



INTERNATIONAL HELLENIC UNIVERSITY (IHU)

*(formerly known as ALEXANDER TECHNOLOGICAL EDUCATIONAL
INSTITUTE-ATEITH)*

**THESSALONIKI, GREECE
SCHOOL OF HEALTH SCIENCES,
FACULTY OF NURSING**

STUDY GUIDE

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INTERNATIONAL HELLENIC UNIVERSITY

Introduction

The International Hellenic University (IHU) is a public, tertiary education institution that was founded by Law 3391 of 2005 and started functioning in 2008 when it received funding from the EU's operational program "Education and Lifelong Learning" and is based in Thessaloniki of Thessaloniki. The University consists of 9 Schools and 33 Departments. It has administration offices in Thessaloniki (Thermi 14o KM. Thessaloniki-Moudanion highway, 57001) with branches in Thessaloniki (574 00 Sindos), Serres, Kavala, Drama, Katerini, Edessa, Kilkis and Didymoteicho.

The IHU was Greece's first public university where programmes were taught exclusively in English comprised three (3) Schools which offered twenty-four (24) master programmes. The two Schools (School of Humanities, Social Sciences and Economics and the School of Science and Technology) of the IHU belong to the University Center of International Programmes of Studies (UCIPS) of the International Hellenic University offering programmes that are taught exclusively in English.

The UCIPS, developed to facilitate modern learning methods, is situated on a 16,000m² campus outside Thessaloniki, the second largest city in Greece with an uninterrupted history of 2,300 years. Our state-of-the-art facilities, such as virtual classrooms, electronic library, IT labs, Digital Manufacturing and Materials Characterization Laboratory and Molecular Ecology/Molecular Biology Lab create an environment conducive for higher learning and research for our students.

Thessaloniki, past and present

The city of Thessaloniki is a cosmopolitan metropolis where ancient and Modern Greek history and culture meet with Europe and Asia. The city was founded in 316 B.C. by Kassandros, the king of Macedonia and was named Thessaloniki, in honor of his wife who was the daughter of Philip II and a half-sister of Alexander the Great.

The city used to be a trading meeting point of the east and the west for centuries. During the 2300 years of continuous existence, Thessaloniki gained economic, strategic and administrative importance. In its long history, Thessaloniki was invaded and conquered by numerous enemies and various nationalities that left traces of their civilization and their culture in the city. Byzantine churches, Roman buildings, Mouslim monuments, Walls, and other archaeological material from different historical periods still exist and bring back memories from a variety of cultures and languages.

The visitor today can visit:

- The white Tower, the symbol of the city, Museum of the city's History and Civilization, built as a defense work in the 16th century
- Numerous Byzantine churches all over the historical center of the city

- The archaeological Museum of Thessaloniki where the important findings from the Royal Tombs of Vergina are on display together with artifacts from Archaic to Roman Times
- The Museum of Byzantine Culture,
- the Folklore-life and Ethnological Museum of Macedonia and Thrace,
- the Museum of Modern Art,
- the Jewish Museum,
- Photography and Cinema Museum,
- Museum of the Balkan/Macedonian wars, etc.



Thessaloniki is a modern and interesting city with a multicultural character. The numerous festivals, conferences, theaters and other events throughout the year together with the various performances at the recently completed Hall of Music, contribute much to the city's commercial and economic development which is further enriched by the annual Trade Fair of Thessaloniki, in the beginning of September.

Living in Thessaloniki is fun and any international student would not feel out of place.

Climate

In Greece you will experience all four seasons. Thessaloniki or Salonica, is by the sea side and so weather is far more humid. This feels colder in winter than it truly is, as temperatures can drop to around 10 °C during the day and there could be snowfall in January or February. You can enjoy winter activities in the surrounding mountains or skiing in nearby northern regions. But, as a coast region Salonica has the benefit of location in summer time. Temperature can heat over 35 °C and you can have all sea sports to enjoy. Overall, the climate is a mild Mediterranean one and you will love travelling inland or around islands.

Driving in greece-transport networks

INTERNATIONAL HELLINIC UNIVERSITY OFFICES/FACILITIES

Career services office

The Career Services Office was established in 1997. It links education with businesses. With this service our Institute aims at the continuous exchange of information between the IHU and the socio-economic environment and records the needs of the market and the ability and skills of the students and the graduates.

It delivers detailed information about:

- Vacancies and offered jobs
- Postgraduate studies and scholarships in Greece or abroad
- Educational seminars

The office organizes various events and Career Days for the different Departments of the University, provides Career Counseling services to a large number of graduates every year, organizes workshops on CV writing, interview skills and the job-search strategies.

