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E-learning courses for Midwife, General Nurse, Physiotherapy and Occupational Therapy

Faculty:	Faculty of Health Studies
Course title:	Nursing Care in Obstetrics I.
Course code:	KPAS/PP1P9
Level of course:	bachelor
ECTS:	3
Teacher:	Doc. MUDr. Blanka Vavřinková, CSc.
Term:	summer
Language of instruction:	English

Faculty:	Faculty of Health Studies
Course title:	Nursing Care in Neonatology
Course code:	KPAS/PNEP9
Level of course:	bachelor
ECTS:	2
Teacher:	MUDr. Martin Pánek
Term:	summer
Language of instruction:	English

Faculty:	Faculty of Health Studies
Course title:	Biomechanics of the movement – practical use of instruments
Course code:	KF/BMER
Level of course:	bachelor
ECTS:	5
Teacher:	Mgr. Marek Jelínek, Ph.D.
Term:	winter, summer
Language of instruction:	English

Faculty:	Faculty of Health Studies
Course title:	Selected chapters from biophysics and biomechanics – part 1
Course code:	KFE/BI1ER
Level of course:	bachelor
ECTS:	5
Teacher:	Ing. Martin Svoboda, Ph.D.
Term:	winter, summer
Language of instruction:	English

Faculty:	Faculty of Health Studies
Course title:	Selected chapters from biophysics and biomechanics – part 2
Course code:	KFE/BI2ER
Level of course:	bachelor
ECTS:	5
Teacher:	Ing. Martin Svoboda, Ph.D.
Term:	winter, summer
Language of instruction:	English

Faculty:	Faculty of Health Studies
Course title:	Myofascial syndrome – triggerpoints therapy
Course code:	KF/MYOFS

Level of course:	bachelor
ECTS:	5
Teacher:	Mgr. Marek Jelínek, Ph.D.
Term:	winter, summer
Language of instruction:	English

Faculty:	Faculty of Health Studies
Course title:	The examination and therapy of the pelvis and spine according to
	Prof. Lewit
Course code:	KE/EXTL
Level of course:	bachelor
ECTS:	5
Teacher:	Mgr. Marek Jelínek, Ph.D.
Term:	winter, summer
Language of instruction:	English

MIDWIFE

Winter Term

Faculty:	Faculty of Health Studies
Course title:	Professional Conversation in English
Course code:	KPAS/ AJP9
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Hana Vohradská
Term:	Winter
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	written test and oral exam
Course goal:	The course includes all important parts of language training: oral and written language manifestation, text understanding, reading and pronunciation training, special vocabulary training covering the following topics:
Content:	Seminar Topics: 1. week: Nursing as a Profession 2. week: The Types of Nursing Positions 3. week: Midwifery 4. week: Reproductive System 5. week: Reproductive System 5. week: Pregnancy 6. week: Normal Human Childbirth 7. week: Childbirth Complications 8. week: Nurse-Patient Communication

Faculty:	Faculty of Health Studies
Course title:	Professional Conversation in German
Course code:	KPAS/ NJP9
Level of course:	bachelor
ECTS:	2
Teacher:	– Mgr. Vratislava Postlová, Ph.D.
Term:	Winter
Language of instruction:	German
Lectures/exercises:	0/2
Requirements on	written test and oral exam
student:	
Course goal:	The course includes studying of a foreign language for intermediate students with the focus on professional language in health care. The aim is skill development enabling professional communication, reading and understanding of foreign special tests. Students will work with Czech and international professional publications and they will be able to communicate in a foreign language environment.
Content:	Seminar Topics: 1. week: Schwangerschaftsvorsorge I. 2. week: Schwangerschaftsvorsorge II. 3. week: Geburt I. 4. week: Geburt II. 5. week: Wochenbett 6. week: Stillen 7. week: Deutschland vs. Tschechien 8. week: Praktisches Vokabular
Faculty:	Faculty of Health Studies
Course title:	Nursing Care in Gynaecology I
Course code:	KPAS/ PG1P9
Level of course:	bachelor
ECTS:	3
Teacher:	MUDr. Martina Pražáková
Term:	winter
Language of instruction:	English
Lectures/exercises:	2/0
Requirements on	Obligatory presence at the seminars, passing controlling tests, a project
student:	assignment on a given nursing topic, an oral exam.
Course goal:	The subject is designed as a theoretical and practical unit for the birth assistants who are taking care of a woman throughout her life. The subject is a part of a complex set of basic specialized subjects for the field of midwifery which provides the students with the latest knowledge and information from the clinical field of gynaecology. The focus is put on the primary prevention which is an important part of the work of a birth assistant to care after the health of women of all ages being healthy and ill. The subject covers those pathophysiological states which are the most important for the quality of a female life. Nursing care is being taught in a form of a nursing process regarding the individuality of each woman. It follows the knowledge of clinical gynaecology, urogynaecology, oncogynaecology, gynaecology in childhood. The aim of the subject is to develop the skill to apply the knowledge in a real contact with women.
Content:	Lecture Topics: 1. week: The life periods of a woman, the development of female genitals and their defects 2. week: Vulva, vagina, pelvic bottom, cervix, uterus 3. week: Oviducts, ovaries, breast 4. week: Menstruation and ovulation cycle, neurohumoral regulation of the menstruation and ovulation cycle 5. week: The disorders of the menstruation cycle 6. week: Examination methods in gynaecology 7. week: Urogynaecology 8. week: Nonvirulent tumors of female genitals 9.

week: Malignant tumours of female genitals (cervix, the body of the uterus, oviduct) 10. week: Malignant tumours of female genitals (vulva, vagina, ovarium, breasts) 11. week: Inflammation disorders of the reproductive organs, endometriosis 12. week: Climacterium 13. week: Anticonception, a planned parenthood 14. week: Irregular positions of female genitals 15. week: Basic operation techniques in gynaecology

Faculty:	Faculty of Health Studies
Course title:	General and Developmental Psychology
Course code:	KPAS/ PSP9
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on	written test
student:	
Course goal:	Subject creates the basis for other psychological disciplines. It introduces the students with psychology application in the field of nursing and care, the rules of spiritual life, the behaviour and the discourse of an individual with the dynamics and structure of a character. The aim is also to teach basic terminology and problems of general psychology and methodological approaches.
Content:	Lecture Topics: 1. week: The subject and tasks of general psychology. Determination of a human psyche 2. week: Reception, imagination, fantasy 3. week: Thinking and speech 4. week: Intelligence, mental retardation 5. week: Memory, attention 6. week: Emotions 7. week: Motivational processes, needs and their satisfaction 8. week: Stances, character 9. week: Personality typology 10. week: Psychological methods and their application in nursing training 11. week: Prenatal period, a new- born, a baby, a toddler 12. week: Pre-school and younger school age 13. week: Adolescence period 14. week: Adulthood period 15. week: The issues of the elderly

Faculty:	Faculty of Health Studies
Course title:	Public Health Care and Health Protection
Course code:	KPAS/ VZP9
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Olga Jarabicová, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	2/2
Requirements on student:	Obligatory attendance of the lectures, a test with a minimum of 75% passing level, submitting and presentation of a seminar project: the intervention program.
Course goal:	The subject is a topical unit providing the students with the basic knowledge from the fields of epidemiology, hygiene, health education, which is an important part of public health care. It is the knowledge which is necessary for the protection and support of public health; it helps the understanding of the connections between clinical and preventive medicine and midwifery. It also covers the prevention of professional injuries of the medical staff and nosocomial infections.
Content:	Lecture Topics: 1. week: Health, the aspects of health, the determinants of health, health protection and support, the prevention of disorders/diseases/disorders 2. week: International documents about health protection and support. Health 21 3. week: Public health care: the focus, content, segments, realization in training 4. week: The epidemiology of infectious diseases: general facts; epidemiological measures 5. week: The groups of transmissive infections; the examples of infections 6. week: Environment and health; health preventive and protecting measures 7. week: Work environment and health; health protection 8. week: The epidemiology of chronical diseases and their prevention 9. week: Hygiene in medical facilities. Nosocomial infections and their prevention 10. week: Health education: sims, methods and forms 11. week: The activities of a birth assistant in the area of health education Seminar Topics: 1. week: Information: medical education flyer on the topic 5. week: Personal hygiene and hand washing of a medical staff 6. week: Laundry operations in a medical facility 7. week: Trash and garbage operations in a medical facility 8. week: The evaluation of health risks, work and protection of health categorization for a medical staff 9. week: Disinfection and sterilization 10. week: The presentation of seminar project

Faculty:	Faculty of Health Studies
Course title:	Practical bio-statistics
Course code:	KFE / 1PBS
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	exam
Course goal:	Analysis of bio-statistical data using specialized SW.
Content:	 Statistical analysis can be provided by more or less specialized SW. The free product "R" is used in this course. Students first learn how to manage the data. Then the basic descriptive characteristics are performed and the classical analytical statistical tools employed to test and to model dependencies among variables. The course is taught in English. Preliminary theoretical knowledge of statistics is not required. The course ends with the practical analysis of bio-statistical data. 1. FW R-project. Downloading, basic principles, menus, help. 2. R-project. Inserting, re-calculating and saving the data. 3. Types of variables. Categorical variable – frequencies. 4. Continuous variable – quantile and moment characteristics. 5. Computer testing with the use of p-values. 6. Categorical variables – bivariate contingency tables, chi2-test of independency. 7. Continuous variables – t-tests. 8. Analysis of variance (ANOVA) – models and tests. 9. Regression models (1) – simple regression and correlation. 10. Regression models (2) – multiple regression. 11. Time series – description, models and forecasting. 12. Cluster analysis (distance measures, k-means clustering). 13. Survival analysis (survival function, tests, Cox regression).

Faculty:	Faculty of Health Studies
Course title:	Principles of bio-research
Course code:	KFE / 1PBR
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on	exam
student:	
Course goal:	Basic principles of scientific research with an emphasis on healthcare science
Content:	 The aim of the course is to introduce the basic principles of scientific research to students to enable them to carry out independently all the essential steps at the level required for their thesis as well as other future scientific activities, mainly in the field of healthcare sciences. The course is taught in English. The course ends with an oral exam. 1. Basic and applied research. Steps of the research project. 2. Research and search. Ethical aspects of bio-research (informed consent). 3. Clinical trials – types and examples (database ClinicalTrials.gov, EudraCT). 4. Clinical studies – types and examples (case report, case-control, cohort study). 5. Statistical survey – types and examples. 6. Statistical units, population parameters, statistical sample, representativeness. 7. Construction of questionnaire – types of variables (qualitative,
	 Construction of questionnaire – types of variables (qualitative, quantitative, scales). Interpretation of descriptive characteristics (frequencies, moments, quantiles). Visualization of statistical results (tables, graphs). Principles of statistical testing (research and statistical hypothesis, p-value). Citations versus plagiarism.
	 Scientific journal database on internet (SCOPUS). Impact factor. Database Web of Science.

