defektologa Jugoslavije, Beograd, 2001.
11. Delin A.: U susret osobama sa invaliditetom, Britanski savet, Beograd, 2008.
12. Playforth S.: Upoznavanje osoba sa invaliditetom, Britanski savet, Beograd, 2008.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)

30	30	150	0	0
Methods of teaching: interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.				
Grading (maximum 100 points)				
Pre-Exam obligations		**Points**	**Final Exam**	**Points**
Lecture attendance		3	Exam	30
Activity		7		
Projects/Seminars		0		
Exercises/professional practice		40		
Colloquiums		20		

MENTAL HYGIENE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Mental Hygiene**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, fifth semester
ECTS:	5
Requirement:	no

Course objective:
Students are trained to perceive phenomena of mental health and mental illness from a wider, multidisciplinary and multidimensional aspect, to assume responsible tasks in protection and improvement of mental health in their work within community, as well as to take care of sick persons against use of high technology and preserve human relationships in institutions and patients homes.

Course outcome:
Adoption of knowledge and mastering skills in evaluation, monitoring, creating and carrying out therapy communication with health protection beneficiaries – persons with mental health issues, members of their families and healthy members of the community.

Subjects content:
Lectures
Subject and theoretical fundamentals of mental health; prevention of mental disorders; mental health of the entire human life cycle: birth and childhood; adolescence; adulthood; old age; modern life problems: alienation; living in urban environment; living in rural environment; nutrition issues; physical activities; life crises; sickness and disablement in family; stress and burn-out syndrome; emergencies; refugees, armed conflicts; natural disasters; posttraumatic conditions; social pathology and maladaptive behavior; extramarital status; LGBT population; domestic violence; violence against women; violence against old people; alcoholism; drug-addiction; prostitution; religious sects; pathological gambling; suicidality; new forms of addiction; approach to person from mental-hygiene aspect: health and sickness; dying and death; dehumanization and humanization of relations; communication in health care profession; comprehensive protection of mental health.
Exercises
Following theoretical classes. Case studies. Visits of representatives from relevant associations. Drawing up seminar papers. Devising conceptual project plans relating to current issues. Visit of a genuine representative of a marginalized group. Analysis of projects (city, provincial, republic) dealing with marginalized groups of people in the country. Visits of members of aid providing associations (victims of armed conflicts, natural disasters, etc.).

Literature:
Literature in English:

1. Bell G. E.: The Good Book of Mental Hygiene, Resource Publications, Borston, 2020.
2. Glen A.: Mental Hygiene: How To Change Your Mind, CreateSpace Independent Publishing Platform, London, 2018.
3. Tria G. E., Gaerlan J. E., Limpingco D. A.: Principles of Mental Hygiene, Pantas Publishing & Printing, Roterdam, 2010.

Literature in Serbian:

4. Simić M., Kovačević K.: Mentalna higijena, udžbenik, autorsko izdanje, Beograd, 2004.
5. Kaličanin P. i sar.: Stres, zdravlje, bolest, udžbenik, Obeležja, Beograd, 2007.
6. Berger D.: Zdravstvena psihologija, Društvo psihologa Srbije, Centar za primarnu psihologiju, Beograd, 2002.
7. Havelka M. i sar..: Zdravstvena psihologija, Naklada Slap, Jastrebarsko, 2002.
8. Nikolić D.: Bolesti zavisnosti, Narodna knjiga-Alfa, Beograd, 2007.
9. Stanković Z., Begović D.: Alkoholizam od prve do poslednje čaše, Kreativni centar, Beograd, 2005.

Number of classes (per semester):

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, exercises, workshop, discussion, seminar paper.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/seminar papers	0		
Exercise/professional practice	20		
Colloquiums	30		

NUTRITIONISM

Study programme:	Nursing
Type and level of studies: undergraduate professional studies	
Course:	**Nutritionism**
Language of the studies:	Serbian
Status of the course:	elective
Semester:	second year, third semester
No. of ECTS credits:	5
Requirement:	no

Objective of the course:
The objective of the course is the acquisition of knowledge on the structure, importance, physiological action and recommended consumption of nutritious food and how to select and combine food as a source of nutritious substances; they are to be explained the concept of adequate nutrition and to be familiarized with specific features of nutritional needs of certain groups of people according to their age, intensity of everyday body activity, body mass, genetic predispositions, possible pathological conditions etc., as well as to present them current trends of healthy food.

Course outcome:
Upon the successfully completed course students will possess the knowledge of the structure, importance, physiological action and recommended consumption of nutritious food and how to select and combine food as a source of nutritious substances, and thy will be able to explain the concept of adequate nutrition and specific features of nutritional needs of certain groups of people according to their age, intensity of everyday body activity, body mass, genetic predispositions, possible pathological conditions etc.

Course content:
Lectures
Historical development of food and food science; basic types of nutritional components; proteins; carbohydrates; lipids; vitamins; minerals; energy and nutritional needs of people and their dependence on external and internal factors; principles of adequate nutrition; healthy food trends; functional food; types of food, general classification; the importance of water in nutrition; meat and meat products; milk and dairy products; bread, pastries, pasta and products from cereals; fruit and vegetables; sweets; spices, sauces, gravies etc.; teas; coffee; non-alcoholic beverages, carbonated beverages; beer; wine, strong alcoholic drinks; oriental food; types of nutrition depending on geographic region; ecological farming and growing (organic food); GMO food; nutrition and religion; meat avoiding nutrition regimes, vegetarian nutrition, vegan nutrition; Mediterranean nutrition; nutrition of pregnant women and breast-feeding women; nutrition of pre-school children, elementary school children, adolescents; nutrition of elderly persons; nutritional analysis of meals, possibilities of substitution of high-calorie meals with analogues; diet due to medical reasons, diet aimed at reduction of body mass, positive and negative examples from practice.
Practical classes
Repetition of theory class lessons; basic types of nutritional components – presentation and discussion; types of food – presentation, discussion; organic food – discussion; GMO food – discussion; nutrition and religion – discussion; meat avoiding nutrition regimes, vegetarian nutrition, vegan nutrition – presentation, discussion; Mediterranean food – presentation; nutrition of pregnant women and breast-feeding women – presentation; nutrition of pre-school children, elementary school children, adolescents – presentation; nutrition of elderly persons – discussion; nutritional analysis of meals, possibilities of substitution of high-calorie meals with analogues – workshop; making menu for a certain case – project task; diet due to medical reasons, diet aimed at reduction of body mass, positive and negative examples from practice – workshop, discussion.

Literature:
Literature in English:
1. World Health Organisation: Nutrition, health and developement, World Health Organisation, New York, 2000.
2. Mahan K. L., Escott-Stump S., Raymond J. L.: Krause´s Food and Nutrition Care Process, Elsevier, St. Louis, Missouri, 2012.
Literature in Serbian:
3. Ilić B.: Ishrana i dijetika, Visoka medicinska škola strukovnih studija iz Ćuprije, 2014.
4. Novaković B., Jusupović F.: Ishrana i zdravlje, udžbenik, Medicinski fakultet, Novi Sad, 2014.
5. Alibabić V., Mujić I.: Pravilna prehrana i zdravlje, Veleučilište u Rijeci, Rijeka, 2016.
6. Trbović B., Nikolić M., Banković Paunović S.: Ishrana, udžbenik, Zavod za udžbenike, Beograd, 2014.
7. Smajić A.: Nutricionizam - ishrana stanovništva, Federalno ministarstvo poljoprivrede, vodoprivrede i šumarstva, Sarajevo, BiH, 2017.
8. Modić P.: Upotreba prehrambenih aditiva, Popo-knjiga, Beograd, 2001.
9. Petrovič Malahov G.: Ishrana i hrana, IGP Prometej, Beograd, 2007.