Location: Building of healthcare professions (1st floor) Office Hours: 8:00 am – 2:00 pm on weekdays

Tel: (+30) 2310-013 480 Fax: (+30) 2310-013 482

E-mail: career@admin.itoteithe.gr

Student disabilities office

The Students disabilities office of IHU was founded in 2006 in order to provide educational, technological and psychological support and services to students who have documented disability. The office has created a number of basic infrastructures to provide for accessible buildings and an accessible environment around the campus.

The office employees collect all the data about the registered students with disabilities and contact them in order to set an appointment and talk about their problems and needs throughout the academic semester. Moreover, the office organizes different events, tours and visits. Finally, the office has an organized support group of volunteer students who actively help their fellow students.

The office is open Monday-Friday from 8:00–15:00. For more information visit www.amea.teithe.gr or call (+30) 2310-791 465 or e-mail us at amea@admin.teithe.gr

International activities and co-operations office

ERASMUS +

Erasmus+ is the EU's programme to support education, training, youth and sport in Europe. Its budget of €14.7 billion will provide opportunities for over 4 million Europeans to study, train, gain experience, and volunteer abroad.

Initially, set to last until 2020 Erasmus+ doesn't just have opportunities for students. Merging seven prior programmes, it has opportunities for a wide variety of individuals and organizations.

The aim of Erasmus+ is to contribute to the Europe 2020 strategy for growth, jobs, social equity and inclusion, as well as the aims of ET2020, the EU's strategic framework for education and training. Erasmus+ also aims to promote the sustainable development of its partners in the field of higher education, and contribute to achieving the objectives of the EU Youth Strategy.

Specific issues tackled by the programme include:

- Reducing unemployment, especially among young people
- Promoting adult learning, especially for new skills and skills required by the labour market.
- Encouraging young people to take part in European democracy
- Supporting innovation, cooperation and reform
- Reducing early school leaving
- Promoting cooperation and mobility with the EU's partner countries

See more in: http://ec.europa.eu/programmes/erasmus-plus/about_en

The IHU actively joined this program and we co-operate with numerous European Educational Institutes in the following Erasmus activities:

- Student Mobility-SM-Exchange of students for a period of 3 to 12 months
- Teaching-staff mobility-TS-for short-term teaching visits

Organization of Mobility-OM- which organizes and promotes mobility such as:

- Visits for preparation or control of the mobility of the Erasmus Students
- Production and distribution of information material about the activities of Erasmus mobility

– Preparation, supervision and evaluation of student and teaching staff mobility

Preparatory visits (PV) to European Educational Institutes for new co-operations

A European System of Transferring Academic Credits (ECTS)

Intensive Programmes (IP)

New Curriculum Development Projects (PROG/MOD)

Thematic Networks-University Programs of mutual interest.

Location: Building of School of Health, 2nd floor

Tel: (+30) 2310-013 479 Fax: (+30) 2310-013 149 or 152

E-mail: erasmus@teithe.gr Website: <http://www.erasmus.teithe.gr>

Modules for Erasmus Students - Greek Language Teaching Course

Important task of the teaching staff of the centre is the teaching and promotion of the Greek language as a foreign language to the foreign Socrates-Erasmus students. Apart from the Greek language, the course includes information in matters of Greek culture, civilization, history, politics and way of life in Greece. At the end of the semester an educational visit takes place to Archaeological sites and museums in Thessaloniki and Northern Greece.

Five courses are taught in English language by a member of the staff of the Centre of Foreign Languages, as part of the curriculum of the Department of Marketing and Advertising. These courses are: Introduction to Marketing, Marketing, Advertising, Marketing Communications and Multicultural Management.

All Erasmus students of all the Departments may attend these courses and get 2 ECTS credits for each course.

Modules for Erasmus Nursing Students

A number of modules are offered in English every semester.

Facilities and Libraries

Every student has access to computer pools equipped with modern technology. But of course, it is also possible to log in from home via modem. An individual e-mail account is automatically generated as soon a student is enrolled.

Students have access from news magazines to scientific journals and brand new literature of their science through the library (www.lib.ihu.gr) and the School for Health library [tel: (+30) 2310-013 473, fax: (+30) 2310-013 472]. Working hours: Monday–Friday 8:30–17:00. They can use the VPN (Virtual Private Network) of IHU

FACULTY OF NURSING

The Faculty of Nursing is one of the six departments of the School of Health, in Alexander campus, Sindos. The Faculty was established in 1973 under the auspices of post-secondary technological education (KATEE). In 1984, it was upgraded and included into the higher education system as Technological Educational Institute (T.E.I.). Finally, according to Law 2916/2001, all IHU departments are part of the official Greek tertiary education system. Since 2019 the former TEI Departments were included in the International Hellenic University. From 1984 up to today (July 2022) 6859 nurses have graduated from the Faculty of Nursing and approximately 1000 are studying at the time of this study guide has been written (July 2022).