Summer Term

Faculty:	Faculty of Health Studies
Course title:	Nursing care in gynaecology II.
Course code:	KPAS/ PG2P9
Level of course:	bachelor
ECTS:	3
Teacher:	Mudr. Martina Pražáková
Term:	summer
Language of instruction:	English
Lectures/exercises:	2/0
Requirements on student:	Obligatory seminar attendance, passing controlling tests, a project assignment on a given medical topic, an oral exam.
Course goal:	The subject is designed as a theoretical and practical unit for the birth assistants, who are caring after a woman during her life. The subject is a part of the complex set of basic specialized subjects in the field of midwifery, which introduces the students with the newest facts from the clinical gynaecology. The attention is put on the primary prevention, which is an important role of the birth assistant when caring after a woman during all age periods while being healthy and ill. Regarding the pathophysiological states the subject is focused on those, which are the key for the quality of a female life. The facts from the clinical gynaecology, urogynaecology, oncogynaecology, gynaecology of children are then followed by the nursing care, which is provided by means of a nursing process taking into consideration the individuality of each specific woman. The aim of the subject is to develop the skill to be used in a real contact with women
Content:	1. week: Care after a woman after epidural analgesia 2. week: Care after a woman after laparoscopic operation 3. week: Care after a woman after sectio cesarea 4. week: Care after a woman after a breast operation. 5. week: Care after a woman with endometriosis 6. week: Care after a woman with prolapse of the uterus 7. week: Care after a woman with climacteric syndrome 8. week: Care after a woman with incontinence 9. week: Care after a woman in terminal stadium 10. week: Care after a woman with sudden gynaecological accident

Faculty:	Faculty of Health Studies
Course title:	Psychology in Health Care
Course code:	KPAS/ ZPP9
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Student will get the credit for at least 80% active seminar attendance and for the demonstration of the knowledge covering the issues offered in a written test, the exam will be oral.
Course goal:	The subject is theoretically - practical. It is focused on the issues of psychology of the clients and their families while being healthy and sick. The knowledge of medical psychology will help better understanding of the patients/clients healthy and sick states and better understanding of their needs and problems.
Content:	Lecture Topics: 1. week: Psychological issues of diseases 2. week: Psychosomatic and psychosomatic relations, the auto-plastic view of the disease 3. week: Experiencing disease with time, the patient's attitude to the disease 4. week: The Categories of the disease from the psychological point of view 5. week: Psychological issues of hospitalization, iatropatogenic, sororigeny and egrotogeny 6. week: Professional deformation, the danger of the burn-out syndrome development 7. week: Stress 8. week: The psychology of pain, anxiety, fear and inferiority 9. week: The types of disorders and psychological approaches towards the clients 10. week: Dying and death from the psychological point of view 11. week: The rules of professional behaviour Seminar Topics: 1. week: Productive and non-productive behaviour, medical staff as a client 2. week: Psychotherapy in medical work 3. week: Disease as a difficult life situation 4. week: Communication with the patient 5. week: Productive behaviour and its symptoms 9. week: The issues of the approach towards the clients at the departments: internal, surgery 10. week: The issues of the approach towards the clients at the departments: gynaecology, six -week period, etc . 11. week: Informing about unpleasant news

Faculty:	Faculty of Health Studies
Course title:	Practical bio-statistics
Course code:	KFE / 1PBS
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on	exam
student:	
Course goal:	Analysis of bio-statistical data using specialized SW.
Content:	 Statistical analysis can be provided by more or less specialized SW. The free product "R" is used in this course. Students first learn how to manage the data. Then the basic descriptive characteristics are performed and the classical analytical statistical tools employed to test and to model dependencies among variables. The course is taught in English. Preliminary theoretical knowledge of statistics is not required. The course ends with the practical analysis of bio-statistical data. 1. FW R-project. Downloading, basic principles, menus, help. 2. R-project. Inserting, re-calculating and saving the data. 3. Types of variables. Categorical variable – frequencies. 4. Continuous variable – quantile and moment characteristics. 5. Computer testing with the use of p-values. 6. Categorical variables – bivariate contingency tables, chi2-test of independency. 7. Continuous variables – t-tests. 8. Analysis of variance (ANOVA) – models and tests. 9. Regression models (1) – simple regression and correlation. 10. Regression models (2) – multiple regression. 11. Time series – description, models and forecasting. 12. Cluster analysis (distance measures, k-means clustering). 13. Survival analysis (survival function, tests, Cox regression).

Faculty:	Faculty of Health Studies
Course title:	Principles of bio-research
Course code:	KFE / 1PBR
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on student:	exam
Course goal:	Basic principles of scientific research with an emphasis on healthcare science
Content:	 The aim of the course is to introduce the basic principles of scientific research to students to enable them to carry out independently all the essential steps at the level required for their thesis as well as other future scientific activities, mainly in the field of healthcare sciences. The course is taught in English. The course ends with an oral exam. 1. Basic and applied research. Steps of the research project. 2. Research and search. Ethical aspects of bio-research (informed consent). 3. Clinical trials – types and examples (database ClinicalTrials.gov, EudraCT). 4. Clinical studies – types and examples (case report, case-control, cohort study). 5. Statistical survey – types and examples. 6. Statistical units, population parameters, statistical sample, representativeness. 7. Construction of questionnaire – types of variables (qualitative, quantitative, scales). 8. Interpretation of descriptive characteristics (frequencies, moments, quantiles). 9. Visualization of statistical results (tables, graphs). 10. Principles of statistical testing (research and statistical hypothesis, p-value). 11. Citations versus plagiarism.
	 Citations versus plagiarism. Scientific journal database on internet (SCOPUS). Impact factor. Database Web of Science.

GENERAL NURSE

Winter Term

Faculty:	Faculty of Health Studies
Course title:	English language
Course code:	KO/ AJV9
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Hana Vohradská
Term:	summer
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on	the subject requires high school level of language to enrol; final oral testing
student:	based on the set of the topics
Course goal:	Summary: Subject includes all important parts of language education: oral and written language manifestation, text understanding, pronunciation and reading practice, general vocabulary covering the following topics:
Content:	Seminar Topics: 1. week: Describing Yourself 2. week: Professional Life and Career 3. week: Job Interview 4. week: Future Plans 5. week: Making Phone Calls 6. week: Formal Letters 7. week: Social English 8. week: Free Time 9. week: University Studies

Faculty:	Faculty of Health Studies
Course title:	German language
Course code:	KO/ NJV9
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Vratislava Postlová, Ph.D.
Term:	summer
Language of instruction:	German
Lectures/exercises:	0/1
Requirements on	active class participation, passing a written test with 80% success rate
student:	
Course goal:	Subject includes studying foreign language for intermediate students with the focus on professional language in health care. The aim is handling with professional activities, reading and understanding a professional text in a foreign language, knowledge of domestic and foreign professional media. Students will be able to communicate in a foreign professional environment.
Content:	Seminar Topics: 1. week: Geschichte 2. week: Berufsbild 3. week: Kompetenzen 4. week: Ausbildung 5. week: Inhalt 6. week: Schwangerschaftsanzeichen 7. week: Wo entbinden? 8. week: Hausgeburt 9. week: Hausgeburt

Faculty:	Faculty of Health Studies
Course title:	Psychology
Course code:	KO/ PSYV9
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	2/0
Requirements on	written test
student:	
Course goal:	The subject consists of the knowledge covering psychological disciplines: general psychology, personality psychology, development psychology and
	broaden student's understanding of issues of health psychology and social
	psychology. The special focus is put on mental health of women and
	children, including prevention of negative states in the society.
Content:	Lecture Topics: 1. week: Individual socialization. 2. week: Socialization
	mechanisms. 3. week: Socialization agents. 4. week: Social pathological
	phenomena in the society. 5. week: Prevention of social pathological
	phenomena. 6. week: Social group, definition, classification. 7. week:
	Group structure and dynamics. 8. week: Social role and position,
	professional deformation and prevention. 9. week: Family and its
	development. 10. week: Family pathology. 11. week: Addiction issues

Faculty:	Faculty of Health Studies
Course title:	Public Health Care and Health Education
Course code:	KO/ VZV9
Level of course:	bachelor
ECTS:	5
Teacher:	PhDr. Olga Jarabicová, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	2/2
Requirements on student:	Obligatory attendance of the lectures, a test with a minimum of 75% passing level, submitting and presentation of a seminar project: the intervention program.
Course goal:	The subject is a topical unit providing the students with the basic knowledge from the fields of epidemiology, hygiene, health education, which is an important part of public health care. It is the knowledge which is necessary for the protection and support of public health; it helps the understanding of the connections between clinical and preventive medicine and midwifery. It also covers the prevention of professional injuries of the medical staff and nosocomial infections.
Content:	Lecture Topics: 1. week: Health, aspects of health, determinants of health, protection and support of health, prevention of diseases 2. week: International documents about protection and support of health, health 21 3. week: Public health care: the focus, content, segments, realization in training 4. week: Epidemiology of infectious diseases: general issues; epidemiological measures 5. week: Groups of infections based on transmission and the examples of infections 6. week: Environment and health; preventive health protecting measures 7. week: Work environment and health; health protection 8. week: Epidemiology of chronical diseases and their prevention 9. week: Hygiene in medical facilities; nosocomial infections and their prevention 10. week: Health education: goals, methods and forms 11. week: The activities of a a nurse in health education sector Seminar Topics: 1. week: Questionnaire 2. week: Intervention program 3. week: Team work 4. week: Information: a medical-education flyer/leaflet on the topic 5. week: Personal hygiene and hand washing of a medical staff 6. week: Laundry operations in a medical facility 7. week: Dealing with garbage/trash in a medical facility 8. week: Health risks evaluation, categorization of work and health protection of a medical staff 9. week: Disinfection and sterilization 10. week: Presentation of seminar projects 11. week: Presentation of seminar projects

Faculty:	Faculty of Health Studies
Course title:	Practical bio-statistics
Course code:	KFE / 1PBS
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	exam
Course goal:	Analysis of bio-statistical data using specialized SW.
Content:	 Statistical analysis can be provided by more or less specialized SW. The free product "R" is used in this course. Students first learn how to manage the data. Then the basic descriptive characteristics are performed and the classical analytical statistical tools employed to test and to model dependencies among variables. The course is taught in English. Preliminary theoretical knowledge of statistics is not required. The course ends with the practical analysis of bio-statistical data. 1. FW R-project. Downloading, basic principles, menus, help. 2. R-project. Inserting, re-calculating and saving the data. 3. Types of variables. Categorical variable – frequencies. 4. Continuous variable – quantile and moment characteristics. 5. Computer testing with the use of p-values. 6. Categorical variables – bivariate contingency tables, chi2-test of independency. 7. Continuous variables – t-tests. 8. Analysis of variance (ANOVA) – models and tests. 9. Regression models (1) – simple regression and correlation. 10. Regression models (2) – multiple regression. 11. Time series – description, models and forecasting. 12. Cluster analysis (distance measures, k-means clustering). 13. Survival analysis (survival function, tests, Cox regression).

Faculty:	Faculty of Health Studies
Course title:	Principles of bio-research
Course code:	KFE / 1PBR
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on student:	exam
Course goal:	Basic principles of scientific research with an emphasis on healthcare science
Content:	 The aim of the course is to introduce the basic principles of scientific research to students to enable them to carry out independently all the essential steps at the level required for their thesis as well as other future scientific activities, mainly in the field of healthcare sciences. The course is taught in English. The course ends with an oral exam. 1. Basic and applied research. Steps of the research project. 2. Research and search. Ethical aspects of bio-research (informed consent). 3. Clinical trials – types and examples (database ClinicalTrials.gov, EudraCT). 4. Clinical studies – types and examples (case report, case-control, cohort study). 5. Statistical units, population parameters, statistical sample, representativeness. 7. Construction of questionnaire – types of variables (qualitative, quantitative, scales). 8. Interpretation of statistical results (tables, graphs). 10. Principles of statistical testing (research and statistical hypothesis, p-value). 11. Citations versus plagiarism. 12. Scientific journal database on internet (SCOPUS). 13. Impact factor. Database Web of Science.

Faculty:	Faculty of Health Studies
Course title:	Information Systems in Health Care
Course code:	KO/ISV9
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Nela Kubová, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on	Minimum 80% class participation. The credit requirement is also practical
student:	testing (the knowledge and skills of computer work)
Course goal:	The subject teaches the user's and professional approach towards informatics, information technology and the possibilities of its application in health care. It provides basis for using software, text and data processing.
Content:	Seminar Topics: 1. week: Basic IT knowledge: information and its units, HW and SW 2. week: Working rules with the internet, browsers, DNS, viruses and anti-viruses, e-mail. 3. week: E-learning: function and types of e-learning system, approach towards e-learning at the faculty (Moodle) and other faculties with similar focus (MEFANET). 4. week: MS-Office advanced: format copying, Ctrl+H for substituting, PowerPoint (transitions betweens slides, animation application). 5. week: Word: dividing the document into sections and types of page numbering in sections, titles and generating summary, citations and generation of bibliography. 6. week: Excel: Automatic filling of sequences, anchoring of dividers , copying using the lock symbol, sorting the data using several criteria. 7. week: Excel: function =sum, selected text and logical functions, a bar chart, a pie chart, connection chart, point chart and their editing: change of the scale or of naming the axes. 8. week: General principles and trends in E-health, EHR (EPR): electronic health (patient) record, standards (HL7). 9. week: IS in health care and in hospitals (functions, examples), the principles and examples of using telemedicine.