Number of classes:

Lectures	**Exercises**	**Other classes** (professional practice...)	**Study research work**	**Other forms of classes** (individual work with the student, project work, field work...)
30	30	0	0	0

Methods of teaching: interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	exam	30
Activity	7		
Project/seminar paper	0		
Exercises / professional practice	30		
Colloquims	30		

ORGANIZATION OF HEALTH CARE SYSTEMS

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Organization of Health Care Systems**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, second semester
ECTS:	5
Requirement:	no

Course objective:
Course objective is to familiarize students with basics in organization of health care institutions and health care sector, manner of institution management, specific features of decision-making process in health care, motivation and medical team building, characteristics of internal communication in health care institutions, personnel and human resources building up, characteristics of business policy and planning strategy, administrative procedures and change management in health care institutions, mandatory and other forms of health insurance.

Subjects outcome:
Upon completing the course, student will be able to organize medical teams, ensure solid communication within health care institution, efficiently make decisions and manage changes under time pressure and understand systems of mandatory and other forms of health insurance.

Subjects content:
Lectures
Health care system; the role of good communication; health care system and health care institution management; the role of manager, difference between commanding and leadership; employment policy and schedule; introduction process, interview and integration of new employees; training; health care institution organization; primary, secondary and tertiary health protection; types of health care institutions; Law on Health care Protection; principles of health protection; protection of population from infectious diseases; chamber of medical practitioners; administration bodies in charge of health care; inspection supervision.
Exercises
Discussion on organization of health care processes, health care institutions and health insurance. Analysis of practice in Serbia and abroad. Analysis of practical examples in the sphere of environment protection. Analysis and practical examples in the sphere of smoking and alcohol ban.Analysis and discussion; living environment, air protection. Analysis and discussion; process of waste removal from health care institutions.

Literature:
Literature in English:
1. Beik Janet I.: Health Insurance Today: A Practical Approach, Saunders, Philadelphia, 2010.
2. Mossialos E., Permanand G., Baeten R., Hervey T.: Health Systems Governance in Europe: The Role of European Union Law and Policy, textbook, Cambridge University Press, 2010.
3. Morrisey M. A.: Health Insurance, textbook, Health Administration Press, London, 2007.
Literature in Serbian:
4. Ranković-Vasiljević R., Stojanović-Jovanović B., Terzić-Marković D.: Metodika i organizacija zdravstvene nege, Visoka zdravstvena škola strukovnih studija, Beograd, 2015.
5. Milović Lj.: Organizacija zdravstvene nege sa menadžmentom, udžbenik, Naučna knjiga, Beograd, 2004.
6. Tijanić M. i sar.: Zdravstvena nega i savremeno sestrinstvo, Naučna knjiga, Beograd, 2010.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, workshop, case study, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	Points	Final Exam	Points
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

PATHOPHYSIOLOGY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Pathophysiology**
Language of instruction:	English, Serbian
Subjects status:	mandatory
Semester:	second year, third semester
ECTS:	6
Requirement:	Anatomy and Physiology segment 1 (General Pathophysiology: theoretical + practical exam) is a condition for segment 2 (Special Pathophysiology: theoretical + practical exam)

Course objective:
Acquisition of knowledge on cell tissue and organ damaging mechanisms and familiarization of students with morphological alterations underlying diseases, ability to recognize morphological alterations on cells, tissues and organs, enabling students to get to know etiology, pathogenesis and clinical manifestations of most important metabolic disorders and functional disorders of organs and organ systems, causes and mechanisms of cell malignant transformation, as well as characteristic of tumor growth and changes it causes in organism.

Course outcome:
Upon the completion of the course students have a command of basic medical terminology and are able to adequately present medically relevant facts, understand etiology and pathogenesis of principal metabolic and functional disorders of human organs and organ systems. They are able to connect their clinical manifestations with causes and mechanisms of their appearance and have a basic pathobiological knowledge enabling them to understand mechanisms of chemical agents and drug action, as well as a diagnostic strategy in case of pathological occurrences at a level required for competent carrying out of their duties.

Course content:
Lectures
Adaptation, growing old, death of cell; morphological changes in cell; acute and chronic inflammation etiopathogenesis; malignant cell transformation and its growth; water and electrolyte transport disorder; acid-base disorders; etiopathogenesis; undernutrition, obesity, diabetes mellitus, artherosclerosis, cardiovascular system function disorder, respiratory system function disorder, renal function disorder, nervous system function disorder, endocrine gland and neuroendocrine regulation function disorder, digestive system disorder, blood composition and function disorder, skin function disorder.
Exercises
Cell injury and cell death. Inflammation etiopathogenesis. Malignant transformation of cell and its growth. Water, sodium and potassium transport disorder. Calcium, magnesium and phosphate metabolism disorders. Etiopathogenesis of diabetes mellitus, artherosclerosis, acid-base. Disorders of cardiovascular, respiratory system, renal function, nervous function, endocrine gland and neuroendocrine regulation function, digestive tract and liver, blood composition and function.

Literature:
Literature in English:
1. Huether S. E.: Understanding Pathophysiology, Elsevier, London, 2011.
2. Nolan A.: Pathophysiology: Step By Step Guide for Nursing, textbook, London, 2020.
3. Banasik J. L.: Pathophysiology, textbook, Saunders, New York, 2018.
Literature in Serbian:
4. Radić S.: Opšta patofiziologija, udžbenik, Medicinski fakultet, Niš, 2012.
5. Beleslin B.: Specijalna patološka fiziologija, Beograd, 2008.
6. Babić Lj., Borota R., Lučić A.: Priručnik praktičnih i seminarskih vežbi iz patološke fiziologije, Medicinski fakultet, Novi Sad, 2007.
7. Ubavić M.: Patološka fiziologija, interne skripte, ICEPS, 2017.
8. Gamulin M., Marušić M., Kovač Z.: Patofiziologija, udžbenik, Medicinska naklada, Zagreb, 2005.
9. Maličević Ž. i sar.: Osnovi patološke fiziologije, udžbenik, Panevropski univerzitet Apeiron, Banja Luka, 2009.
10. Živančević-Simonović S.: Opšta patološka fiziologija, udžbenik, Medicinski fakultet, Kragujevac, 2002.
11. Đorđević-Denić G. i sar.: Specijalna patološka fiziologija, udžbenik, Zavod za izdavanje udžbenika, Beograd, 2003.
12. Kovač Z., Gamulin S. i sar.: Patofiziologija, Zadaci za problemske seminare, Medicinska naklada, Zagreb, 2006.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
45	30	0	0	0

Methods of teaching:
lectures, practical classes, problem-oriented tasks, case studies, discussion, visits of medical-biochemical laboratory employees.

Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	30		
Colloquiums	30		

PATIENT CARE AT HOME AND PATRONAGE NURSING

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Patient Care at Home and Patronage Nursing**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	third year, fifth semester
ECTS:	8
Requirement:	Basics of Nursing

Course objective:
Training students in organizing and carrying out nurse interventions within nursing of pregnant women, newborns, young children, elderly, frail, injured, or sick individuals in their homes, as well as in participating in medical teams in accordance with modern principles of nursing.