The Faculty of Nursing is sharing rooms within a 2-storey building with the Departments of Physiotherapy and Biomedical Sciences. Alexander campus is situated in the suburb of Sindos, Thessaloniki, roughly 17 km from the center of the city. Public transport (bus 52 and train) is available. Further information of the Department can be found at <http://www.nurse.teithe.gr> and through that you can find all the available links related to the Department.

Aims and Objectives of the Faculty of Nursing

Nursing is a humanitarian science, but also a specialized art that addresses the individual, family and community, within the broad spectrum of health and illness. Nursing involves the ability to provide appropriate care for people with acute and chronic illnesses, both at home and in hospital and to play a vital role in health promotion and disease prevention. Children's nurses work closely with both children and their families helping parents in the care of the children, providing care and support for the whole family. Finally, adults' nurses possess an advanced body of knowledge and skills to deal with the physical and psychological problems of illness, to work with individuals in a diverse range of contexts including hospitals, community or residential settings, rehabilitation centres and mental health institutions and care services.

Consequently, the Faculty of Nursing aims at promoting the development and transmission of scientific knowledge and skills needed through theoretical teaching, laboratory, clinical practice and applied research. The modern nurse requires a wide range of therapeutic and communication skills together with the ability to assess a situation and select the most suitable nursing care plan based upon up-to-date information and evidence based research. Nurses are accountable members of multi-disciplinary healthcare teams and they act as an advocate for the patients interests.

The aim of the Faculty is to provide students with academic knowledge and skills leading to a professional and/or academic career. After their graduation they are ready to work both in the community and hospital sector in all levels of healthcare provision.

Faculty Secretariat

The administrative task of the department is supported by the secretariat. It receives all incoming correspondence that abides by the department protocol. It handles and dispatches all correspondence with the other IHU Schools and Faculties, students and public. It is responsible for taking care of the Faculty's archives and all student records as well as all matters concerning the personnel and students by setting forth all necessary actions. To facilitate students, the secretariat is open all week days from 10:00–12:00 am.

Mr Konstantinos Prodromidis, Head secretary, (+30) 2310-013 500

Ms Thomai Ekonomidou, Head of student affairs (+30) 2310-013 821

Registration-Admission Requirements

Each year approximately 110 graduates of secondary education (Lykeion) are admitted to our department through National Entry Exams. The Faculty also accepts transfer graduates from other Greek Universities.

A number of documents are required (application form, photos, ID or passport, birth certificate, a certified copy of high school diploma as well as registration letter etc.). The registration procedure takes place in the beginning of the fall semester. After your registration, you can collect your student ID number along with passwords and codes for the online services. All new and returning students are required to register themselves in the secretariat and on-line at <http://uniportal.ihu.gr> before the start of each semester. After they have made a provisional choice of modules, they can modify it in two weeks time. If they have not been accepted onto modules (registered), they will not be able to take part in the final exams. It should be noted that students cannot select a course for which they have not successfully completed the prerequisite course(s).

Faculty Administration

The administration is carried out by the Head of the Faculty along with the faculty's General Assembly (GA). The GA consists of all permanent faculty academic and technical staff and student representative.

The Head of the Department is elected every 3 years. Academic staff can be grouped into sectors according to their specialties (pathological, surgical, basic science sectors etc) with a minimum of 5 members in each sector and a sector leader which is elected between the members of the sector every 3 years. Minutes in both bodies are kept by the Head of the secretariat.

Faculty Members

The Faculty of Nursing has more than 1000 students and 14 faculty members. For other than nursing courses, the Department can draw on the faculty of the other IHU departments.

Dr Labrini Kourkouta, Professor
Dr Thalia Bellali, Professor
Dr Kyriakos Kazakos, Professor
Dr Georgios Minos, Professor
Dr Maria Lavdaniti, Professor
Dr Evgenia Minasidou, Associate Professor
Dr Areti Tsaloglidou, Associate Professor
Dr Dimitris Theofanidis, Associate Professor
Dr Theodora Kafkaia, Assistant Professor
Dr Ioannis Moschos, Assistant Professor
Dr Polyxeni Liamopoulou, Lecturer
Kostantinos Koukourikos, Clinical Lecturer
Antigoni Fountouki, Clinical Lecturer

Academic advisor

Two members of the academic staff are responsible for all first-year students as well as for any other student problems that might occur. More specifically, the academic advisor guides and helps the students in:

- Understanding the study program as well as the organizational structure of the school
- Overcoming any difficulties they encounter during their studies and improve their academic performance
- Planning their personal program
- Organizing their studies effectively.

Faculty Activities

The mission statement of the Faculty of Nursing includes:

- Collaboration with nursing and other healthcare institutions

- Conducting research programs
- Provision of updated scientific knowledge
- Organization of seminars and educational meetings for graduate students within the context of continuing education and life-long learning.
- Bilateral collaboration with Universities and other tertiary institutions as well as Healthcare Organization Services from abroad as to promote its graduates' professional establishment and future career. In particular, it has participated in the COMMET, Leonardo da Vinci and Erasmus European Educational programs, including Erasmus Mundus. It also has had collaborated with University Hospitals in the USA (Deborah Hospital, New Jersey, USA) over a ten year period, a program which has been offered to the Department by the AHEPANS association.