Summer Term

Faculty:	Faculty of Health Studies
Course title:	English language - professional terminology
Course code:	KO/ AJV9
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Hana Vohradská
Term:	summer
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on	Successful passing of the course FOREIGN LANGUAGE (English)
student:	
Course goal:	The course includes all important parts of language education: oral and
	written manifestation, text understanding, reading and pronunciation
	training, professional vocabulary training covering the following topics:
Content:	Seminar Topics:
	1. week: Nursing as a Profession
	2. week: General Nursing
	3. week: Human Body
	4. week: Common Diseases in General Practice
	5. week: Health Examination Procedure
	6. week: Medical Treatment
	7. week: Nurse-Patient Communication

Faculty:	Faculty of Health Studies
Course title:	German language - professional terminology
Course code:	KO/ NJV9
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Vratislava Postlová, Ph.D.
Term:	summer
Language of instruction:	German
Lectures/exercises:	0/1
Requirements on student:	Active class participation, passing a written test with 80% success rate.
Course goal:	The subject includes studying of a foreign language for intermediate students with the focus on professional language in health care. It aims at reading and understanding foreign professional texts to stimulate informing about local and international professional publications. The course will help a student to communicate in foreign language environment.
Content:	Seminar Topics: 1. week: Wiederholung des letzten Semesters 2. week: Vokabular II. 3. week: Unterschiede Deutschland und Tschechien 4. week: Praktische Sprachverwendung I. 5. week: Praktische Sprachverwendung II. 6. week: Vokabular III. 7. week: Praktische Sprachverwendung II

Faculty:	Faculty of Health Studies
Course title:	Practical bio-statistics
Course code:	KFE / 1PBS
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	exam
Course goal:	Analysis of bio-statistical data using specialized SW.
Content:	 Statistical analysis can be provided by more or less specialized SW. The free product "R" is used in this course. Students first learn how to manage the data. Then the basic descriptive characteristics are performed and the classical analytical statistical tools employed to test and to model dependencies among variables. The course is taught in English. Preliminary theoretical knowledge of statistics is not required. The course ends with the practical analysis of bio-statistical data. 1. FW R-project. Downloading, basic principles, menus, help. 2. R-project. Inserting, re-calculating and saving the data. 3. Types of variables. Categorical variable – frequencies. 4. Continuous variable – quantile and moment characteristics. 5. Computer testing with the use of p-values. 6. Categorical variables – bivariate contingency tables, chi2-test of independency. 7. Continuous variables – t-tests. 8. Analysis of variance (ANOVA) – models and tests. 9. Regression models (1) – simple regression and correlation. 10. Regression models (2) – multiple regression. 11. Time series – description, models and forecasting. 12. Cluster analysis (distance measures, k-means clustering). 13. Survival analysis (survival function, tests, Cox regression).

Faculty:	Faculty of Health Studies
Course title:	Principles of bio-research
Course code:	KFE / 1PBR
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on student:	exam
Course goal:	Basic principles of scientific research with an emphasis on healthcare science
Content:	 The aim of the course is to introduce the basic principles of scientific research to students to enable them to carry out independently all the essential steps at the level required for their thesis as well as other future scientific activities, mainly in the field of healthcare sciences. The course is taught in English. The course ends with an oral exam. 1. Basic and applied research. Steps of the research project. 2. Research and search. Ethical aspects of bio-research (informed consent). 3. Clinical trials – types and examples (database ClinicalTrials.gov, EudraCT). 4. Clinical studies – types and examples (case report, case-control, cohort study). 5. Statistical survey – types and examples. 6. Statistical units, population parameters, statistical sample, representativeness. 7. Construction of questionnaire – types of variables (qualitative, quantitative, scales). 8. Interpretation of descriptive characteristics (frequencies, moments, quantiles). 9. Visualization of statistical results (tables, graphs). 10. Principles of statistical testing (research and statistical hypothesis, p-value). 11. Citations versus plagiarism. 12. Scientific journal database on internet (SCOPUS).

Faculty:	Faculty of Health Studies
Course title:	Psychology in Health Care
Course code:	KO/ZPV9
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Credit requirement is 80% active seminar attendance, demonstrating the knowledge of the issues covered in a written test; an oral exam.
Course goal:	The subject is the part of psychology and introduces the issues of medical psychology. It deepens the knowledge which is important for professional dealing with difficult situations in care after patients with individual needs, with handicaps and dying patients, as well as it helps with keeping the mental balance of the care provider himself.
Content:	Lecture Topics: 1. week: Psychological issues of illness 2. week: Relations of psychosomatic and psychosomatic, auto-plastic view of the illness 3. week: Experiencing illness in time, relation of the ill to the illness 4. week: Categories of the ill from the psychological point of view 5. week: Psychological issues of hospitalization, iatropatogenic, sororigeny and egrotogeny 6. week: Professional deformation, danger of appearance of the burn-out syndrome 7. week: Psychology of pain, anxiety, fear and inferiority 8. week: Type of disorders and psychological approach towards the clients 9. week: Dying and death from the psychological point of view, the rules of professional behaviour Seminar Topics: 1. week: Productive and unproductive behaviour, medical staff as a client 2. week: Psychotherapy in medical work 3. week: Illness/disease/disorder as a difficult life situation 4. week: Communication with an ill client 5. week: Communication within the client's social network 6. week: Inadaptive character symptoms 7. week: Unproductive behaviour 8. week: Productive behaviour and its signs 9. week: The peculiaries of the approach towards the clients at the departments: internal, surgery, gynaecology, neurology. Brining sad news

OCCUPATIONAL THERAPY

Winter Term

Faculty:	Faculty of Health Studies
Course title:	English language l
Course code:	KE/AJE9
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Ivana Turková
Term:	winter
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on student:	Attendance 80%, Online quizzes 80%, Oral conversation
Course goal:	The subject includes teaching English for intermediate students focused on professional language regarding health care area within Occupational Therapy. The aim is reading and understanding foreign professional texts, enhance listening skills and communication with patients and colleagues.
Content:	 Seminar Topics: Introduction to Occupational Therapy The Human Body, Positional and Directional Terms The Human Body Systems The Nervous System The Muscular System At the Doctor's Office Examination of the Patient Therapeutic Techniques in OT Caring for the Elderly Caring for the Children The First Aid and Emergencies At the Hospital Communication with the Patients

Faculty:	Faculty of Health Studies
Course title:	German language l
Course code:	KE/NJE9
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Vratislava Postlová
Term:	winter
Language of instruction:	German
Lectures/exercises:	0/1
Requirements on	Active 80% seminar attendance, passing a written test with 80%
student:	passing level
Course goal:	A foreign language for intermediate level students focused on professional language.
Content:	Seminar Topics:
	1. Human body: complete description.
	2. Bones and joints I.
	3. Bones and joints II.
	4. Bone fractures and disorders.
	5. Muscles.
	6. Circulatory system.
	7. Nerve system.
	8. General health care service I.
	9. General health care service II.
	10. Revision.
Faculty:	Faculty of Health Studies
Course title:	Therapeutic Techniques and Activities I
Course code:	KE/TT1E9
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Petra Pecharová
Term:	winter
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	80% seminar attendance, continuous demonstration of practical skills
Course goal:	The subject provides students with basic knowledge of different types of
	human activities including materials and tools. It provides an insight into
	different spheres of work activities and their realization when dealing
	with different types of illnesses. The subject is structured as practical.
	The analysis of individual activities will help the students to select and
	apply appropriate techniques for treatment rehabilitation regarding the
	goals of occupational therapy.
Content:	Seminar Topics:
	1. Introduction to the subject (definition of therapeutic techniques in the
	field of occupational therapy methods and procedures, ensuring
	occupational health and safety for selected therapeutic techniques)
	2. Art technique (analysis of therapeutic activity)
	3. Art technique (analysis of therapeutic activity)
	4. Art technique (analysis of therapeutic activity)
	5. Art technique (analysis of therapeutic activity)
	6. Art technique (analysis of therapeutic activity)
	7. Art technique (analysis of therapeutic activity)
	8. Art technique (analysis of therapeutic activity)

Faculty:	Faculty of Health Studies
Course title:	Introduction to Occupational Therapy
Course code:	KE/UERE9
Level of course:	bachelor
ECTS:	4
Teacher:	doc. MUDr. Jiří Votava, CSc.
	Mgr. Petra Pecharová, PhDr. Michal Vostrý, Mgr. Radka Beranová, Dis
Term:	winter
Language of instruction:	English
Lectures/exercises:	2/2
Requirements on student:	Active 80% participation in seminars, participation in a trip to a selected institution, creation and presentation of the seminar assignment: "The analysis of the internet address dealing with the issues of the disabled", "The analysis of the piece of art considering the issue of health disability", "The analysis of life roles of a particular person".
Course goal:	The goal of this subject is to familiarize the students with occupational therapy specialization, its history and knowledge, skills as well as skills abilities an occupational therapist should develop. Furthermore, it shows the student the areas and institutions where an occupational therapist can be employed.
Content:	 Lecture Topics: 1. The history of occupational therapy in the Czech Republic and around the world. 2. Current status situation of occupational therapy, the system of education. 3. Medical and comprehensive rehabilitation. 4. Status and organization of people with health disability. 5. Understanding of occupational therapy, expertise areas for an occupational therapist. 6. Team work, activities training. 7. Examination in occupational therapy. Aid /Assisting technique. 8. Pre-occupational rehabilitation. 9. Client's living environment. 10. Occupational therapy and its application for common diagnoses and disabilities. 11. The types of institutions where occupational therapists work. Seminar Topics: 1. 1. Compensation aids. 2. Work with case reports, taking anamnesis. 3. Simulation of disability. 4. Evaluation of barriers in the residence and public building. 5. Examination by an occupational therapist. 6. Positioning. 7. Work with occupational therapy documentation. 8. ADL - testing and practice. 9. List of medical procedures in occupational therapy and physiotherapy.

Faculty:	Faculty of Health Studies
Course title:	Winter Skiing Course
Course code:	KE/ZTVE9
Level of course:	bachelor
ECTS:	1
Teacher:	PhDr. Hana Kynštová
Term:	winter
Language of instruction:	English
Lectures/exercises:	5 days
Requirements on student:	Active participation in ski training course for the impaired.
Course goal:	The idea of the course is to familiarize the students both theoretically and practically, within the skiing course, with the basics of downhill and cross-country skiing. The emphasis will be put on teaching of Czech school of skiing: downhill and slalom technique for alpine skiing and classic and skate skiing style when teaching cross-country skiing. The goal of the training is to have the ability to apply individual skiing skills when teaching skiing to disabled people.
Content:	Content Focus: The didactics and assistance of skiing on the monoski. The didactics of skiing for people with visual impairment. The didactics of skiing for people with hearing impairment. Supporting activities.

Faculty:	Faculty of Health Studies
Course title:	Art Therapy I
Course code:	KE/ART19
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Hana Kynštová, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on student:	80% seminar attendance, result presentation regarding practical classes
Course goal:	The subject provides basic information about art therapy application among children and adults with mental, movement and sense disability. It also deals with art therapy in psychiatry and helps students to understand some techniques applied in occupational therapy intervention.
Content:	 Seminar topics 1.Introduction to the subject of art therapy, basic terms and definitions. 2. The Goals of art therapy. The meaning of colours. The structure of therapy. 3. Art therapy among children with mental, sense and physical disability. 4. Art therapy among adult individuals with mental, sense and physical disability. 4. Art therapy among adult individuals with mental, sense and physical disability. 6. Individual art therapy of blind people: haptic communication. 6. Individual art therapy of deaf people: hand gesticulation. 7. Art therapy for psychiatric diagnosis. 8. Art therapy application while dealing with an individual. 9. Group art therapy application. 10.Group discussion regarding results presentation gained during practical classes

Faculty:	Faculty of Health Studies
Course title:	Psychology
Course code:	KE/ PSYE9
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	progress test, oral exam
Course goal:	The subject includes the areas of psychological scientific disciplines: general psychology, personality psychology, developmental psychology; it develops the student's knowledge regarding health psychology and social psychology. Special emphasis is put on mental health of women and children including prevention of negative states in the society.
Content:	 Lecture Topics: 1. Socialization of an individual. 2. Mechanism of socialization. 3. Agents of socialization. 4. Socio-pathological phenomena in the society. 5. Prevention of socio-pathological phenomena. 6. Social group, delimitation, classification. 7. Structure and dynamics of a group. 8. Social role and position, professional deformation and its prevention. 9. Family and its development. 10. Pathology of the family. 11. Dependency issues. Seminar Topics: Social development of an individual. Problems connected with mechanisms of socialization. Relationships between agents of socialization. Socio-pathological phenomena. Management of social groups. Goals, values, standards. Social role and position, the process of identifying them. Predictable and unpredictable crises. Pathology of the family.