Course outcome:
Students are trained to carry out nurse interventions within medical care at home, including determining the needs, assessment of physical and psychological condition of pregnant women, newborns, young children, elderly, frail, injured, or sick individuals, and carrying out special nursing as required by conditions at home.

Course content:
Lectures
The content of the course enables a more comprehensive understanding the reasons of domiciliary care for pregnant women, newborns, young children, elderly, frail, injured, or sick individuals, as well as rehabilitation procedures required at home; education of their families, volunteers and other persons involved in the treatment and nursing of the frail, sick, or injured individuals; evaluation of physical and psychical condition, carrying out nurse interventions as required by a specific level of nursing.
Exercises
Recognition and importance of assessment of problems and needs of pregnant women, newborns, young children, elderly, frail, injured, or sick individuals. Geriatric evaluation of functional condition. Monitoring health conditions (observation, measuring vital parameters), help in personal hygiene keeping, when moving education of family members and interested volunteers in help and taking care of the frail, injured, or sick individuals, i.e. immobile, semi-mobile, or individuals severely limited in mobility. Prevention of complications in diagnostic and therapeutic procedures. Prevention of complications in diagnostic and therapeutic procedures, with a focus on preventing pressure ulcers in severely immobile individuals. Assessment of physical and psychological condition, carrying out nursing interventions as required by a specific level of nursing. The professional field of work for nurses – individual, family, community. Workshops: Bathing a newborn at home, caring for the umbilical stump, umbilical wound, sensory care, skin care, as well as common issues related to care and feeding. Workshop (demo exercises): birth outside the hospital envirnoment, initial care of the newborn, caring of the mother and child until transport to the maternity ward. Workshop (demo exercises): Specifics of patient home visits during the COVID-19 epidemic. Personal protective equipment for health care professionals (e-learning, searching the Internet). Management of medical documentation, invoicing services, e-perscription.

Literature:
Literature in English:
1. Harris M.: Home Health Care, textbook, Jones & Bartlett Learning, Massachusetts, 2009.
2. McEvan M.: Health Visiting, McHill Publishing, New York, 2002.
Literature in Serbian:
3. Krnić H., Vićovac.Lj.: Kućna nega obolelih i povređenih, Crveni krst Srbije, Beograd, 2008.
4. Bedekovič-Petrovski N.: Rad patronažne sestre, Dom zdravlja Remetinec, Remetinec, 2001.
5. Savezni zavod za zdravstvenu zaštitu Beograd: Priručnik za patronažnu službu SR Srbije, Beograd, 2005.
6. Rajak S., Imbronjev V.: Osnovi zdravstvene nege, udžbenik, Omega MS Pharmacy, Novi Sad, 2016.
7. Marinković R. i sar.: Sestrinske procedure (prevod sa engleskog), Data status, Beograd, 2010.
8. Šarenac D.: Zdravstvena nega starih, udžbenik, autorsko izdanje, Licej, Beograd, 2009.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	150	0	0

Methods of teaching:
lectures using various video materials, exercises, workshops, simulations, discussion, e-learning, clinical practice, field work.

Grading (maximum 100 points)

Pre-Exam obligation	**Points**	**Final Exam**	**Points**
Attendance at lectures	3	Exam	30

Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

PHARMACOLOGY AND DRUG DOSING

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Pharmacology and Drug Dosing**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, fourth semester
ECTS:	5
Requirement:	no

Course objective:
Acquisition of knowledge on drug effect mechanisms on the basis of which information necessary for understanding different effects of drugs is obtained, therapy and side effects of groups of drugs are understood, as well as acquisition of principles of use of drugs in therapy.

Course outcome:
Upon the completion of the course, students are expected to be able to identify mechanisms of different effects of certain groups of drugs, to connect therapy and side effects of certain groups of drugs with their different pharmacologic effects, and to have own critical attitude to drugs.

Course content:
Lectures
Introduction; history of pharmacology; pharmacology division; drug division; general principles and drug development; manner of drug administration; dosing; LADMER (liberation, absorption, distribution, metabolism, elimination and response of organism to administered drug); effects of drugs on organism; type and character of drug effects; drug effect mechanisms; factors affecting drug effects; change of drug effects at second administration; mutual effects of drugs; detrimental drug effects; drug addiction; basics of clinical pharmacology; nonsteroidal anti-inflammatory drugs; antirheumatic drugs modifying the course of rheumatic condition; blood pharmacology: anticoagulant and coagulant drugs; antiaggregation drugs; local and system hemostatics; antianemic drugs; water and electrolytes: fluid compensation agents; parenteral nutrition drugs; respiratory tract pharmacology; cardiovascular system pharmacology, drugs and therapy of peripheral vascular conditions; antilipemic agents; digestive tract pharmacology, immunosuppresives and immunostimulants; vitamin pharmacology; obesity treatment drugs; antimicrobe drug pharmacology; hormone pharmacology, antifungal drugs; antiviral drugs; amebecides; antimalarial drugs; antiparasitic drugs; antiseptics and disinfectants; chemotherapy of malignant diseases.
Exercises:
General principles and drug development. Work with pharmacologic databases on the internet. Drug division. Drug prescribing. Prescription.

Literature:
Literature in English:

1. Nurse Academy: Dosage Calculations for Nursing Students: A Complete Step-by-Step Guide for Quick Drug Dosage Calculation, Dosing Math Tips & Tricks for Students, Nurses, and Paramedics, Kindle Edition, London, 2021.
2. Whalen K.: Lippincott Illustrated Reviews: Pharmacology, Wolters Kluwer Health, London, 2018.
3. Rang H. P., Dale M. M., Ritter J. M., Moore P. K.: Pharmacology, Churchill Livingston, London, 2004.
4. Adams M. P., Holland N.: Pharmacology for Nurses: A Pathophysiologic Approach, textbook, Pearson, New York, 2016.

Literature in Serbian:

5. Đaković Švajcer K.: Osnovi farmakologije, udžbenik, Ortomedics, Novi Sad, 2010.
6. Varagić V., Milošević M.: Farmakologija, udžbenik, Elit Medica, Beograd, 2005.
7. Stanimirović V.: Lek-doza-vreme i pacijent u bolnici, Medicinski fakultet, Kragujevac, 2008.
8. Stanimirović V. i sar.: Farmakoterapijski vodič 4, Agencija za lekove i medicinska sredstva Srbije, 2008.
9. Bukarica-Gojković Lj. i sar.: Praktikum iz farmakologije, Medicinski fakultet, Beograd, 2009.
10. Rang H. P., Dale M. M., Ritter J. M., Moore P. K.: Farmakologija, udžbenik, Data Status, Beograd, 2004.

Number of classes (per semester):

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, exercises, video presentations, demonstrations, workshop, case studies.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Seminar paper	0		
Exercises/professional practice	40		
Colloquiums	20		

PSYCHOLOGY IN NURSING AND HEALTH CARE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Psychology in Nursing and Health Care**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	second year, fourth semester
ECTS:	3
Requirement:	no

Course objective:

Acquisition of knowledge in psychology relating to the patient and his/her relatives at the moment of becoming aware of a health issue, the period of its solving, as well as in case of coping with severe or incurable diseases, their lasting consequences and similar situations. In addition to that, the course objective is to educate students in emotional and psychological states through which a medical professional may go through in the course of his/her work with patients. In addition to that, the objective of the course is for the student to acquire knowledge about the impact of psychological factors and the significance of stress in the development of psychosomatic disorders. They will also gain understanding of coping mechanisms for stress and pain management; as well as acquire knowledge that will enable them to recognize burnout syndrome in real-life professional environments, particularly within the health care sector, along with strategies to overcome it.