Within the Erasmus context students have the opportunity to spend a part of their studies (clinical training experience and attendance of theoretical modules) in European Union countries. Some of the collaborating Institutions are the following:

Universidad Cardenal Herrera (CEU) – Spain

Universidad de Jaen, Spain

NOVIA University of Applied Sciences, Vaasa – Finland

Kemi-Tornio University of Applied Sciences, Kemi – Finland.

As part of the Erasmus program, students have the opportunity to spend part of their internship/studies in countries of the European Union in order to:

- Learn the host language
- Acquire a familiarity with different cultures
- Be exposed to a broad European dimension in their education through other educational methodologies and cultural influences.
- Explore the academic environment and potential work opportunities for postgraduate studies and employment abroad.
- Achieve extra mobility for 3–12 months, apart from studying, in order to work at health care institutions and organizations. Students of our Department have been placed in Finland, Italy, Spain, Portugal, Sweden, Germany and Belgium.

Research co-operations

Members of our department collaborate with many academic institutions and the Department is expanding its European and global perspective, by being involved in many projects.

THE UNDERGRADUATE NURSING PROGRAM AT IHU

Our Educational Philosophy

The aim of our program is to prepare students as knowledgeable and competent nurses by taking account the changes in healthcare needs and provision. The program is based on the fundamental belief that the learning process will be more effective if a student formulates the links between theoretical concepts and practical/clinical experience.

The philosophy of the teaching process incorporates a variety of learning methods, including problem-based learning, evidence-based research, critical incident/case analysis, reflection on practice etc. The role of the professor is that of a resource and facilitator of the learning process. Students are encouraged to discuss their experiences and engage in a question-process as well as to reflect on their own experiences and assume responsibility for their own learning.

Each course of the study program is based on units distributed on the basis of the ECTS (European Credits Transfer System or European System for Transferring of Academic Units).

Audio and visual aids are used to support theory and demonstrate nursing techniques in the laboratories along with text books, notes and articles.

STRUCTURE OF A NEW NURSING CURRICULUM

The curriculum is based on the legislation in force and is structured on the workload (N.3374/2005, Article 14), in accordance with the decision of the Minister of National Education and Religious Affairs (FEK B 1466/13-8-2007). The curriculum is divided into semesters with the fall semester beginning in October and the spring semester beginning in March. Each semester lasts approximately 13 weeks. After each semester there are two/three weeks of exams. An additional exams period is in September and students can give exams for both fall and spring semester modules/courses.

In the New Undergraduate Program (NUP) each module/course is assigned Credits (ECTS). Each Credit Unit represents 30 hours of workload. The workload of each semester is calculated at 900 hours which is equivalent to 30 Credits. The workload in the NUP is 7200 hours. The courses within the scope of nursing science have the greatest workload.

The NUP contains a total of 65 modules/courses of which 43 are compulsory and 22 compulsory elective. In order to graduate with a degree in nursing each student must have successfully completed a total of 53 courses, of which 43 are compulsory and 10 are compulsory electives. The maximum number of courses that the student can attend per the semester is eight (8). Please note that in the new curriculum there are no prerequisite courses (i.e. of previous semesters) for the participation in the course exam of the next semesters.

The courses are classified into 3 categories: General Infrastructure Courses, Special Infrastructure Courses, Nursing Specialty Courses where there are alternative courses. In details, there are a total of 65 courses of which the student is required to attend fifty-three (43 Compulsory Courses and 10 out of the 22 Elective Courses offered). The 53 courses of the program are allocated as follows:

- General Infrastructure Courses: 17 Compulsory and 4 Compulsory Selection
- Special Infrastructure Courses: 9 Compulsory and 12 Compulsory Selection
- Nursing Specialty Courses: 18 Compulsory and 6 Selection Compulsory

Characteristics of the curriculum

- Duration of the course in years: 4
- Type of study: Full-time
- Weeks per year: 38
- Credits/ECTS: 240
- Total workload: 7200 hours

Evaluation method

In theoretical modules, optional tests, assignments and papers can be asked, but the basic assessment is with a final written examination. The written final exam is the main mode of student assessment and it can be in the form of essays or/and multiple choice questions. Laboratory assessment is done via on-going skill assessment (application) and final oral exams. In special circumstances (e.g. students with learning or other disabilities) there is the possibility of oral examination by the tutor and another colleague. Furthermore students are under continuous assessment in their clinical placement.