Faculty:	Faculty of Health Studies
Course title:	Music Therapy
Course code:	KE/MUZE9
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Radka Beranová, DiS.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1 hour per week
Requirements on student:	Active 80% attendance at seminars
Course goal:	Subject creates the music intervention to accomplish individualized goals and needs of patient. It introduces students with music therapy which can be used in occupational therapy. Music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals. After assessing the strengths and needs of each client, the music therapist provides the indicated treatment including creating, singing, moving to, and/or listening to music. Through musical involvement in the therapeutic context, clients' abilities are strengthened and transferred to other areas of their lives. Music therapy also provides avenues for communication that can be helpful to those who find it difficult to express themselves in words. Music therapy supports its effectiveness in many areas such as overall physical rehabilitation and facilitating movement, increasing people's motivation to become engaged in their treatment, providing emotional support for clients and their families, and providing an outlet for expression of feelings. The aim is to teach basic terminology of this discipline and gain general knowledge and important fact about music therapy for health treatment and educational goals in practice.
Content:	1 week Subject and task of music therapy
	2 week Basic information about history and terminology
	3 week practical exercises (creating music)
	4 week practical exercises (listening music)
	5 week practical exercise (moving to music)
	6 week learning of skill of relaxation
	7 week identifying of diagnosis and fit music therapy

Faculty:	Faculty of Health Studies
Course title:	Practical bio-statistics
Course code:	KE / 1PBS
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	exam
Course goal:	Analysis of bio-statistical data using specialized SW.
Content:	 Statistical analysis can be provided by more or less specialized SW. The free product "R" is used in this course. Students first learn how to manage the data. Then the basic descriptive characteristics are performed and the classical analytical statistical tools employed to test and to model dependencies among variables. The course is taught in English. Preliminary theoretical knowledge of statistics is not required. The course ends with the practical analysis of bio-statistical data. 1. FW R-project. Downloading, basic principles, menus, help. 2. R-project. Inserting, re-calculating and saving the data. 3. Types of variables. Categorical variable – frequencies. 4. Continuous variable – quantile and moment characteristics. 5. Computer testing with the use of p-values. 6. Categorical variables – bivariate contingency tables, chi2-test of independency. 7. Continuous variables – t-tests. 8. Analysis of variance (ANOVA) – models and tests. 9. Regression models (1) – simple regression and correlation. 10. Regression models (2) – multiple regression. 11. Time series – description, models and forecasting. 12. Cluster analysis (distance measures, k-means clustering). 13. Survival analysis (survival function, tests, Cox regression).

Faculty:	Faculty of Health Studies
Course title:	Principles of bio-research
Course code:	KE / 1PBR
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on student:	exam
Course goal:	Basic principles of scientific research with an emphasis on healthcare science
Content:	 The aim of the course is to introduce the basic principles of scientific research to students to enable them to carry out independently all the essential steps at the level required for their thesis as well as other future scientific activities, mainly in the field of healthcare sciences. The course is taught in English. The course ends with an oral exam. 1. Basic and applied research. Steps of the research project. 2. Research and search. Ethical aspects of bio-research (informed consent). 3. Clinical trials – types and examples (database ClinicalTrials.gov, EudraCT). 4. Clinical studies – types and examples (case report, case-control, cohort study). 5. Statistical survey – types and examples. 6. Statistical units, population parameters, statistical sample, representativeness. 7. Construction of questionnaire – types of variables (qualitative, quantitative, scales).
	 Interpretation of descriptive characteristics (frequencies, moments, quantiles). Visualization of statistical results (tables, graphs). Principles of statistical testing (research and statistical hypothesis, p-value). Citations versus plagiarism. Scientific journal database on internet (SCOPUS). Impact factor. Database Web of Science.

Summer Term

Faculty:	Faculty of Health Studies
Course title:	German language II
Course code:	KE/NJE29
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Vratislava Postlová
Term:	summer
Language of instruction:	German
Lectures/exercises:	0/1
Requirements on student:	Written recherche elaborate of foreign professional resources. Active 80% attendance at seminary instructions.
Course goal:	The subject includes teaching of German to intermediate students aiming at professional language for healthcare sector. The goal is that a student is able to read, correctly pronounce and understand a professional text in German and he is able to follow the media offer either at home or abroad. Furthermore, the student will able to communicate in German within professional environment.
Content:	 Seminar Topics: Health care: the fields of activities First aid I. First aid II. Medication: Side effects and addiction. Healthy lifestyle I. Healthy lifestyle II. Rehabilitation in hospital. Admittance and Discussion about anamnesis. Teplice Spa. Revision

Faculty:	Faculty of Health Studies
Course title:	Therapeutic Techniques and Activities II
Course code:	KE/TT2E9
Level of course:	bachelor
ECTS:	3
Teacher:	Mgr. Petra Pecharová, Mgr. Radka Beranová, Dis.
Term:	summer
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Creating compensation aids and teaching aids to use in occupational therapy, the presentation of the aids, examination of the client by a selected test.
Course goal:	The subject provides students with basic knowledge of different types of human activities including materials and tools. Students get familiar with different types of work activities and their application for various types of disorders/illnesses, with individual devices used in occupational therapy. The subject is structured as practical. The analysis of individual activities makes it easier for students to decide how to use the aids in treatment rehabilitation regarding the goals of occupational therapy
Content:	 Seminar topics: Therapeutic procedures on the device Myro Therapeutic procedures on the device Armeo Spring Therapeutic procedures on the device BalanceTutor Therapeutic procedures on the device Saebo, SaeboStim Micro DOTCA-CH Battery, DLOTCA-G Battery, DYNAMIC LOTCA Battery MABC-2 Battery, ACFS Battery, Art technique (analysis of therapeutic activity) Art technique (analysis of therapeutic activity) Art technique (analysis of therapeutic activity) Presentation of a tool/aid produced. Seminar Topics: - 10. Selected therapeutic techniques with a focus on manual activities, kinesiological analysis of therapeutic activities, creation of individual compensatory and teaching aids. Introduction to certified test batteries, introduction to devices used in occupational therapy

Faculty:	Faculty of Health Studies
Course title:	The Theory of Occupational therapy
Course code:	KE/TERG9
Level of course:	bachelor
ECTS:	5
Teacher:	doc. MUDr. Jiří Votava, CSc., Mgr. Petra Pecharová, Mgr. Radka Beranová, Dis.
Term:	summer
Language of instruction:	English
Lectures/exercises:	2/3
Requirements on student:	80% seminar attendance, continual demonstration of practical skills, creating and presenting seminar paper: "The evaluation of architectonic barriers in a public building and offering the project for removing them". "Monitoring the activities of Czech Association of Occupational Therapists and its events"
Course goal:	The aim of the subject is to familiarize the students with theoretical basis of occupational therapy and deepen their knowledge and skills which are necessary for modern occupational therapy as well as for comprehensive rehabilitation (where an occupational therapist is actively involved) for people with health disability.
Content:	 Lecture Topics: 1. The parts of comprehensive occupational therapy, subsequent treatment rehabilitation, the role of an occupational therapist. 2. The theoretical basis of occupational therapy. 3. The example of a Canadian model and MOHO, basic values of occupational therapy. 4. International organization of occupational therapists, cooperation with Czech Association of Occupational Therapists. 5. Terminology in occupational therapy. 6. International classification ICF. 7. Classification of aids. 8. Occupational diagnostics, life quality. 9. The access for the disabled. 10. The differences in attitude towards children and people with sensory impairment. 11. Work with a family and a group. Seminar Topics: The basics of Bobath concept when developing client's independence. The analysis of activities focused on the extent of movements and muscular strength, the assessment of hand function. Analysis of activities focused on the extent of movements and muscular strength, assessment of hand function. Kinesthetic mobilization. Kinesthetic mobilization. 7. The introduction of basal stimulation elements. 9. Practical independence training according to specified types of disability.

Faculty:	Faculty of Health Studies
Course title:	Art Therapy II
Course code:	KE/ART25
Level of course:	bachelor
ECTS:	1
Teacher:	PhDr. Hana Kynštová, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on	80% of seminar attendance. Artwork analysis dealing with issues of
student:	person with health disabilities
Course goal:	The subject follows the subject course Art Therapy I and provides extended information about possibilities of applying art therapy techniques to children and adults with mental, movement and sensory disability. Students are trained to lead a selected art therapeutic program.
Content:	 Seminar Topics: 1. Art therapy in the Czech Republic and in the world. 2. Group art therapy application in occupational therapy. 3. Group art therapy application in psychotherapy. 4. – 7. Art therapy program led by students and subsequent analysis of the intervention.

Faculty:	Faculty of Health Studies
Course title:	Yoga
Course code:	KE/JOGE9
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Ivana Turková
Term:	summer
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on	Classes attendance
student:	
Course goal:	The subject provides basic information about yoga methods and their application for healthy people and possibilities of applying them for patients with the disability of movement apparatus, with nerve diseases, cardiovascular and respiratory disorders and others. The goal is to understand the meaning of basic exercises in order to use them in occupational therapy and learn individual yoga methods and discover moral principles in yoga.
Content:	 Seminar Topics: 1. Philosophy and principles of yoga, introduction of various yoga styles 2. Training of basic asanas, exercise series and sets 3. Exercise series and sets I 4. Exercise series and sets II 5. Yoga in pairs 6. Acrojoga 7. Group yoga 8. Children's yoga 9. Yoga during pregnancy and after childbirth, yoga for seniors

Faculty:	Faculty of Health Studies
Course title:	Medical psychology
Course code:	KE/ ZPSE5
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Student gains credit for at least 80% of active attendance in seminars. Further students demonstrate familiarization with given issues in written form. Spoken form of the exam.
Course goal:	The subject is the part of psychology and introduces the issues of medical psychology. It deepens the knowledge which is important for professional dealing with difficult situations in care after patients with individual needs, with handicaps and dying patients, as well as it helps with keeping the mental balance of the care provider himself.
Content:	 Lecture Topics: 1. Psychological issues of an illness/disorder. 2. Psychosomatic and somatopsychic relations, autoplastic illness image. 3. Experiencing the illness in time, relation of an ill person to the illness. 4. The category of ill people from the psychological point of view. 5. Psychological issues of hospitalization, iatropatogeny, sororigeny a egrotogeny. 6. Professional deformation, the danger of burn-out syndrome development. 7. Stress, the psychology of pain. 8. The types of disability and psychological attitude towards clients. 9. Anxiety, fear. 10. The principles of professional behaviour. Seminar Topics: 1. Productive and non-productive behaviour, a health care provider as a client. 2. Psychotherapy in health care work. 3. Illness as a difficult life situation. 4. Communication with an ill client. 5. Communication within a social network of a client. 6. Non-adaptive personality demonstrations, non-productive behaviour. 7. Productive behaviour and its manifestations. 8. The attitude percularities towards the clients in some departments: internal, surgical. 9. The attitude percularities towards the clients in some departments: gynaecological and neurological. 10. Sharing sad news

Faculty:	Faculty of Health Studies
Course title:	Summer Cycling Course
Course code:	KE/LTVE9
Level of course:	bachelor
ECTS:	1
Teacher:	PhDr. Alena Charvátová, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	5 days
Requirements on	Active course participation. Active participation in cycling training for
student:	people with disability.
Course goal:	The content of the course is to familiarize the students both practically
	and theoretically with the basics of hiking and cycling by means of the
	course organized in nature.
Content:	Content specialization:
	Didactics and assistance of hand bike ride.
	Didactics of sports in nature of visually impaired people.
	Didactics of sports in nature of people with hearing impairments.
	Accompanying/additional activities.