Course outcome:

Upon completion of the course and passing the exam, the student will gain knowledge of the psychology of patients and their families in the moment of health issue discovery, during the treatment process, and in uncertain situations. The student will also be trained in certain self-control techniques for managing emotional and psychological reactions they may experience as a health care professional while dealing with patients. Additionally, upon course completion, the student should be able to recognize and understand the health care psychology and theoretical models the course is based on; they should recognize psychological aspects of health and illnesses; to identify different psychological reactions to symptoms, illnesses and the importance of seeking professional help and social support; students will understand the role of stress in the development of psychosomatic illnesses and coping strategies; recognize the role of personal factors in experiencing and managing pain; understand the psychological aspects of severe illnesses and terminal condition; and to comprehend the psychological aspects of hospitalization in patients of different ages.

Course content:

Lectures

Psychology of health and disease; accepting disease as a reality; determination in solving a health issue; psychology of a patient at the moment of becoming aware of his/her health issue and during treatment; psychological states in case of uncertainty, expectations, unexpected treatment, unsuccessful treatment, deterioration in diagnosis; work with patient´s relatives, the role of relatives; support, openness in conversation, panic versus rationality; work with patient´s relatives in case of poor prospects diagnosis, in case of a loss; work with medical professional in case of severe emotional states, patient being nervous, state of shock; social institutions, support of competent services; importance of communication; basics of occupational therapy. pain management; understanding the relation between the patient and health care professional; familiarization with the principles of health care habits development at different ages; the relationship between social support and health; review of models and strategies for promoting health related behaviors aimed at reducing health issues; recognition of burn out symptoms and the adoption of methods to overcome it, especially among those employed in health care.

Exercises

Accepting disease as a reality – workshop. Determination in solving a health issue - workshop. Psychology of a patient at the moment of becoming aware of his/her health issue and during treatment - workshop. Psychological states in case of uncertainty, expectations, unexpected treatment, unsuccessful treatment, deterioration in diagnosis - workshop. Work with patient´s relatives - workshop. Work with medical professional in case of severe emotional states – workshop. Visits from representatives of institutions that provide psychological help to patients and employees (The Society of Psychologists of Serbia, the Institute of Mental Health, or the Psychopolis Institute)

Literature:

Literature in English:

1. Kubler Ross E.: On Death and Dying, Prentice Hall, 2001.
2. Friedman H. S.: Health psychology, textbook, Prentice Hall, 2003.

Literature in Serbian:

3. Havelka M.: Zdravstvena psihologija. udžbenik, Jastrebarsko-Naklada Slap, 2008.
4. Kekuš D.: Komunikacije u profesionalnoj praksi zdravstvenih radnika, Digital Art, Beograd, 2010.
5. Payne S. H., Walker J.: Psihologija u zdravstveni negi, Educy, Ljubljana, 2002.
6. Berger D.: Zdravstvena psihologija, Društvo psihologa Srbije, Centar za primarnu psihologiju, Beograd, 2002.
7. Simić M., Kovačević K.: Mentalna higijena, udžbenik, autorsko izdanje, Beograd, 2004.
8. Milivojević Z.: Emocije, Psihopolis institut, Novi Sad, 2008.
9. Štajner K.: Školovanje srca, Psihopolis institut, Novi Sad, 2007.
10. Bern E.: Koju igru igraš, Beoknjiga, Beograd, 2003.

11. Kekuš D.: Zdravstveno vaspitanje, Digital art, Beograd, 2009.
12. Ranković Vasiljević R.: Metodika i organizacija zdravstvene nege, Viša medicinska škola, Beograd, 2004.
13. Forvard S., Frejžer D.: Emocionalna ucena, Psihopolis institut, Novi Sad, 2011.
14. Haris A. T.: Ja sam OK-ti si OK, Beograd, 2003.
15. Džejms M.: Životni pobednik, Psihopolis institut, Novi Sad, 2008.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
15	30	0	0	0

Methods of teaching:
lectures, exercises, case studies, discussions, e-learning.

Grading (maximum 100 points)

Pre-Exam commitment	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

PUBLIC HEALTH

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Public Health**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	first year, second semester
ECTS:	5
Requirement:	no

Course objective:
The objective of the course is familiarization of students with measures, levels and organization of health care and their training for applying a social-medical approach in future practice, primarily in the field of nursing.

Course outcome:
Upon completion of the course, the students will be familiar with the principles of public health, health care politics, indicators of the population health status, classification systems in health care, and they will understand the functioning of the health care system, especially in the area of nursing, from the perspective of patients, health care professionals, health care institutions, the government, and society.

Course content:
Lectures
The development and definition of social medicine; health and quality of life; social care of health; communication in health care; health protection; social inequalities in health care and obtaining health protection; vulnerable categories; health care policy; criteria for evaluation of socio-medical importance of health issues; methods of prevention and control of chronic non-communicative diseases; health protection systems around the world; health protection programming; the role of health care institutions and health care professionals in the system of health care protection; health care technology; quality of health protection; classification systems in health care; management in health care;
Exercises
The analysis of public health aspects on the quality of life in the country and society. Comparative analysis of segments studied in public health and social medicine. Analysis of solutions to identical or similar situations in countries of the region and the European Union.

Literature:
Literature in English:

1. Mossialos E., Permanand G., Baeten R., Hervey T.: Health systems governance in Europe: the role of European Union law and policy, Cambridge University Press, 2010.
2. Morrisey M. A.: Health Insurance, Health Administration Press, London, 2007.
3. Schneider M. J.: Introduction to Public Health, textbook, Jones-Barlett learning, New York, 2021.
4. Murphy F.: Community Engagement, Organization, and Development for Public Health Practice, Springer Publishing Company, New York, 2004.

Literature in Serbian:

5. Lazarević A. i sar.: Javno zdravlje, socijalna politika i zdravstvena zaštita, udžbenik, Beograd, Visoka zdravstvena škola strukovnih studija, Beograd, 2016.
6. Hojer S.: Pristupi i metode u zdravstvenom odgoju, udžbenik, Koledž zdravlja, Ljubljana, 2005.
7. Lazarević A.: Socijalna medicina, autorsko izdanje, Beograd, 2015.
8. Simić S. i sar.: Socijalna medicina, udžbenik, Medicinski fakultet, Beograd, 2012.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, exercises, discussions, problem solving.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exame	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

QUALITY CONTROL

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Quality Control**
Language of instruction:	English, Serbian
Course status:	mandatory
Semester:	third year, sixth semester
ECTS:	5
Requirement:	no

Courses objective:
The objective of the course is to understand the concept and essence of quality as a market category, to recognize the specific characteristics of quality within a work organization, with special emphasis on the particularities of service in a specific sector, and to become familiar with the basics of institutional organization, methods of institutional management, specificities of decision-making processes, administrative procedures, and change management within the institution. The objective also includes understanding and accepting the concept of standardization and the importance of standards in the process of defining quality.