Grading System

The final grade point average of all courses will be recorded on the degree, according to the following classification scheme:

Excellent: 8,5–10 Very good: 7–8,4 Good: 5–6,9 Fail: 0–4,9

Curriculum-Organization of Studies

The academic program is divided into semesters with the winter semester beginning in September and the summer semester beginning in March.

1st SEMESTER

INTRODUCTION TO NURSING SCIENCE

Module aims

Students will understand the concept of "Nursing" as a science and as a person-centered care process aimed at maintaining, promoting and restoring health. They will also be able to provide the knowledge necessary to contribute to the psychosocial approach and education of patients as a biopsychosocial being. Upon successful completion of the laboratory course, the student will be able to apply communication skills, in the information gathering process such as collecting and accurately recording nursing history data, and plan care according to the Nursing Process. They will also practice taking and documenting vital signs on the chart.

Module outline (THEORY)

- Introduction to Nursing Science: definitions-aims of nursing. Nursing in health and disease. Factors affecting health. Promoting wellbeing in health and illness
- Levels of primary, secondary and tertiary prevention. A holistic approach to health.
- Basic human needs: individual, family, community. Individual defense mechanisms
- Communication process, types of communication, influencing factors
- Communication in Nursing Process, factors that promote effective communication. Development of therapeutic skills and communication techniques
- Physical examination, vital signs. Practice
- Study and documentation of vital signs chart. Practice
- Nursing Process: stages of Nursing Process, documentation, characteristics of Nursing Process
- Nursing assessment, methods of data collection (observation, interview, nursing history)
- Nursing Diagnosis: Statement, Validation and Hierarchical Ordering of Nursing Diagnoses.
- Recording of Nursing Care Plan. Student practice
- Review course

Written exams

Module outline (LAB)

- Communication. Types of communication and scenarios. Establishing a therapeutic relationship and therapeutic environment.
- Communication and nursing process. Development of therapeutic communication skills and techniques-avoiding barriers. Practice.

- Nursing Process. Stages, characteristics, documentation, recording, exercises with concrete examples (NANDA and NOC nursing diagnoses)
- Physical examination. Taking and recording Vital Signs, thermometric chart, student practice.
- Principles of asepsis, antisepsis, sterilization. Hand hygiene, Sterile gloves.
- Methods of administering medicines, instructions abbreviations, filling in the medicine card.
- Review course
- Lab Evaluation

Written exams

ANATOMY I

Module aims

The aim of the module is to familiarize students with the fundamental concepts of human body anatomy, specifically the composition, shape, size, morphology and position of tissues and organs, as well as the topographical and functional interaction between them. Students can combine the knowledge provided and apply it to the live human being (healthy and ill).

Module outline (THEORY)

- Human cell structure
- Tissues of the human body
- Epithelial tissue
- Marrow tissue
- Muscle tissue
- Nervous tissue
- Organs and systems of the human body. Introduction
- Respiratory system
- Circulatory system
- Gastrointestinal system
- Urinary system
- Genital system

Module outline (LAB)

Students practice with models, charts and illustrations, using modern presentation technics to understand the morphology, position and interaction between the organs and systems taught in the theoretical part.

Written exams

PHYSIOLOGY I

Module aims

The aim of the module is for the students to acquire knowledge of the normal function of human body and its systems and to familiarize them with the physiological mechanisms at the cellular and tissue level

Module outline (THEORY)

Composition and normal function of human body cells and the individual systems of the human body systems are described. More specifically:

- Human cell
- Fluids interaction
- Hematopoietic tissue - Physiology
- Blood circulation - Physiology
- Respiratory system – Physiology
- Urinary system - Acid-base balance

Written exams

Module outline (LAB)

Students practice with models, charts and illustrations, using modern presentation media to understand the physiology of the human body systems taught in the theoretical part.

Written exams

BIOLOGY

Module aims

The aim of the module is to enable students to understand the principles of biology and the basic biological mechanisms as well as the fundamental principles of molecular biology.

Module outline

Introduction to Life Sciences: The way all organisms share certain properties. Cells: the fundamental units of life. The way organisms interact with their ecosystems. Species organization into groups. Evolution through natural selection.

Life chemistry: Chemical composition of living matter. Carbon and the molecular diversity of life. Structure and function of large biological molecules.

The cell: The fundamental unit of life. Description of the cell. Introduction to metabolism. Cellular communication. The cell cycle.

Energy and Life: Energy flow through an ecosystem.

Cellular respiration: Aerobic respiration, Anaerobic respiration, Fermentation.

Chromosomes and Heredity: Sexual or Genetic Reproduction, Inbreeding or asexual reproduction, Number and structure of chromosomes, Metaphase, Mitosis, Cytokinesis, Karyotype, Reduction, Independent gene transfer, Random insemination, Non-segregation, Basic principles of Mendelian genetics, Punnett's square, Multigene inheritance, Linked genes, Genetic recombination, Phylogenetic inheritance, Cloning, Nuclear transplantation, Stem cells

DNA: The life molecule, DNA replication and repair. From gene to protein, Genetic information flow, Genetic code, Regulation of Gene Expression, Mutations and Metalaxigens, Point mutations, Reading frame shift mutations, Proto-tumor genes, Oncogenes, Growth factors, Tumor suppressor genes, Cancer.