Faculty:	Faculty of Health Studies
Course title:	Practical bio-statistics
Course code:	KE / 1PBS
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	exam
Course goal:	Analysis of bio-statistical data using specialized SW.
Content:	 Statistical analysis can be provided by more or less specialized SW. The free product "R" is used in this course. Students first learn how to manage the data. Then the basic descriptive characteristics are performed and the classical analytical statistical tools employed to test and to model dependencies among variables. The course is taught in English. Preliminary theoretical knowledge of statistics is not required. The course ends with the practical analysis of bio-statistical data. 1. FW R-project. Downloading, basic principles, menus, help. 2. R-project. Inserting, re-calculating and saving the data. 3. Types of variables. Categorical variable – frequencies. 4. Continuous variable – quantile and moment characteristics. 5. Computer testing with the use of p-values. 6. Categorical variables – bivariate contingency tables, chi2-test of independency. 7. Continuous variables – t-tests. 8. Analysis of variance (ANOVA) – models and tests. 9. Regression models (1) – simple regression and correlation. 10. Regression models (2) – multiple regression. 11. Time series – description, models and forecasting. 12. Cluster analysis (distance measures, k-means clustering). 13. Survival analysis (survival function, tests, Cox regression).

Faculty:	Faculty of Health Studies
Course title:	Principles of bio-research
Course code:	KE / 1PBR
ECTS:	5
Level of course:	bachelor
Teacher:	RNDr. Karel Hrach, Ph.D.
Term:	winter, summer
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on student:	exam
Course goal:	Basic principles of scientific research with an emphasis on healthcare science
Content:	 The aim of the course is to introduce the basic principles of scientific research to students to enable them to carry out independently all the essential steps at the level required for their thesis as well as other future scientific activities, mainly in the field of healthcare sciences. The course is taught in English. The course ends with an oral exam. 1. Basic and applied research. Steps of the research project. 2. Research and search. Ethical aspects of bio-research (informed consent). 3. Clinical trials – types and examples (database ClinicalTrials.gov, EudraCT). 4. Clinical studies – types and examples (case report, case-control, cohort study). 5. Statistical survey – types and examples. 6. Statistical units, population parameters, statistical sample, representativeness. 7. Construction of questionnaire – types of variables (qualitative, quantitative, scales).
	 Interpretation of descriptive characteristics (frequencies, moments, quantiles). Visualization of statistical results (tables, graphs). Principles of statistical testing (research and statistical hypothesis, p-value). Citations versus plagiarism. Scientific journal database on internet (SCOPUS). Impact factor. Database Web of Science.

PHYSIOTHERAPY Winter Term

Faculty:	Faculty of Health Studies
Course title:	Physiotherapy I
Course code:	KF/FZ19
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Kateřina Tichá, Ph. D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	2/3
Requirements on	Active participation in seminars - 80%
student:	Demonstration of acquired practical skills Written credit test, other oral terms
	PREREQUISITES FOR THE KF/ ANF29 SUBJECT
Course goal:	The course is conceived as theoretically - practical, it is a basic branch subject. It introduces students to the pathogenesis of functional disorders of the musculoskeletal system, to the methods used in rehabilitation and to physiotherapeutic procedures in individual clinical subjects. Student will apply the knowledge in professional practice. The aim is to use the knowledge of individual processes and methods and to apply the correct choice according to clinical conditions.
Content:	 Lecture topics Introduction, basic terminology. Physiotherapeutic procedures at ARU and ICUs. Respiratory Physiotherapy (Drainage Techniques, Relief Locations, Breath Trainers) Functional examination of lungs - spirometry and static and dynamic pulmonary volumes, stress spiroergometry. Respiratory Physiotherapy - Procedures for Chronic Respiratory Deficiency (COPD). Physiotherapeutic procedures in the pediatric indication area - respiratory system diseases in childhood (asthma bronchiale, cystic fibrosis). Physiotherapeutic procedures in osteoporosis. Physiotherapy for burns. Seminar topics: Kinesiological analysis. Cervical and thoracic spine automobilisation. Lumbar spine and pelvis automobilisation. Brugger's concept: theraband application. Sensomotorics: basic principles. Sensomotorics: unstable surfaces and their application. The method of L. Mojžíšová (the principles of Mojžíšová method, indications and contraindications of Mojžíšová method, rib palpation: anterior, posterior and spasm palpation, abdomen, hip adductors, gluteal muscles, coccyx palpation.

Faculty:	Faculty of Health Studies
Course title:	Physiotherapy III
Course code:	KF/FZ39
Level of course:	bachelor
ECTS:	4
Teacher:	PhDr. Eva Buchtelová, Ph. D., PhDr. Kateřina Tichá, Ph. D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	2/3
Requirements on student:	Active participation in seminars - 80% Demonstration of practical skills Oral examination of credit
Course goal:	The course is conceived as theoretically - practical, it is a basic branch subject. It introduces the students to pathogenesis of functional disorders of the musculoskeletal system, to the methodologies and concepts used in physiotherapy in individual indicated areas. Student will apply the knowledge and the skills gained in professional practice. The aim is to use the knowledge of individual processes and methods in clinical fields.
Content:	Lecture Topics: 1. Physiotherapy - traumatology in the area of ??the upper limb (fractures in the region of the blade, collarbone and proximal end of the humerus. 2. Physiotherapy - Traumatology in the area of ??the upper limb (fractures in the distal humerus, elbow, forearms, wrists and hands). 3. Physiotherapy - traumatology in the pelvic circle and spine. 4. Developmental defects of the hip joint - VDK, M. Perthes, coxa vara adolescentia 5. Spinal defects - dorsum planum, M. Scheuermann, scoliosis. 6. Congenital and acquired defects of legs and fingers. 7. Painful shoulder syndrome (impingement sy tests, rotator cuff disorders, instability). 8. Injury of the tendon apparatus of the hand (flexor and extensor apparatus). 9. Entezopathy. 10. Repetition.
	 Seminar topics: 1. PNF - lower limb -1. diagonal DK. 2. PNF - Lower limb2. diagonal DK. 3. PNF - Hull, pelvis and head. 4. PNF - booster and relaxation techniques. 5. The subject of physiotherapy in the lower limb area 6. The subject of physiotherapy in the upper limb area 7. Acral coactivation therapy - basic principles, ventral and dorsal chains, acer settings 8. Acral Coactivation Therapy - Exercise based on developmental kinesiology 9. Repeat

Faculty	Faculty of Health Studies
Course title:	Winter Skiing Course
Course code:	KF/ZTF9
Level of course:	bachelor
ECTS:	1
Teacher:	Hana Kynštová, Ph. D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	5 days
Requirements on	Active participation in ski training course for the impaired.
student:	
Course goal:	The idea of the course is to familiarize the students both theoretically and practically, within the skiing course, with the basics of downhill and cross-country skiing. The emphasis will be put on teaching of Czech school of skiing: downhill and slalom technique for alpine skiing and classic and skate skiing style when teaching cross-country skiing. The goal of the training is to have the ability to apply individual skiing skills when teaching skiing to disabled people.
Content:	Content specialization: Didactics and assistance of monoski ride. Skiing didactics for visually impaired people. Skiing didactics for people with hearing impairments. Accompanying/additional activities.

Faculty:	Faculty of Health Studies
Course title:	Yoga
Course code:	KF/JOGF5
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Jitka Vaněčková
Term:	winter
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on student:	Classes attendance
Course goal:	The subject provides basic information about yoga methods and their application for healthy people and possibilities of applying them for patients with the disability of movement apparatus, with nerve diseases, cardiovascular and respiratory disorders and others. The goal is to understand the meaning of basic exercises in order to use them in occupational therapy and learn individual yoga methods and discover moral principles in yoga.
Content:	 Seminar Topics: 1. Preparatory exercises. 2. Exercise sets and exercises. 3. Exercise sets and exercises. 4. Basic asanas I. and II. 5. Hatha, gymnastics of yoga. 6. Basics of cleansing techniques. 7. Basics of Bandha and Mudra. 8. Basics of relaxation. 9. Basics of concentration. 10. Diet and yoga.

Faculty:	Faculty of Health Studies
Course title:	Physical Education and Didactics I
Course code:	KF/TVF19
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Veronika Kvochová, Mgr. Zuzana Lhotská
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Graphic presentation of an exercise unit. Active 80% participation in seminars.
Course goal:	The course is conceived as theoretical - practical. It is the basis for following physiotherapy subjects. The aim is to manage stated physical activities and to develop the skills in order to apply them in physiotherapy included graphic presentation of movement and terminology.
Content:	Lecture topics: 1. Importance, content and forms of physical education in physiotherapy. 2. Terminology and graphic presentation of movement. 3. Importance and way of stretching the most often shortened muscle groups. 4. Importance and way of strengthening the most often weakened muscle groups. 5. Correct and incorrect posture, the proportion of muscle groups. 6. Construction of a training unit. 7. Development and diagnosis of power abilities. 8. Development and diagnosis of speed abilities. 9. Development and diagnosis of coordination abilities 10.Development and diagnosis of mobility abilities 11.Revision Seminar Topics: 1. The principles of stretching muscle groups. 2. Stretching. 3. Stretching exercises. 4. The principles of stretching. 5. Callanetics. 6. Back muscles strengthening exercises. 7. Abdominal strengthening exercises. 8. Arrangement of a training unit. 9. Presentation of a training unit. 10. Presentation of a training unit.

Faculty:	Faculty of Health Studies
Course title:	Psychology
Course code:	KF/ PSYF9
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	progress test, oral exam
Course goal:	The subject includes the areas of psychological scientific disciplines: general psychology, personality psychology, developmental psychology; it develops the student's knowledge regarding health psychology and social psychology. Special emphasis is put on mental health of women and children including prevention of negative states in the society.
Content:	 Lecture Topics: 1. Socialization of an individual. 2. Mechanism of socialization. 3. Agents of socialization. 4. Socio-pathological phenomena in the society. 5. Prevention of socio-pathological phenomena. 6. Social group, delimitation, classification. 7. Structure and dynamics of a group. 8. Social role and position, professional deformation and its prevention. 9. Family and its development. 10. Pathology of the family. 11. Dependency issues. Seminar Topics: Social development of an individual. Problems connected with mechanisms of socialization. Relationships between agents of socialization. Socio-pathological phenomena. Management of social groups. Goals, values, standards. Social role and position, the process of identifying them. Predictable and unpredictable crises. Pathology of the family.

Faculty:	Faculty of Health Studies
Course title:	Physical Therapy I
Course code:	KF/ FT19
Level of course:	bachelor
ECTS:	3
Teacher:	Mgr. Ondřej Kališko
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Credit: 80% active participation in seminars, demonstration of acquired practical skills - basic massage touches, performing individual sets of classical massage, passing practical training in balneotherapy of a spa facility (Lázně Teplice a.s.), passing a credit test.
Course goal:	The course is designed as theoretical - practical, it is the subject of profiling base of the study program. It enables students to acquire professional theoretical knowledge and practical skills in the field of physical therapy with a focus on the use of traditional and modern physical means. Learning outcomes of the course unit The aim of the course is to acquire professional knowledge, professional skills and general abilities in the field of principles and therapeutic procedures in the implementation of the physical therapy program, acquiring knowledge of the physical mechanism of each procedure, including adherence to safety and health at work.
	 Introduction to the study, basic division, aspects of modern physical therapy. Effects of physical stimuli, general principles of choice of physical therapy. Therapy. Therapy. Hydrotherapy. Application of local heat, cryotherapy. Inhalation. Classic massage. Mechanotherapy. Therapy of lymphedema. Indications and contraindications of physical therapy. Classic massage - set for DK from behind, from front. Classic massage - set for HK. Classic massage - set for neck and head. Classic massage - set for chest, abdomen. Thermotherapy. Hydrotherapy. Mechanotherapy. Use of hydrotherapy.