Course outcome:
After attending and passing the course, the student should be qualified to practically apply internal procedures and standards for the purpose of establishing and controlling the quality of services, to determine and rank quality criteria, to master techniques and methods for measuring and controlling quality, and to evaluate the application of established standards, with a special focus on the type of organization they belong to. Additionally, the student should be trained in how to adopt and implement corrective measures aimed at quality management.

Course content:
Lectures
Quality management: concept, definition of quality, reasons for implementing quality control processes. Characteristics of quality in specific areas (e.g., specifics of quality control in healthcare...), forms and levels of quality manifestation. Quality management systems: definition and development of various quality systems. Service standardization as the basis of quality, areas of standard application, types of standards. Requirements of ISO 9000, ISO 9001, ISO 14000, ISO 22000 standards; implementation of the HACCP system, HALAL standards. The importance of internal procedures within an organization. Management chain. The role of employees in ensuring quality, the importance and role of human resources, the human resource management process. The importance and role of management in achieving quality, managers as quality factors. The role of service users in creating service quality: perception, deviations, satisfaction, methods for measuring service quality. Strategic approach to quality, trends in business orientation of companies, changes in the structure of offerings. Strategic adaptation of services to modern trends: market segmentation, differentiation, positioning, application of modern technologies.
Exercises
Discussion on topics related to institutional organization and quality control processes. Analysis of practical experiences in Serbia and abroad. Visit by a certified ISO evaluator. Visit by a manager from a public or private company that implements quality control effectively. Analysis of practical examples from domestic and foreign, public and private healthcare organizations. Analysis and practical examples from the field of safety. Employee and client safety, discussion.

Literature:
Literature in English:
1. Spath P.: Applying Quality Management in Healthcare: A Systems Approach, textbook, Health Administration Press, Boston, 2017.
2. Morrisey Michael A.: Health Insurance, 1st ed., Health Administration Press, 2007.
3. Swanwick T., Vaux E.: ABC of Quality Improvement in Healthcare, Villey, New York, 2020.
Literature in Serbian:
4. Kancir D., Antić Z.: Menadžment kvaliteta, Beogradska poslovna škola - Visoka škola strukovnih studija, Beograd, 2013.
5. Blešić I.: Menadžment kvaliteta u turizmu i hotelijerstvu, Prirodno-matematički fakultet, Novi Sad, 2017.
6. Legetić B.: Principi menadžmenta, udžbenik, Ekonomski fakultet, Subotica, 2007.
7. Milović Lj.: Organizacija zdravstvene nege sa menadžmentom, udžbenik, Naučna knjiga, Beograd, 2004.
8. Marinković Lj: Menadžment u zdravstvenim organizacijama, G.A.D. Beograd, 2001.
9. Mićović P.: Zdravstveni menadžment, Obeležja, Beograd, 2008.
10. Službeni glasnici Republike Srbije.
11. Grujić V., Martinov Cvejin M., Legetić B.: Menadžment u zdravstvu, udžbenik, Medicinski fakultet, Novi Sad, 2007.
12. Grujić V., Martinov-Cvejin M., Legetić B.: Ekonomika zdravstva, Medicinski fakultet, Novi Sad, 1993.
13.Probbins S., Judge T.: Organizaciono ponašanje, Mate, Zagreb, 2009.

Number of classes:

Theoretical lectures	Theoretical exercises	Professional practice	Study research work	Other forms of teaching (individual work with student, projects…)
30	30	0	0	0

Methods of teaching: lectures, case study, discussion, workshop, e-learning.			
Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

RARE DISEASES

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Rare Diseases**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, fourth semester
ECTS:	5
Requirement:	no

Course objective:
The objective of the course is to acquaint students with the concept and types of rare diseases, the ways in which the health system helps patients with rare diseases, as well as the challenges in this area, in Serbia as well as in the other countries.

Course outcome:
After the course, the student should be acquainted with the concept and types of rare diseases, ways in which the health system can help patients with rare diseases, as well as the challenges that arise in this area, both in Serbia and in other countries.

Course content:
Lectures
The notion of a rare disease; characteristics of rare diseases in Serbia and worldwide; the list of rare diseases and genes affecting their occurrence; the methodology with data on rare diseases in Serbia; burden born by stationary health-care institutions in Serbia, distribution of rare diseases globally; malignant tumors in children; challenges in fighting rare diseases in Serbia and globally, propositions of measures in Serbia; Zoja's Law; NORBS; the list of orphan drugs in all phases of their development, from Europen Medicines Agency labeling relating to medicines for treatment of rare diseases to obtaining permit for the European market; "assistance in diagnosis" option as na option of conducting tests according to disease signs and symptoms; recommendations and guidelines in case of urgent medical intervention and anaesthesia; overview of sites specialized in rare diseases in every country through Orphanet; directions of present research in rare diseases.
Exercises
The notion of a rare disease; characteristics of rare diseases in Serbia and worldwide; Zoja's Law; NORBS – discussion; discussion on rare diseases and challenges faced by patients in Serbia and worldwide.

Literature:
Literature in English:

1. Claudia Gonzaga-Jauregui, James R. Lupski: Genomics of Rare Diseases: Understanding Disease Genetics Using Genomic Approaches, Academic Press, London, 2022.
2. Robert M. Kliegman, Brett J. Bordini: Undiagnosed and Rare Diseases in Critical Care, An Issue of Critical Care Clinics, E-book, 2021.

Literature in Serbian:

3. interni material predavača
4. Ministarstvo zdravlja Republike Srbije: Program za retke bolesti u Republici Srbiji za period 2020-2022. godine: https://www.zdravlje.gov.rs/tekst/343045/program-za-retke-bolesti-i-akcioni-plan.php
5. Ministarstvo zdravlja Republike Srbije: Lista retkih bolesti i gena uključenih u njihov nastanak, kao i enciklopedija retkih bolesti i njihova klasifikacija izvedena iz objavljenih stručnih klasifikacija: https://www.orpha.net/consor/cgi-bin/Disease.php?lng=EN
6. Ministarstvo zdravlja Republike Srbije: Popis „orphan" lekova (lekova siročića), u toku svih faza njihovog razvoja, od oznake Evropske Medinske Agencije koja se odnosi na lekove namenjene lečenju retkih bolesti do dobijanja dozvole za evropsko tržište https://www.orpha.net/consor/cgi-bin/Drugs.php?lng=EN
7. Ministarstvo zdravlja Republike Srbije: Opcija "pomoć pri dijagnozi" omogućava korisnicima pretragu prema znacima i simptomima bolesti https://www.orpha.net/consor/cgi-bin/Disease_HPOTerms.php?lng=EN
8. Ministarstvo zdravlja Republike Srbije: Preporuke i smernice u slučaju hitne medicinske intervencije i anestezije https://www.orpha.net/consor/cgi-bin/Disease_Emergency.php?lng=EN

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam commitments	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40

Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums	30		

RESEARCH METHODOLOGY

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Research Methodology**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, sixth semester
ECTS:	5
Requirement:	no

Course objective:
To equip students with the necessary skills for professional, scientific-research, and bibliographic-research work.

Course outcome:
Possession of necessary knowledge that will enable students to engage in professional, scientific-research, and bibliographic-research work.