Biotechnology. Genetic Engineering, Gene Cloning, DNA Synthesis, Transgenic Animals and Cultures, Genetically Engineered Foods, PCR Technique, Short Sequential Repeats STR, STR Analysis, Human Genome Project, Gene Therapy.

Biodiversity - Microscopic organisms. Biogenesis, Territories, Prokaryotes, Ancient, Useful & Harmful Bacteria, Plasmids, Intermingling in eukaryotic cells, Protists, Structure of viruses, Bacteriophage lytic and lysogenic cycle, Collection of viruses, Structure, life cycle and anti-HIV drugs, Prions, Viroids.

Biodiversity - Fungi and plants. Fungi as decomposers, Fungal collection, Fungal reproduction.

Systems of the human body. The body stands in a structural hierarchy, Different types of tissues in the human body, Homeostatic mechanisms, Negative - Positive feedback, Food intake and processing - balanced and unbalanced diet, Respiratory, Circulatory, Immune, Endocrine, Nervous, Urinary, Reproductive system.

Written exams

MICROBIOLOGY

Module aims

The aim of the module is to enable students to understand the principles and basic concepts of Microbiology. They should know the biology of microorganisms, immunology of infections, bacterial and viral pathogens, fungi and parasites of medical importance, as well as the infection diagnosis, treatment and control.

Module outline

Microbiology and Medicine. Microorganisms & infection, Hygiene, treatment and prevention of infections, sources & transmission of infections.

Structure & Morphology of Microorganisms. Prokaryotic & Eukaryotic cells, Anatomy of bacterial cell, Nature & Composition of viruses.

Classification, Identification and Standardisation of Microorganisms. Classification, Methods of Classification, Classification in Clinical Practice, Identification of Microorganisms, Methods of Indirect Identification, Standardization of Bacteria.

Bacterial growth, physiology and death of bacteria.

Antimicrobial Medicines. Antibacterial, Antifungal, Antiviral, Antiparasitic drugs, Sensitivity testing.

Microbial Genetics. Structure of Genetic material & Regulation of bacterial cell, Mutation, Genetic transport, Plasmids, Genetic map, Genetic basis of antibiotic resistance, Applications of Molecular Genetics.

Virus-cell interactions. Cytolytic or Cytotoxic growth cycle, Non Cytolytic productive cycle, Atypical (Non productive) cycle, Latent phase, Transformation.

Immunology principles: Antigens & their identification. General properties of antigens, Antigenic specificity, Immunoglobulins, Antigen Identification, Major histocompatibility complex.

Physical & Acquired Immunity. The Immune System, Natural, Acquired, Chemical & Cellular Immunity, Immunodeficiency, Hypersensitivity, Autoimmunity.

Immunity & Viral Infections. The Response to Viral Infections, Immunopathology, Vaccines.

Parasitic Infections: Pathogenesis & Immunity.

Immunity to bacterial infections.

Infections by Pathogenic Bacteria.

Viruses and Infections.

Pathogenic Fungi - Parasitic infections.

Written exams

BIOSTATISTICS

Module aims

The aim of the module is to enable students to understand the basic methodological issues related to applied research within the biomedical sciences field. Students are taught descriptive and inferential statistics, statistical measurements and techniques, research methodology and basic sample techniques and organizing field research in biomedical studies. Finally, they are taught how to present the research results through tables and charts.

Module outline (THEORY)

- Study design. Sample and population, sampling error, data collection, types of sampling and study design.
- Data collection and analysis. Data file format, data import, analysis, file management (Excel, SPSS), results management.
- Descriptive Statistical Analysis - Descriptive measures: Positional or Central tendency measures (Mean, Median, Mode. Percentiles, Quartiles), Measures of variance (Range, Variance, Standard deviation-Std., Standard error-S.E. OF-mean, Coefficient of variation, Interquartile Range-IQR, Skewness, Kurtosis), Measures of

dispersion (Range, Variance, Standard deviation, Standard error-S.E. of mean, Coefficient of variation, Interquartile range-IQR, Skewness, Kurtosis).