Faculty:	Faculty of Health Studies
Course title:	Kinesiology methods
Course code:	KF/ MK29
Level of course:	bachelor
ECTS:	5
Teacher:	Mgr. Ondřej Kališko
Term:	winter
Language of instruction:	English
Lectures/exercises:	2/3
Requirements on	Active participation in lessons
student:	Demonstration of practical skills
	Written test, another term of oral examination.
Course goal:	Learning outcomes of the course unit The course is a follow-up to information acquired in the disciplines of physiotherapy and provides knowledge of modern methods of movement therapy. In the form of theoretical - practical students will acquire these methods and use them in professional practice.
Content:	Lecture topics: 1. McKenzie method 2.Bobath's concept in children and adults 3. Reflex Locomotion Method Vojty (positional reactions) 4. Developmental kinesiology according to Kolář 5.Dynamic neuromuscular stabilization 6.Basal programs and subroutines according to Jarmila Čápová
	 Seminar topics: 1.Basal programs and subroutines according to Jarmila Capova 2.Dynamic neuromuscular stabilization 3. Examination and mobilization of ribs, spine according to Lewit

Summer Term

Faculty:	Faculty of Health Studies
Course title:	English language I
Course code:	KF/AJF19
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Hana Vohradská
Term:	summer
Language of instruction:	English
Lectures/exercises:	0/2
Requirements on	Active participation in classes, written test.
student:	
Course goal:	The subject includes teaching English for intermediate students focused on professional language regarding health care area. The aim is reading and understanding foreign professional texts and communication with patients.
Content:	 Seminar Topics: 1. The human body and its systems. 2. Positional and directional terms, body systems 3. The musculoskeletal system. 4. Medical professions 5. Examination questions. 6. Diseases and disorders. 7. The hospital and wards. 8. At the doctor's. 9. Orthopaedics. 10. Revision.

	Faculty of Health Studies
Faculty:	
Course title:	German language I
Course code:	KF/NJF19
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Vratislava Postlová
Term:	summer
Language of instruction:	German
Lectures/exercises:	0/2
Requirements on student:	Active 80% seminar attendance, passing a written test with 80% passing level
Course goal:	The subject includes language teaching for intermediate students with the focus on professional language in health care system. The aim is reading and comprehension of foreign special texts, developing the ability to summarise and to reproduce the main ideas, and especially the ability to communicate with a patient or with other professionals of similar occupation.
Content:	 Seminar topics: Der menschliche K

Faculty:	Faculty of Health Studies
Course title:	Summer Cycling Course
Course code:	KE/LTVF9
Level of course:	bachelor
ECTS:	1
Teacher:	PhDr. Alena Charvátová, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	5 days
Requirements on	Active course participation. Active participation in cycling training for
student:	people with disability.
Course goal:	The content of the course is to familiarize the students both practically
	and theoretically with the basics of hiking and cycling by means of the
	course organized in nature.
Content:	Content specialization:
	Didactics and assistance of hand bike ride.
	Didactics of sports in nature of visually impaired people.
	Didactics of sports in nature of people with hearing impairments.
	Accompanying/additional activities.

Faculty:	Faculty of Health Studies
Course title:	Clinical psychology
Course code:	KF/ KPSF9
Level of course:	bachelor
ECTS:	1
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	Student gains credit for at least 80% of active attendance in seminars and demonstration of orientation in the field in writing.
Course goal:	Learning outcomes of the course unit The subject deepens the knowledge about mental life of man in bio-psycho-social context. The aim is to gain knowledge about mental and personality disorders. It also focuses on the professional behavior of nursing staff.
Content:	Lecture topics: 1. Changes and disorders of perception. 2. Attention and consciousness disorders. 3. Emotional, affective, emotional disorders. 4. Emotional, affective, emotional disorders. 5. Disorders of instincts, instincts, behavior. 6. Disorders of instincts, instincts, behavior. 7. Disorders of thinking, speech. 8. Sleep disorders. 9. Memory disorders Seminar topics: 1. Personality and behavior disorders. 3. Neurotic disorders. 4. Neurotic disorders. 5. Behavior disorders. 5. Behavior disorders. 6. Psychotic disorders. 7. Eating disorders. 8. Working with handicapped individual. 9. Working with handicapped individual.

Faculty:	Faculty of Health Studies
Course title:	Physical Therapy II
Course code:	KF/ FT29
Level of course:	bachelor
ECTS:	3
Teacher:	Mgr. Ondřej Kališko
Term:	summer
Language of instruction:	English
Lectures/exercises:	1/2
Requirements on student:	Credit: 80% attendance at the practical part of the course, credit on the basis of the practical examination of reflexology massages. Oral examination: three questions theoretical and practical design of the procedure based on a specific prescription - a voucher issued by a doctor.
Course goal:	The course is designed as theoretical-practical. It enables students to acquire theoretical knowledge and practical skills in the field of physical therapy, focusing on the use of traditional and modern physical therapy procedures.
Content:	Lecture topics:
	 Basic principles and expectations of physical therapy, general indications and contraindications. Individual methods and procedures of physical therapy applied by a physiotherapist always in the structure: principle, effects of setting the parameters of the procedure and their influence on the effect, indications, contraindications, practical application. Electrotherapy - low frequency currents - galvanotherapy. Electrotherapy - low frequency currents - classical currents. Electrotherapy - medium frequency currents. Electrotherapy - high frequency currents (diathermy + DET). Magnetotherapy. Electrostimulation and electrogymnastics. Principles of safe application and prescription of physical therapy, correct interpretation of the prescription of physical therapy in order to set the right therapeutic parameters towards the goal of treatment.
	 Exercise topics 1. Reflexology massage - back set. 2. Reflexology massage - neck and head set. 3. Reflexology massage - chest and pelvic assembly. 4. Ball facilitation according to Jebava. 5. Examination and treatment of soft tissues. 6. Introduction to the control of physical therapy devices (electrotherapy). 7. Setting the right parameters on physical therapy devices (electrotherapy). 8. Practical application of physical therapy (electrotherapy - low frequency currents). 9. Practical application of physical therapy (electrotherapy - medium frequency currents). 10. Practical application of physical therapy (electrotherapy - electrotherapy - electrotherapy).

MEDICAL RESCUE

WINTER TERM

Faculty:	Faculty of Health Studies
Course title:	Anatomy
Course code:	KZR/ANZ2
Level of course:	bachelor
ECTS:	5
Teacher:	MUDr. PhDr. Marcel Nesvadba, PhD.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	Active participation in seminars – min. 80% Continuous verification of knowledge during the academic year (test). Oral examination
Course goal:	The course is conceived as theoretically – practical and contains an overview of systematic human anatomy, namely topographic, microscopic, functional, developmental and applied. The aim is to provide knowledge about the interconnectedness of individual systems of the human body in its integrity and the resulting functionality.
Content:	 Lecture topics: Introduction to the subject. Basic anatomical orientation on the human body, anatomical nomenclature. Basic overview of tissues. Anatomy of the passive locomotor system I (axial skeleton, skull). Anatomy of the passive locomotor system II (skeleton of the limbs). Anatomy of the active locomotor system I (structure and classification of muscles, head and neck muscles). Anatomy of the active locomotor system II (torso and limb muscles). Cardiovascular system I (heart structure, blood circulation). Cardiovascular system II (structure and classification of blood vessels, blood; lymphatic system). Respiratory system (nasal cavity, paranasal sinuses, nasopharynx, larynx, lungs, pleura, mediastinum). Digestive system (oral cavity, pharynx, esophagus, intestinal stomach, relevant glands). Genitourinary system I (kidneys, ureters, bladder, urethra). Senitourinary system I (male and female genitalia). Endocrine glands. Nervous system I (central nervous system). Sensory systems. Skin system.
	 Seminar topics: 1. Tissues (classification, structure, function). 2. Passive locomotor system I (bone classification, skeleton). 3. Passive locomotor system II (joint structure, division, movements). 4. Active locomotor system I (classification, structure and function of muscles). 5. Active locomotor system II (overview of the main skeletal muscles). 6. Cardiovascular system I (heart structure, conduction system, ECG curve). 7. Cardiovascular system II (classification and structure of blood vessels,

vascular bed, blood circulation, lymphatic system).
8. Respiratory system (cavities, vocal cord, bronchial tree, respiratory volumes).
9.Digestive system (tooth, glands belonging to the digestive system, enterohepatic circulation).
10. Genitourinary system I (nephron, urinary tract - structure and function).
11. Urogenital system II (male and female genitals, ovarian and menstrual cycle, relationship to the endocrine system).
12. Nervous system I (division of the nervous system, spinal and cranial nerves, sympathetic and parasympathetic).
13. Nervous system II (CNS, anatomy of the brain and spinal cord).
14. Sensory skin systems. Anatomy of eye and ear.

Faculty:	Faculty of Health Studies
Course title:	Biochemistry, hematology and transfusion medicine
Course code:	KZR/BHZ2
Level of course:	bachelor
ECTS:	2
Teacher:	RNDr. Ing. Mgr. Petr Kelbich, Ph.D., Ing. Pavla Bradáčová, MUDr. Jan Špička, MBA
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on	Active participation in seminars – min. 80%
student:	Credit test
Course goal:	The course consists of topics dealing with biochemistry, hematology and transfusion medicine. The field of biochemistry is conceived as a theoretical unit which will provide students with basic knowledge of general and medical biochemistry for the needs of related subjects. It provides information about the biochemical balance of the internal environment of the organism, biochemical changes in the organism during the disease. It includes knowledge about laboratory tests in metabolically important groups of diseases including methods and techniques of individual collection of biological material. The field of hematology and transfusion medicine is conceived as a theoretical-practical unit which provides students with basic knowledge in the field of clinical hematology, informs about basic and special examination methods in hematology. It includes knowledge about the methods of blood collection for hematological examinations. It clarifies the basic principles of transfusion medicine, transfusion products, indications for their application and principles of administration, including post-transfusion complications.
Content:	Lecture topics:
	 Importance of biochemistry in medical fields (definition of biochemical fields - pathobiochemistry, clinical biochemistry, xenobiochemistry). Cell biochemistry (cell organelles, cell membrane - membrane transport). Composition of a living organism (biogenic elements - macrobiogenic, microbiogenic). Basic organic compounds of living matter - nucleic acids, proteins, carbohydrates, lipids). Regulation of metabolism, endocrine system. Enzymatology. Hemopoiesis, leukocytes, erythrocytes, platelets, distribution, morphology, function. Anemia, basic division, causes, manifestations, laboratory findings. Leukemia, MDS, myeloproliferation, basic division, causes, manifestations. Lymphoproliferation, basic division, causes, manifestations. Primary hemostasis, coagulation factors, fibrinolysis, blood clotting inhibitors. Disorders of hemostasis, thrombocytopathy, hemophilia, thrombophilia, vWCH, HIT, TTP, DIC. Collection of blood donors and its components. Transfusion preparations.
	 Seminar topics: 1. Repetition - chemical calculations, cell, organelles, organic chemistry. 2. Membrane transport. Expression of solution concentrations. 3. Energy - calculations. 4. Water and minerals (water distribution, main ions, water losses).

5. Acid-base balance.
6. Differences in metabolism between organisms and their importance.
7. Reference values.
 Examination of blood count, individual parameters, methods of blood collection.
Differential budget of leukocytes, pathological changes of erythrocytes, leukocytes, platelets.
10. Bone marrow collection and examination, morphological evaluation, pathological changes.
11. Basic coagulation examination, aggregation, Multiplate, PFA200, influence of preanalytical phase.
12. Special coagulation examination for coagulopathies, thrombophilia, vWCH, HIT, TTP, DIC.
13. Organization of transfusion service.
14. Crisis blood policy.