Course content:
Lectures
Importance of scientific work. Difference between scientific and professional work. Stages of professional, scientific-research, and bibliographic-research work. Selection of topic and formulating a hypothesis. Selection of research methodology. Literature review. Methods of citing literature. Experiment. Surveys and processing of survey results, data protection. Statistical data processing. Quality of the sample. Objectivity and subjectivity. Result, discussion and conclusion. Structure and writing of professional and scientific work. Types of professional and scientific papers. Valuation of professional and scientific papers. Ways of professional and scientific paper publishing. Citation. Plagiarism. Protection of data. Methodology for preparing seminar and final papers.
Exercises
Techniques of collecting, organizing, and studying literature, as well as citing literature according to prescribed standards. Searching selected electronic databases. Processing research results. Graphical representation of data. Mastery of computer programs for writing and formatting texts (Word – MS Office), correct naming of tables, images, charts, and diagrams. Writing professional and scientific papers. Citing literature. Preparing a seminar paper. Principles of preparing a final paper, familiarizing with the procedure for preparing a final paper, simulation of preparing a final paper.

Literature:
Literature in English:
1. Ebel H. F., Bliefert C., Russey W. E.: The art of scientific writing, Wiley-VCH, Verlag GmbH & Co. KgaA, Weinheim, 2004.
Literature in Serbian:
2. Milankov V., Jakšić P.: Metodologija naučno-istraživačkog rada u biološkim disciplinama, udžbenik, Prirodno-matematički fakultet, Novi Sad, 2006.
3. Šomođi Š., Novković N., Kraljević-Balalić M., Kajari K.: Uvod u naučni rad, udžbenik, Poljoprivredni fakultet, Novi Sad, 2004.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, exercises, discussions, e-learning, workshop, seminar paper, public presentation.

Grading (maximum 100 points)

Pre-Exam commitments	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	40
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	20		
Colloquiums/exam	30		

SPECIALIZED ENGLISH FOR MEDICINE 1

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Specialized English for Medicine 1**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
Course objective is familiarization with characteristics of the English language, adoption of phrases and patterns necessary for communication at professional level and adoption of techniques of written and oral expressing in professional communication.

Course outcome:
Students will be able to apply the acquired knowledge in professional communication, create corresponding written forms in accordance with their professional communication and use speech patterns appropriate to a given situation.

Course content:
Lectures
Grammar: English alphabet, basic reading and writing rules, greeting, personal pronouns, possessive pronouns, present tenses, gender and number of nouns, colors, interrogative and affirmative sentences; aspects of everyday life in English-speaking countries; prepositions with dative and accusative, the imperative, modal verbs, perfect tenses, clause framework; specialist texts in connection with students´ future profession, specialist terminology, examples of commercial, specialist texts from practice; examples of documents students will deal with in practice.
Exercises
Students practice everyday situation dialogues (giving/understanding orientation instructions, retelling happenings, making plans, scheduling meetings, giving descriptions, reporting etc.); understanding texts on everyday life situations (e. g. advertisements), they expand vocabulary relating to their environment, family, job.

Literature:
Literature in English:
1. Evans V., Dooley J., Tran T. M.: Career Paths, Medical Book 1, udžbenik, Express Publishing, Berkshire, 2018.
2. MacLean J.: English in Basic Medical Science, Oxford University Press, Oxford, 2000.
3. Murphy R.: English Grammar in Use, Cambridge University Press, Cambridge, 2014.
4. McCarthy M., O'Dell F.: English Vocabulary in Use, Cambridge University Press, Cambridge, 2006.
5. Hornby A.S.: Oxford Advanced Learner's Dictionary of Current English, Oxford Unversity Press, Oxford, 2008.

Literature in Serbian:
6. Dragović R.: Engleski za zdravstvene radnike, udžbenik, Naučna knjiga, Beograd, 2004.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises, communication, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Seminar paper	0		
Exercises/professional practice	40		
Colloquiums	20		

SPECIALIZED ENGLISH FOR MEDICINE 2

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Specialized English for Medicine 2**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, third semester
ECTS:	5
Requirement:	Specialized English for Medicine 1

Course objective:
Course objective is familiarization with characteristics of the English language, adoption of phrases and patterns necessary for communication at professional level and adoption of techniques of written and oral expressing in professional communication.

Course outcome:
Students will be able to apply the acquired knowledge in professional communication, create corresponding written forms in accordance with their professional communication and use speech patterns appropriate to a given situation.

Course content:
Lectures
Grammar: comparison of adjectives; causal clauses, future tense, preterite, conditional sentences, verbs of movement, active and passive voice; aspects of everyday life in English speaking countries: holiday, family life, education, life in city; relative clauses, verbs with prepositions, adjective forming suffixes and prefixes, deepening knowledge on dependent clauses; everyday life, business life and media in English speaking countries; specialist terminology relevant for students´ future profession, grammatically and linguistically more complex texts; work material corresponding to everyday practice at work.
Exercises
Students practice how to express themselves orally and in writing on everyday life topics, such as free time, job, media, fashion, politics; they practice shorter discussions and stating their opinion, asking others on their views and pointing to opposite aspects of different views.

Literature:
Literature in English:
1. Evans V., Dooley J., Tran T. M.: Career Paths, Medical Book 1, udžbenik, Express Publishing, Berkshire, 2018.
2. MacLean J.: English in Basic Medical Science, Oxford University Press, Oxford, 2000.
3. Murphy R.: English Grammar in Use, Cambridge University Press, Cambridge, 2014.
4. McCarthy M., O'Dell F.: English Vocabulary in Use, Cambridge University Press, Cambridge, 2006.
5. Hornby A.S.: Oxford Advanced Learner's Dictionary of Current English, Oxford University Pres, Oxford, 2008.
Literature in Serbian:
6. Dragović R.: Engleski za zdravstvene radnike, udžbenik, Naučna knjiga, Beograd, 2004.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises, communication, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

SPECIALIZED GERMAN FOR MEDICINE 1

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Specialized German for Medicine 1**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	first year, first semester
ECTS:	5
Requirement:	no

Course objective:
The aim of the course is to improve a range of language knowledge, abilities, and skills, with a particular focus on business, so that students can independently interpret specialized texts, communicate competently in a business context, and write short texts in German on their own.

Course outcome:
The student acquires the vocabulary of general and business language, is aware of the diversity of linguistic means and actively applies them in both general and business contexts; reviews and deepens knowledge across all levels of language structure (phonetics, morphology, syntax, semantics); develops all language skills (reading, listening, writing, speaking); uses acquired knowledge for further independent language learning; develops sociolinguistic and strategic competence; independently uses printed and electronic dictionaries; and masters economic technical terminology through thematic texts and other materials from courses attended during their studies.