- Creating and editing of graphs. (Histogram, BarChart, Boxplot, Piechart, Scatterplot).
- Test of Normality - Graphical methods (Normal curve on Histogram, P-PPlots, Q-QPlots, Boxplot), Statistical tests (Kolmogorov-Smirnov, Shapiro-Wilk).
- Case control. Null hypotheses, degrees of freedom.
- Statistical analysis using Crosstabs. Chi-square test as a test of independence - Contingency coefficient (Phi & Cramer's V).
- Use of the chi-square test for testing homogeneity (One sample Chi-Square test).
- Correlation analysis: parametric correlation of quantitative variables (Pearson's r), Non-parametric correlation of quantitative & qualitative variables (Spearman's rho, Kendall's tau-b).
- Statistical tests for comparison of means (t-test) - Comparison of a mean value against a predetermined numerical value (One sample t-test) - Comparison of means of two independent samples (Independent samples t-test) - Examination of differences between two means of correlated values - Paired samples (Paired Samples t-test).
- One-way analysis of variance (ANOVA).
- Two-factor analysis of variance (Two way ANOVA)
- Non-parametric Statistical tests for data comparison - Comparison for one sample (Wilcoxon signed-rank) - Tests of two independent samples (Mann-Whitney U, Wilcoxon W) - Tests of two correlated samples (Sign, Wilcoxon Signed-rank, McNemar) - Differences between several independent groups (Kruskal-Wallis H, Jonckheere-Terpstra).
- Analysis of Covariance (ANCOVA)
- Cronbach's alpha reliability test.
- Exploratory Analysis - Principal Component Analysis (PCA).
- Linear Regression Analysis. Hierarchical Regression Analysis.
- Multivariate Analysis of Variance (MANOVA).

Written exams

Module outline (LAB)

Using a statistical program (SPSS, PSPP), the tests taught in the theory of the course are applied to health sciences data.

Computer-based final exams using commercial statistical data analysis packages (SPSS, PSPP).

HEALTH PSYCHOLOGY

Module aims

The aim of the module is to raise students' awareness of health as a multifactorial phenomenon, as well as of illness through its psychosocial dimensions. Teaching of various chronic diseases will be carried out through psychological theories that explain behavioral patterns and link mental states to the functions of body physiology, with particular emphasis on the influence of stress on the development of psychosomatic diseases.

Module outline

- Basic principles and knowledge of Psychology
- Introduction to health psychology: Holistic approach of health-Biopsychosocial model of health
- Personality and psychological theories (psychodynamic, behavioral, cognitive, humanistic, and systemic approach). Critical review of theoretical approaches and therapeutic interventions for children/adolescents and adults.
- Psychosomatic illness and stress. Psychological reactions of the patient.
- Management of pain as a biopsychosocial approach
- Communication between patients and health professionals in the hospital: Adherence to medical-nursing guidelines.
- Chronic diseases and psychological interventions (diabetes mellitus, rheumatoid arthritis, cardiovascular problems, etc.)
- Patients with cancer: Quality of life during at all stages of the disease
- Loss - Grief and Mourning
- Health professionals grief: empowerment and self-care

Written exams

2nd SEMESTER

ANATOMY II

Module aims

The aim of the module is to teach students the basic principles of human anatomy, namely the composition, shape, size, morphology and position of tissues and organs, as well as their topographical and functional relationship. This is intended to reinforce and improve the knowledge provided so that the student can extend and integrate the knowledge of anatomy with the living healthy and ill human being. Anatomy is the cornerstone upon which all education in medical science is based.

Module outline (THEORY)

- Nervous system
- Sensory organs
- Endocrine glands
- Endothelial system
- Anatomic terms in relation to their functional meaning

Written exams

Module outline (LAB)

Students practice on models, tables and images, using modern presentation technics to understand the morphology, position and interaction between the organs and systems taught in the theoretical part.

Written exams

PHYSIOLOGY II

Module aims

The aim of the module is to teach students the normal function at the cellular level of specialized cells (muscular, neural, and heart cells), as well as the coordinated function of human organs and systems.

Module outline

- Physiology of neural and muscular cell
- Physiology of heart muscle
- The nervous system (central and peripheral)
- Digestive system – Nutrition- metabolism
- Endocrine glands (thyroid, parathyroid, pancreas, adrenals, reproduction)

Written exams

FUNDAMENTALS OF NURSING SCIENCE

Module aims

The aim of the module is to familiarize students with the basic principles of nursing care for the treatment of patients with pathological and surgical health problems.

Module outline (THEORY)

- General information on hospitals. Hospital: purpose and function of a modern hospital, Types of hospitals, inpatient unit, wards, outpatient clinics. Patients' physical environment
- Patient admission to the hospital.
- Inpatient unit, organization, ward, equipment.
- Infection control. Principles of asepsis - antisepsis and sterilization.
- Hospital acquired infections and criteria for their recording. Mission of hospital infection committee. Centre for Disease Control and Prevention (CDC). Preventive, therapeutic, supportive measures – pressure sores. Key positions of bedridden patients - Prevention of bedsores.
- Treatment of bedsores.
- Nursing Process in surgical patients: pre and post operative care
- Postoperative complications of circulatory, digestive, respiratory and urinary system
- Surgical trauma: General principles of wound healing - prevention of infections.