Faculty:	Faculty of Health Studies
Course title:	Microbiology, epidemiology and hygiene
Course code:	KZR/MEZ2
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Miroslava Zemanová, Ph.D.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/0
Requirements on student:	Credit test (in the form of a written test)
Course goal:	The course is conceived as a theoretical. Students will get acquainted with the basics of medical microbiology - virology, bacteriology, mycology, parasitology, immunology and epidemiology of infections in relation to infectious diseases, the origin and spread of infectious diseases, their laboratory diagnostics and treatment options including anti-epidemic measures. Furthermore, students will gain the information about the principles of health and safety at work in medical workplaces especially when performing work with biological risk. Students will master the characteristics and principles of prevention of infections associated with health care, hand hygiene and the basics of disinfection and sterilization.
Content:	 Lecture topics: 1. Microbiology - definition of the field, classification of microorganisms, division of microorganisms. 2. Microorganisms and the human organism. 3. Bacteriology - classification of bacteria, structure of bacteria, physiology of bacteria, growth and multiplication of bacteria. 4. Pathogenicity and virulence of bacteria, bacterial toxins. 5. Special bacteriology - selected parts. 6. Antimicrobial substances, resistance to antimicrobial substances. 7. Properties and classification of viruses, interactions of viruses and cells, mechanisms of viral infections, treatment of viral infections. 8. Mycology, parasitology 9. Basics of immunology - definition of the field, immune system, immunity, laboratory diagnostics. 10. Clinical immunology, immunization, vaccination calendar. 11. Basics of infectious epidemiology. Anti-epidemic measures, hand hygiene, disinfection and sterilization; Principles of health protection of health care workers in the provision of health care. 12. Infections associated with health care, their prevention and reporting. 13. Basics of hygiene. Hygienic requirements for medical facilities. 14. Nutritional hygiene and food safety. 15. Principles of health and safety at work in medical workplaces. 6. Immunology - definition of the field, immune system, immunity, laboratory diagnostics. Clinical immunology, immunization, vaccination schedule, healthcare associated infections, their prevention and reporting. 7. Epidemiology of infections, anti-epidemic measures, hand hygiene, disinfection and sterilization; Principles of health protection of health care

Faculty:	Faculty of Health Studies
Course title:	Public health and health education
Course code:	KZR/VZZ2
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Oľga Jarabicová, PhD.
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	Active participation in seminars Test (min. 75 % success) Elaboration of seminar work - intervention program focused on protection and support of health of selected population groups
Course goal:	The course is conceived as a theoretical. The course will provide knowledge of the basics of public health which deals with disease prevention, strengthening and prolonging life through organized efforts of society with the main goal of achieving the highest possible level of health of the population. Based on the integration of knowledge of biomedical and social sciences, it will provide information about the organization, structure, functions and management of individual components of health care. Part of the course is the system of health care financing in the Czech Republic.
Content:	 Lecture topics: 1. Public health care - definition, focus, content, history of public health, basic features, application, methodological tools, main functions, implementation in practice - public health authorities. 2. Health and its overall concept - definitions, health models, determinants of health, risk factors, inequality and equality in health, legislation. 3. Prevention - definition, division, application in practice. 4. Health care system - health care systems + health care financing in the Czech Republic. 5. National Health Information System - registries, IHIS, data collection (screening + epidemiological method). 6. Evaluation of the health status of the population - naming the main health indicators, health status of the population of the Czech Republic 7. Health education - definition and content of the field, goals, methods and forms of work, international documents related to health protection and promotion, Health 21, Health 2020, Health 2030 + programs applied in the Czech Republic. Seminar topics: 1. Preparation of the intervention program - project elaboration, formal side and implementation + examples from practice.
	 Questionnaire - principles for elaboration + examples from practice. Nutrition and health. Health risk assessment for employees - determining their ability to perform work. Risks associated with the performance of the medical profession. Basics of epidemiology - definition, epidemiology of chronic diseases.

Faculty:	Faculty of Health Studies
Course title:	Professional experience II
Course code:	KZR/O2Z2
Level of course:	bachelor
ECTS:	6
Teacher:	Mgr. Alena Kohlová
Term:	winter
Language of instruction:	English
Lectures/exercises:	160 hours
Requirements on	Form of verification of study results:
student:	Written confirmation of the completed range of hours of professional
	practice by a mentor in the Record of Professional Practice
	Continuous verification of knowledge during the academic year (test)
	Requirements:
	Proof of the performance of the required services according to the Record
	of Professional Practice
	100% attendance (possible absence from professional practice must be
	completed in an alternative period according to the agreement with the
	guarantor of the internship and mentor of the relevant workplace)
Course goal:	The aim of the course, following on from previous professional practice is
	to acquire other practical skills, especially in the provision of basic and
	specialized nursing care within the competencies of the paramedic. During
	the internship the student learns under professional mentoring (contracted
	treatment) to work through the nursing process, assesses the state of
	saturation needs, self-sufficiency, disease manifestations, patient risk
	factors, even using measurement techniques used in nursing practice. The
	student also acquires the knowledge needed to take the patient's medical history, analyzes the data obtained and learns to use them correctly for the
	patient's benefit. The student also cooperates with other members of the
	medical team in providing health care and ensuring the operation of the
	department.
Content:	Focus of professional practice:
	1. Familiarization with the organization of the ICU, nursing services
	associated with the admission of the patient to the ICU.
	2. Collection and orientation evaluation of biological material in intensive
	care.
	3. Monitoring of physiological functions in intensive care, monitoring of
	CNS, respiratory system, cardiovascular system, gastrointestinal tract
	functions, including assessment of oxygen saturation and basic heart
	rhythm disorders, and other body parameters using medical devices. Use
	of scoring systems in intensive care.
	4. Introduction and maintenance of inhalation and oxygen therapy,
	respiratory care.
	5. Provision and care of invasive inputs in intensive care (blood circulation,
	GIT, urinary system, epidural space).
	6. Ensuring nutrition in intensive care (finding out the nutritional status,
	enteral, parenteral nutrition).
	 7. Infusion therapy and assistance in transfusion therapy. 8. Specifics of drug application in intensive care.
	9. Wound care in intensive care.
	10. Perioperative care in intensive care, drainage care, use of ostomy
	appliances and drainage systems in patients with long-term drainage.
	Nursing care for patients undergoing puncture.
	11. Treatment of pain in intensive care.
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Faculty:	Faculty of Health Studies
Course title:	Emergency medicine I
Course code:	KZR/U1Z2
Level of course:	bachelor
ECTS:	4
Teacher:	PhDr. Mgr. et Mgr. Patrik Christian Cmorej, PhD., MHA, MUDr. Ilja Deyl, MUDr. Xaya Waicová
Term:	winter
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	Active participation in seminars – min. 80% Written test Oral examination Practical examination
Course goal:	The course is conceived as a theoretical and practical complex. It includes comprehensive issues of diagnostics, therapy of acute and critical conditions, includes securing the patient in PNP, his transport and subsequent urgent care within the medical facility, including emergency admission. Students will get acquainted with the principles of air rescue services. An integral part is the issue of war medicine with all aspects of threat including radiation, chemical and biological specifics of injuries – gunshot, devastating injuries etc. Information is also provided in the field of forensic medicine. The aim is to prepare a paramedic for the theoretical and practical management of the provision of specific nursing care in the area of pre-hospital emergency care.
Content:	 Lecture topics: History of the origin of the field, development of emergency medicine. Rescue as a field, system of rescue services. Other rescue services (Water IB, Mountain IB, Mining IB, voluntary organizations). Activities of a paramedic, equipment for PNP. Definition of critical, urgent and health limited patient, rescue chain. First contact with the patient, witnesses of the event, collection of information. Basic physical examination, examination of the ABCD principle. Basic vital functions and monitoring in emergency medicine. Cardiopulmonary resuscitation, basic and advanced. Post-resuscitation care. PNP in a patient with respiratory system disorders: respiratory failure due to pulmonary causes, airway management, artificial lung ventilation. Non-invasive pulmonary ventilation. PNP in a patient with respiratory system disorders: acute respiratory failure, aspiration, bleeding into DC, bronchial asthma, inflammatory diseases of DC, ARDS. PNP in a patient with cardiovascular system disorders: chronic and acute coronary heart disease, arrhythmias, hemopericardium. PNP in a patient with cardiovascular disease: collapse, hypertension, aneurysm and arterial dissection. PNP in a patient with a disorder of the cardiovascular system: ICHDK, TEN, coagulation disorders.
	1. Acute examination in PNP evaluation of the situation and basics of ABCDE. Taking anamnesis, physical examination, providing information to doctors, competence in providing information, medical documentation in PNP.

Cardiopulmonary resuscitation training. Ensuring airway patency in the field.
3. Invasive and non-invasive inputs in PNP.4. ECG and monitoring in PNP.
 5. Acute conditions in pneumology - differential diagnosis. 6. Acute conditions in cardiology - differential diagnosis.

MEDICAL RESCUE Summer Term

Faculty:	Faculty of Health Studies
Course title:	Integrated rescue system
Course code:	KZR/IZZ2
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Mgr. et Mgr. Patrik Christian Cmorej, PhD., MHA, Mgr. Jan
	Trpišovský
Term:	summer
Language of instruction:	English
Seminars/exercises:	1/1
Requirements on	80% participation in seminars
student:	Credit in the form of a written test, oral exam
Course goal:	The course is conceived as a theoretical and practical. Students will get acquainted with the issues of IRS and the specifics of cooperation in crisis management. It acquaints all components of the IRS, its staff, their education system, basic activities, cooperation with non-medical emergency services of other institutions that may be involved in dealing with emergencies and crisis situations (KS), especially the activities of the mountain service and water rescue service and others. components of the integrated rescue system. Provides information on emergencies, the role of disaster medicine and mass disasters. Legal aspects concerning the rescue system and critical emergency medicine are also taken into account.
Content:	 Seminar topics: Introduction to the subject, legal regulations, IRS in crisis management and crisis situations. Structure and function of IRS, Central IRS alarm plan and type activities of IRS units. Organization and activity of the Fire and Rescue Service of the Czech Republic within the IRS, rescue and liquidation work, the function of the intervention commander. Organization and activities of the IRS within the IRS, the activities of the IRS in extraordinary events and the organization of the place of intervention during the joint intervention of the IRS units. Organization and activities of the Police and other IRS units. Organization and activities of the Police and other IRS units. Tactical, operational and strategic management of IRS units in a joint intervention. Activities of central and territorial administrative authorities and their bodies, legal and entrepreneurial natural persons in the field of crisis management. Measures to protect the population in case of emergencies. Principles of population behavior in emergencies, individual protection. Tactical and verification exercises.
	 Dread and activities of operational centers of individual IRS units, including simulated training of their function in dealing with emergencies. Excursion to the medical operating center. Demonstration of material equipment for HPZ ZZS solution. Traumatological plan of the region. Simulation and training of emergency management by IRS units. Simulation and training in dealing with emergencies with a focus on emergency medical services and its activities in the context of mass disability. Practical training in the use of personal protective equipment in dealing

 with emergencies with a focus on the function and activities of biohazard emergency medical teams. 8. Model situation of rescue work on a patient with suspected VNN. 9. Model situation of rescue work in a traffic accident with a larger number
of injured persons.