Course content:
Lectures:
Grammar: personal pronouns; present tense; question words (W-Fragen); definite and indefinite articles; modal verbs in the present tense; imperative; possessive pronouns; time prepositions; preterite (sein, haben); polite forms (würde, könnte); comparison of adjectives. Text analysis in German: introductions and self-presentation in various situations, numbers and telling time, daily work-related activities, restaurant situations with business partners, company visits and relationships with business partners, business trips and their organization (booking tickets, accommodation, purchasing appropriate clothing), navigating the city, inviting, canceling, or postponing business meetings. Interpreting data from timetables, road maps, company charts, classified ads, and manufacturers' offers. Selection of texts in accordance with the chosen module – group work.
Exercises:
Practicing grammatical structures of the German language through speaking situations and acquiring specific vocabulary. Developing all language skills (reading, writing, speaking, understanding written and spoken texts). Simulating conversations on covered topics – workshop. Presenting a company, its activities and organization – workshop. Selection of texts in accordance with the chosen module – group work

Literature :
Literature in German:

1. Pude E. A., Specht F.: Menschen, Deutsch als Fremdsprache Kursbuch mit DVD-ROM, udžbenik, Hueber Verlag, Munchen, 2012.
2. Loibl B. et all.: Schritte Plus im Beruf, Kommunikation am Arbeitsplatz, Max Hueber Verlag, Ismaning, 2015.
3. Becker N., Braunert J.: Alltag, Beruf, Kursbuch+Arbeitsbuch, Max Hueber Verlag, Ismaning, 2009.
4. Becker N., Braunert J., Schlenker W.: Unternehmen Deutsch Grundkurs. Kursbuch, Klett Verlag, Stuttgart, 2005.
5. Becker N., Braunert J.: Unternehmen Deutsch Grundkurs, Arbeitsbuch, KlettVerlag, Stuttgart, 2004.
6. Grammatik - Ganz klar Übungsgrammatik A1-B1, uz audio materijal, Hueber Verlag, 2011.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises, communication, e-learning.

Grading (maximum 100 points)

Pre-Exam obligation	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exrcises/professional practice	40		
Colloquiums	20		

SPECIALIZED GERMAN FOR MEDICINE 2

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Specialized German for Medicine 2**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	second year, third semester
ECTS:	5
Requirement:	Specialized German for Medicine 1

Course objective:
The objective of the course is the further improvement of language knowledge, abilities, and skills, with a particular focus on business topics, at a higher level compared to Specialized German for Medicine 1 (previous course).

Course outcome:
The student continues to acquire vocabulary of general and business language and actively applies it in both general and business contexts, at a higher level than in Specialized German for Medicine 1 (previous course). The course includes revision and deepening of knowledge across all levels of language structure (phonetics, morphology, syntax, semantics) and further development of the language skills: reading, listening, writing, and speaking. Mastery of professional terminology through theme-based texts that are more complex than those in the previous course.

Course content:
Lectures
Grammar at a higher level than in Specialized German Language 1 for Medicine (previous course): personal pronouns in dative and accusative, preterite of modal verbs, perfect tense, prepositions of place and distinction between dative and accusative, irregular comparison of adjectives, word order in subordinate clauses. Analysis of German-language texts that are grammatically and lexically more complex than in the previous course. Selection of texts according to the chosen module – group work. Analysis of business texts in German from real companies. Analysis of business texts from the internet. Analysis of business texts in German from the German press. Listening to news broadcasts (daily news) in German. Presentation of companies and hierarchical structure. Presentation of companies and products. Hotel reservations and appointment scheduling, contacts at congresses, events, meetings, trade fairs. Product promotion. Formulating inquiries, offers, orders, complaints, and written responses to the above. Interpreting job advertisements, writing CVs, résumés, and job applications.
Exercises
Practice of German grammatical structures covered in theoretical instruction: reading, writing, speaking, understanding written and spoken texts. Selection of texts that are more complex than in the previous course. Simulation of conversations on the covered topics – workshop. Selection of texts according to the chosen module – group work.

Literature :
Literature in German:

1. Pude E. A., Specht F.: Menschen, Deutsch als Fremdsprache Kursbuch mit DVD-ROM, udžbenik, Hueber Verlag, Munchen, 2012.
2. Loibl B. et all.: Schritte Plus im Beruf, Kommunikation am Arbeitsplatz, Max Hueber Verlag, Ismaning, 2015.
3. Becker N., Braunert J.: Alltag, Beruf, Kursbuch+Arbeitsbuch, Max Hueber Verlag, Ismaning, 2009.
4. Becker N., Braunert J., Schlenker W.: Unternehmen Deutsch Grundkurs. Kursbuch, Klett Verlag, Stuttgart, 2005.
5. Becker N., Braunert J.: Unternehmen Deutsch Grundkurs, Arbeitsbuch, KlettVerlag, Stuttgart, 2004.
6. Grammatik - Ganz klar Übungsgrammatik A1-B1, uz audio materijal, Hueber Verlag, 2011.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
lectures, practical exercises, communication, e-learning.

Grading (maximum 100 points)

Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		

SPORTS MEDICINE

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Sports Medicine**
Language of instruction:	English, Serbian
Course status:	elective
Semester:	third year, sixth semester
ECTS:	5
Requirement:	no

Course objective:
Acquisition of knowledge on the specificity of etiology, pathogenesis, course, prognosis, prevention, and treatment of sports injuries from the perspective of physiotherapy. Familiarization of students with the basics of sports physiology and sports medicine, as well as how organs and organ systems function in a heightened, altered regime of psychophysical exertion.

Course outcome:
Upon the completion of the course and passing of the exam, the student will master the general principles and rules of behavior in the sports laboratory, he/she will be familiarized with the basic laboratory procedures for functional testing and possess skills in conducting laboratory tests. The student will be familiarized in detail with the methods of blood and urine collection and preparation, as well as the basic laboratory analyses of blood and urine used in sports medicine practice. In addition to that, the student will master basic electrophysiological methods, gain experience in performing registrations, he/she will be able to identify basic registered parameters, independently measure arterial blood pressure, conduct heart auscultation, determine respiratory volumes, oxygen consumption capacities, and perform similar tasks.

Course content:
Lectures
Physiatric diagnostics, assessment, plan and program of physiotherapy within the treatment and rehabilitation of acute, endogenous, exogenous sports injuries, soft tissues (contusions, sprains, ruptures of muscle-tendon tissues and ligament-capsular lesions), and the musculoskeletal system of endogenous chronic sports injuries (overuse syndromes), postoperative procedures within sports medicine (arthroscopic interventions and invasive orthopedic-surgical interventions); neuromuscular junction; Mediators and basic mechanisms of synaptic transmission; Muscle classification; Morphophysiological characteristics of skeletal straited muscles; Contraction of skeletal straited muscles; Motor unit; Muscle tone and thermogenesis; Work, strength, and muscle fatigue; Physical aspects of human work (force, strength, work); Smooth muscles; Properties of gases; Ventilation; Lung volumes and capacity; Gas transport to cells; Main and accessory respiratory muscles; Intrapleural pressure; Regulation of respiration; Types and patterns of breathing; Respiration under reduced and increased atmospheric pressure conditions; Blood plasma; Erythrocytes; Leukocytes; Immunity and immune bodies; Platelets; Blood clotting and hemostasis; Blood groups; Transfusion and transplantation; Functional division of the circulatory system; Morphofunctional characteristics of cardiac muscle; Cardiac hemodynamics; The heart conduction system; Athlete's heart; Registration and analysis of electrocardiograms; Regulation of cardiac muscle function; Exchange at the capillary level; Peripheral circulation; Pulse: definition, types, and characteristics; Venous circulation; Lymphatic flow; Neurohumoral mechanisms of vascular tone regulation; Structural and energetic role of nutrients, energy sources in the human body; Anabolism and catabolism; Minerals and vitamins; Methods of studying energy metabolism, energy storage; Respiratory quotient; Glycogen supercompensation; Lactic acid; Basal metabolism; Energy metabolism under load; Composition of daily dietary meals; Regulation of acid-base balance; Chemical and physiological buffers; Regulation of glycemia; Regulation of calcium levels in the body; Regulation of protein metabolism (impact of physical activity on anabolic processes in the body); Membrane potential; Action potential; Laws of irritation; Neuron; Division of synapses in the CNS; Neurotransmitters; Reflex function; Basal ganglia and formation of dynamic stereotypes; Cerebellum, vestibular system, proprioception, and the role of balance; Tactile and thermal reception; Visceral reception; Olfactory and taste reception; Pain reception; Hypothalamus; Limbic brain structures; Cerebral cortex: Sleep; Learning and memory; Consciousness; Energy capacities and their measurement, „Steady state"; Sports training and types of training; Stress theory, stress phases, stressor; The role of sports and recreation according to modern functional systems theory in the reception and adaptation of the body to harmful stress effects; Overtraining syndrome and its implications on athletes' functional abilities, occurrence of injuries; Chronobiology and its significance in sports.
Exercises
Testing functional abilities (selection of functional tests, selection of load type). Determining aerobic capacity (measuring maximum oxygen consumption), anaerobic test, maximum strength, average strength, explosive strength, fatigue index; determining oxygen debt and oxygen deficit. Determining steady state (test selection, heart rate monitoring , monitoring of respiratory parameters, monitoring of oxygen consumption). Determining the heart rate (palpation, auscultation, monitoring heart rate via ECG). Measuring arterial blood pressure (monitoring of arterial blood pressure at rest, monitoring of arterial blood pressure during functional tests). Dynamometry (familiarization with equipment and basic parameters of muscle strength dynamometry testing, testing hand flexor strength, testing hand extensor strength, testing leg extensor strength). Body composition analysis - basic anthropometric measurements (basic instruments - scale, pelvimeter, sliding caliper, caliper, measuring tape); determination of BMI; establishment of somatotype, calculation of constitution according to Heath-Carter; determination of body fat mass using bioelectrical impedance method.