Faculty:	Faculty of Health Studies
Course title:	Professional experience I
Course code:	KZR/01Z2
Level of course:	bachelor
ECTS:	6
Teacher:	Mgr. Alena Kohlová
Term:	summer
Language of instruction:	English
Lectures/exercises:	160 hours
Requirements on	Form of verification of study results:
student:	Written confirmation of the completed number of hours of professional practice by a mentor in the Record of Professional Practice
	Requirements: Proof of performance of the required services according to the Record of Professional Practice 100% attendance (possible absence from professional practice must be completed in an alternative period according to the agreement with the guarantor of the internship and mentor of the relevant workplace)
Course goal:	The aim of the course is to build on the knowledge and experience of previous nursing-oriented subjects and use them in the conditions of clinical practice. During the course, the student, under professional mentoring (contractually provided) gradually acquires the correct procedures of basic nursing care according to valid nursing standards and adapts to work in the chosen field. They learn to work through the nursing process. Part of the practice is training in communication with both patients and other members of the medical team, care for the mental well-being of patients, training in education and ensuring patient compliance.
Content:	 Focus of professional experience: Familiarization with the organization of the department, prevention of nosocomial diseases. Care of the patient's environment in the ward, care of the bed, ensuring rest, sleep, positioning the patients. Collection of nursing anamnesis, assessment, use of measuring scales. Performing hygienic care. Ensuring preventive procedures of the immobilization syndrome. Monitoring of physiological functions (TT, TK, D, SpO2, control of the state of consciousness). ECG curve recording, basic parameters for its evaluation. Preparation of the patient for the examination. Care of a patient with pain. Collection of biological material: urine, stool, sputum, gastric and duodenal contents, swabs, swabs, collection of capillary and venous blood. Ensuring the emptying of urine. Catheterization of a woman's bladder. Eare of stoma performed in the intestine. Acceptance and control of medicinal products, handling. Administration of drugs orally, in cavities, mucous membranes, skin, respiratory tract, principles of administration of opioid analgesics. Application of intradermal, subcutaneous injections, intramuscular injections. Intravenous drug administration. Infusion therapy. Assistance in transfusion therapy. Nutrition - parenteral and enteral. By person. Serving food. Treatment of acute wounds, assistance with bandages. Prevention and treatment of chronic wounds.

а	administration. Infusion therapy.
2	21. Care of drains and drainage systems, selected types of stoma,
ir	ncluding sampling of biological material.
2	22. Perioperative care.

Faculty:	Faculty of Health Studies
Course title:	Transcultural nursing
Course code:	KZR/TRZ2
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Alena Kohlová
Term:	summer
Language of instruction:	English
Exercises/seminars:	1/1
Requirements on student:	Attendance at seminars (min. 80%) Seminar work Written credit test
Course goal:	The course is conceived as a theoretical and practical. It deals with selected terminology, multicultural diagnostics, basic characteristics and culture of minority groups. It emphasizes the cross-cultural approach of the healthcare professional in caring for patients with different socio-cultural needs and priorities. The course also includes information from the legislative field. The goal is to understand the differences in patient values and beliefs.
Content:	 Seminar topics: Basic conceptual apparatus used in connection with multicultural issues. Multiculturalism, transculturalism. Estnocentrism. Culture shock. National composition of the population of the Czech Republic, development. Attitude of the majority of the Czech Republic to cultural diversity. Exercise topics: Systems of health and medical care for foreigners in the Czech Republic, abroad. Conditions for providing health care in the Czech Republic. Ethical aspects of providing culturally friendly care. Methods of research in a transcultural environment. Leininger theory of culturally identical care. Camphiny-Bacote model. Communication, language and cultural barriers in a multicultural environment. Cultural competence of a healthcare professional. Characteristics of selected ethnic groups living in the Czech Republic.

Faculty:	Faculty of Health Studies
Course title:	Medical psychology
Course code:	KZR/ZPZ2
Level of course:	bachelor
ECTS:	2
Teacher:	PhDr. Otakar Fleischmann, Ph.D.
Term:	summer
Language of instruction:	English
Lectures/seminars:	1/2
Requirements on student:	Credit can be obtained for at least 80% active participation in seminars and for mastering the requirements (written). Oral examination
Course goal:	The course is conceived as a theoretical and practical unit and builds on knowledge from general psychology. It focuses in detail on knowledge related to health psychology, clinical psychology, the application of psychological knowledge in health care, which aims to better understand the behaviour of a sick individual, to understand his needs and the problems that the disease brings to him and his family. It addresses the issue of psychology of sick individuals of all ages in connection with the provision of health care. Stress management affects the management of mental stress and stress in connection with the performance of the profession. The aim of the course is to inform about significant psychological problems related to the change of health status and to prepare students for specific behaviour and reactions of patients / clients in difficult situations.
Content:	 Lecture topics: Psychological problems of the disease. Psychosomatic and somatopsychic relationships. Autoplastic picture of the disease. Experiencing the disease over time, the ratio of patient to disease. Categories of patients / clients from a psychological point of view. Psychological problems of iatropathogenesis. Psychology of pain. Requirements for a paramedic in a patient / client paramedic relationship. Dying and death in terms of psychology.
	 Seminar topics: Principles of professional behavior. Productive behavior of a paramedic. Unproductive behavior of a paramedic. Types of paramedics. Non-adaptive character manifestations of a paramedic. Patient response to illness, injury. Impact of iatropatogenesis on the patient / client. Anxiety, fear and inferiority in the work of a paramedic. Communicating annoying messages.

Faculty of Health Studies
Professional course II
KZR/S2Z2
bachelor
2
Mgr. Alena Kohlová
summer
English
Field experience (40 hours)
Completion of the course
The main goal is to expand knowledge and skills related to other IRS units, with which the paramedic will work closely.
Contents of the course: Water rescue service Water rescue, legislation, prevention and tactics Prevention of hydrology, special types of rescue Swimming training for the rescue service Basics of diving, tools Techniques of approaching the drowning, grasping Drowning - dragging techniques Techniques of taking the drowning out of the water

Faculty:	Faculty of Health Studies
Course title:	Emergency Medicine II
Course code:	KZR/U2Z2
Level of course:	bachelor
ECTS:	3
Teacher:	PhDr. Mgr. et Mgr. Patrik Christian Cmorej, PhD., MHA, MUDr. Ilja Deyl, MUDr. Xaya Waicová,
Term:	summer
Language of instruction:	English
Lectures/exercises:	1/1
Requirements on student:	Min. 80% attendance in seminars Written test
Course goal:	Oral exam The course is conceived as a theoretical and practical complex. It includes comprehensive issues of diagnostics, therapy of acute and critical conditions, includes securing the patient in PNP, his transport and subsequent urgent care within the medical facility, including emergency admission. Students will get acquainted with the principles of air rescue services. An integral part is the issue of war medicine with all aspects of threat, including radiation, chemical and biological, the specifics of injuries - gunshot, devastating, etc. Information is also provided in the field of forensic medicine. The aim is to prepare a paramedic for the theoretical and practical management of the provision of specific nursing care in the area of pre-hospital emergency care.
Content:	 Lecture topics: 1.PNP in patients with nervous system disorders: unconsciousness, convulsions, CMP, intracranial hemorrhage. 2.PNP in patients with nervous system disorders: brain swelling, CNS trauma, intoxication, acute mental states, vertigo and other CNS diseases. 3.PNP in patients with urogenital system disorders: renal colic, renal failure, disorders of the internal environment and ABR, other diseases of URGS. 4.PNP in patients with endocrine disorders: DM, acute conditions, metabolic disorders, thyrotoxic crisis and other acute events in endocrinology. 5.PNP in ENT and dentistry: injuries of the ear, nose, mouth and throat, fractures of the jaw, injuries of the face and foreign bodies, bleeding in dentistry. 6.PNP in ophthalmology: eye injuries, foreign body, glaucoma, other conditions in ophthalmology. 7.Specifics in PNP in geriatric patients: geriatric syndromes. Peculiarities in geriatric care, abuse of the elderly. 8. Infectious diseases in PNP: meningococcal meningitis, encephalitis, HIV, hepatitis. 9. Infectious diseases in PNP: SARS, exotic diseases, epidemic problems. Exercise topics: 1. Acute conditions in neurology. 2. Acute conditions in endocrinology. 3. Acute conditions in endocrinology. 4. Acute conditions in PT and dentistry. 5. Acute conditions in ophthalmology. 6. Acute conditions in ophthalmology.

Faculty of Health Studies
Basics of medical research
KZR/ZVZ2
bachelor
1
RNDr. Karel Hrach, Ph.D.
summer
English
1/1
The basic precondition is the fulfillment of the attendance (min. 80% participation in direct teaching). Another prerequisite is active work (control of the elaboration of continuously assigned tasks using the e-learning system Moodle).
The course is conceived as a theoretical and practical which presupposes the application of knowledge acquired in other professional subjects and also a certain level of creativity. The students will learn to master the basic terminology of research, understand the importance of the basic stages of the research process and be able to use the results of research in rescue practice. The aim of the course is to teach students to participate in research projects and to acquaint them with the basic concepts of statistics (biostatistics) and basic statistical methods that are used in the evaluation of biological phenomena.
 Lecture topics: Basic terms: Survey / research, basic / applied research, qualitative / quantitative, experiment / investigation. Principles and ethics of publishing: Copyright law, citation standards, open access, impact factor. Qualitative research - selected methods (case study, interview). Types and examples of clinical trials and studies. Ethical and legislative aspects of clinical trials and studies (informed consent, GDPR). Questionnaires - standardized questionnaires, pilot surveys. Multiple responses. Likert scale. Quantitative research - population and selection, identifiers and types of statistical quantities. Introduction to data analysis: Gaussian curve, population parameters, statistical hypotheses, level of significance. Time series and its description, characteristics of the disease (database IHIS, CZSO). Publication of scientific results. Seminar topics: Excel: Frequencies, mode, contingency table, bar and pie chart. Excel: Selected examples of parametric tests - paired and two-sample t-test. Excel: Selected examples of other analytical methods - chi-square test, linear regression model. How to choose the topic of the bachelor thesis. Choice of bachelor thesis methodology, practical research.

Faculty:	Faculty of Health Studies
Course title:	Basics of medical management
Course code:	KZR/ZMZ2
Level of course:	bachelor
ECTS:	2
Teacher:	Mgr. Jan Trpišovský
Term:	summer
Language of instruction:	English
Lectures/seminars:	2/1
Requirements on student:	-
Course goal:	The course is conceived as a theoretical. It acquaints students with the basics of modern management in the field of material and human resources, with the basics of quality management of health services and ensuring patient safety, safety at work in health and social care systems, provides information on health and economic issues. Part of the course is the issue of crisis management from the perspective of the security system of the state (tasks of individual bodies, measures to protect the population, preparation for the defense of the state, etc.)
Content:	 Lecture topics: Introduction to management, Health policy, current trends in health care. Health care providers, medical institutions. Levels of management. Personality and role of a manager in an organization / typology, qualities, authority, characteristics of a successful manager /. Management activities / Planning and organizing in a medical facility /. Leadership styles, manager's responsibility, team in healthcare. Public Relations as the main communication tool of a medical facility. Decision-making process in a medical facility, the process of control in healthcare. Quality management, processes and principles. Quality management models in healthcare, ISO, SAK, EFQM, JCIA. Standardization. Internal audit, external audit. Seminar topics: Management structure and leadership of organizations in health care. Ensuring crisis preparedness. Health service providers - emergency medical services, trauma plans, emergency income. Basic components - ZZS, HZS, PČR. Joint interventions of components - STČ - type activities.

Faculty:	Faculty of Health Studies
Course title:	Medical technology
Course code:	KZR/ZTZ2
Level of course:	bachelor
ECTS:	1
Teacher:	Mgr. Martin Kubát
Term:	summer
Language of instruction:	English
Lectures/exercises:	0/1
Requirements on	Participation in seminars (min. 80 %) for getting the credit
student:	Written test
	Verification of practical skills
Course goal:	The course is conceived as a theoretical and practical. It provides summary information on medical devices and medical technology used in various medical facilities. The students will get acquainted with the possibilities of their selection, purchase, installation of the set, ensuring operation, especially from the point of view of the responsibility of paramedics in handling medical equipment.
Content:	 Exercise topics: Measuring and registration diagnostic methods - electrodiagnostic, electrochemical, monitoring options. Measurement of blood pressure - principle. Vital signs monitors. ECG, EEG monitoring, bioamplifier requirements. Defibrillators, principles, indications for use, external pacing, intravascular, cardioverters. Imaging diagnostic methods, principles, thermographic, ultrasound, Doppler and radionuclide. Ultrasound in PNP (cannulation), intraosseous technique. Fixing devices (vacuum mattress, limb splints, neck collars, pelvic girdle, Spencer's plate, head immobilizer). Transport means for pediatric patient incl. premature and pathological newborns, material equipment. Laboratory methods of monitoring in urgent care: glucometry, blood gas testing and ABR, Pointof-care-testing. Artificial lung ventilation, principles, manual breathing apparatus, mechanical ventilation.