Literature:

Literature in English:
1. Costill D, Wilmore J.: Physiology of Sport and Exercise, Human Kinetics, Ravena Press, London, 2015.

Literature in Serbian:
2. Grujić N.: Fiziologija sporta, udžbenik, Futura, Petrovaradin, 2000.
3. Pećina M. i sar.: Sportska medicina, udžbenik, Medicinski fakultet, Zagreb, 2003.
4. Banović D.: Povrede u sportu, udžbenik, Draslar partner, Beograd, 2006.
5. Barak O. i sar.: Praktikum iz fiziologije sporta, Futura, Petrovaradin, 2006.
6. Nikolić Ž.: Fizikalna terapija lokomotronog aparata, Zavod za izdavanje udžbenika i nastavnih sredstava, Beograd, 2002.
7. Pećina M.: Sindromi prenaprezanja sustava za kretanje , Globus, Zagreb, 2006.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
30	30	0	0	0

Methods of teaching:
interactive classes, demonstration, practical exercises, analysis of examples from practice, case studies, discussion, e-learning.

Grading (maximum 100 points)

Pre-Exam commitments	**Points**	**Final Exam**	**Points**
Lecture attendance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums/exam	20		

SURGICAL PATIENT NURSING

Study program:	Nursing
Type and level of study:	undergraduate professional studies
Course:	**Surgical Patient Nursing**
Language of instruction:	English, Serbian
Subjects status:	mandatory
Semester:	third year, sixth semester
ECTS:	8
Requirement:	Basics of Nursing, Basics of Surgery with Orthopedics

Course objective:
Acquisition of theoretical knowledge and skills in taking care of patients in all surgical branches.

Course outcome:
Students will be able to practically apply the acquired knowledge in all surgical disciplines necessary to acquire skills in taking care of surgical patients from an aspect of nursing, preceded by mastering practical knowledge and skills in nursing surgical patients.

Course content:
Lectures
Application of aseptic and antiseptic principles in daily surgical practice; Sepsis as a complication in surgical patients; Theoretical foundations: nursing of patients with surgical diseases of the digestive and endocrine systems, diseases of the locomotor system, surgical diseases and injuries of blood and lymphatic vessels, patients with burns, patients with surgical diseases and injuries of the genitourinary tract, patients with surgical diseases and injuries of the chest and lungs, patients with surgical diseases and injuries of the central and peripheral nervous system, patients with surgical diseases and injuries of the heart, patients with malignant diseases, pediatric surgical patients (basics), patients after organ transplantation; principles of organization and work in the operating room; principles of semi-intensive and intensive care of surgical patients; definition of anesthesia and resuscitation, types of anesthesia and monitoring of surgical patients, management of patients intraoperatively and postoperatively; etiopathogenesis, classification, and staging of malignant diseases; possibilities, principles, and modalities of treatment and nursing in oncological surgery.
Exercises
Familiarization with the organization of work in the operating room. Principles and organization of work in the operating room. Familiarization with the organization of semi-intensive and intensive care of surgical patients. Application of aseptic and antiseptic principles in daily surgical practice. Concept of anesthesia and resuscitation, types of anesthesia and monitoring of surgical patients, management of patients intraoperatively and postoperatively. nursing of patients with surgical diseases of the digestive and endocrine systems, patients with diseases of the locomotor system, patients with surgical diseases and injuries of blood and lymphatic vessels, patients with burns, patients with surgical diseases and injuries of the genitourinary tract, patients with surgical diseases and injuries of the chest and lungs, patients with surgical diseases and injuries of the central and peripheral nervous system, patients with surgical diseases and injuries of the heart, patients with malignant diseases, patients after organ transplantation.

Literature:
Literature in English:

1. Lewis L.S., Dirksen S.R., Heitkemper M.M., Bucher L.: Medical Surgical Nursing: Assessment and Management of Clinical Problems, textbook, Toronto, 2011.
2. Pudner R: Nursing the Surgical Patient, Elsevier, 2005.
3. Norton J., P.S. Barie, R.R. Bollinger, A.E. Chang, S. Lowry, S.J. Mulvihill, H.I. Pass, R.W. Thompson: Surgery: Basic Science and Clinical Evidence, Springer Publishing Company, New York, 2008.

Literature in Serbian:

4. Maksimović Ž.: Hirurgija, udžbenik, CIBID, Beograd, 2008.
5. Dragović M.: Ambulantna hirurgija, Velarta, Beograd, 2006.
6. Terzić N.: Zdravstvena nega u hirurgiji, Finegraf, Beograd, 2013.
7. Stoiljković J.: Zdravstvena nega u hirurgiji, Altera Books, Beograd, 2014.
8. Glišić R.: Zdravstvena nega u hirurgiji, Cicero, Beograd, 2011.
9. Stevović M. i sar.: Hirurgija za studente i lekare, Savremena administracija, Beograd, 2000.
10. Stevović D. i sar.: Hirurgija, udžbenik, Savremena administracija, 2001.
11. Domazet N: Hirurgija sa ortopedijom i traumatologijom, udžbenik, Beograd, 1996.

Number of classes:

Theoretical lectures	**Theoretical exercises**	**Professional practice**	**Study research work**	**Other forms of teaching** (individual work with student, projects…)
60	60	330	0	0

Methods of teaching:
lectures using various video materials, exercises, discussion, dummy exercises, and clinical practice.

Grading (maximum 100 points)			
Pre-Exam obligations	**Points**	**Final Exam**	**Points**
Lecture assistance	3	Exam	30
Activity	7		
Projects/Seminars	0		
Exercises/professional practice	40		
Colloquiums	20		