Written exams

Module outline (LAB)

- Structure of a hospital ward (equipment). Making a simple bed, student training
- Bed making with a patient in a lateral position, student training
- Surgical bed making, pre- and post- operative nursing care, student training
- Surgical instruments, preparation of sterile instrument pack, student training
- Sterile gloves and handling of sterile items, student training
- Pressure sores: prevention, care, student training
- Surgical wound care, student training
- Administration of medications through rectal route, student training
- Personal hygiene, bed bath, care of the oral cavity, student training
- Methods of administering medicines, abbreviation of instructions, filling in medicine cards, student training

Oral exams/practice

COMMUNITY NURSING I/ HEALTH PROMOTION

Module aims

The aim of this module is to highlight the scope of community nursing as well as the role and interventions of the community nurse. In particular, students should understand the concept of prevention and health promotion and acquire the knowledge necessary to inform and educate families or groups in the community.

Module outline (THEORY)

- Introduction, definitions (health, community)-scope and characteristics of public and community health nursing
- Health trends in the western world and social changes affecting community health
- Nursing theories underlying community nursing
- Health promotion and risk reduction - Use of epidemiology in disease control and prevention
- Concepts in family health risk-Significant family health risks and nursing interventions
- Assessment of social groups needs in the community (nursing care of children and adolescents, elderly, other vulnerable populations)
- Environmental health
- Violence in the community (child and elder abuse)
- Access to secondary/tertiary care (structures, decentralization)
- Nursing interventions in the community, co-operation with other health care professionals- Community health sectors

Written exams and essay

Module outline (LAB)

Visits/clinical placement to Primary Health Care Services

INTERNAL MEDICINE I

Module aims

The aim of this module is to provide nursing students with knowledge about diseases of various systems of the human body. Students will become familiar with the basic pathogenic mechanisms of diseases causation and modes of transmission, current methods of diagnosis, direct and indirect complications of diseases, their therapeutic approach and the required preventive and protective measures.

Module outline

- Introductory concepts and definitions
- Classical methods of clinical approach, such as inspection, percussion, auscultation, palpation. Diagnosis and differential diagnosis. Modern laboratory methods, such as ultrasound, CT and MRI, gamma scan and PET scan.
- Haematopoietic diseases: anaemias, leukaemias, lymphomas.
- Diseases of the digestive system: peptic ulcer, gastro-oesophageal reflux disease, pancreatitis, biliary diseases, hepatitis, liver cirrhosis.
- Respiratory diseases: bronchial asthma, chronic respiratory lung disease community pneumonia.
- Infectious diseases: mode of transmission, prophylaxis and diagnostic approach and treatment of the main infectious diseases prevalent in the Greek population
- Most common types of neoplasms

Written exams

PHARMACOLOGY

Module aims

The aim of the module is to understand the basic principles of safe and effective drug administration for the most common diseases in a clinical setting. Students will become familiar with the actions, effects, side effects and interactions of drugs with other drugs. The student will have the ability to recognize side effects depending on the clinical condition of the patients.

Module outline

- Introductory concepts and definitions. Use of medicines. The role of nurses in drug administration. Nurses and pharmaceutical services.
- Drug effect mechanisms on human body. Factors affecting the degree of safety and efficacy of drugs. Drug interactions.
- Pharmacokinetics. Drug administration routes. Side-effects. Development of new medicines.
- Drugs affecting the Central Nervous System. General anaesthesia, local anaesthetics and resuscitation. Epilepsy and Parkinson's disease. Antipsychotics, anxiolytics and hypnotics. Antidepressants and dementia. Drug dependence.
- Endocrine system. Hypothalamic and pituitary axis. Hormones and metabolism: thyroid, parathyroid glands, calcitonin, insulin, diabetes mellitus, adrenal glands, hormones and reproduction.
- Drugs affecting the Circulatory System. Drugs treating angina. Drugs for heart failure. Antihypertensive drugs. Drugs used in Cardiovascular Arrhythmias. Drugs acting on Blood Coagulation. Drugs for Dyslipidemia. Practice, dose calculation.
- Drugs affecting the digestive system. Emetics and antiemetics, (Practice, dose calculation.

- Analgesia with narcotic substances
- Anti-inflammatory drugs and local hormones.
- Antibiotics (mode of action - β -lactam antibiotics - Aminoglycosides - Quinolones - Tetracyclines - Antibiotics against anaerobic microorganisms). Practice, dose calculation
- Antifungals, antivirals
- Drugs affecting the respiratory system. Practice, dose calculation.
- Drugs used in the treatment of neoplasms. Chemotherapeutic drugs

Written exams

3rd SEMESTER

INTERNAL NURSING I

Module aims (THEORY)

The aim of the module is to provide students with the appropriate knowledge about medical problems of the haematopoietic tissue, digestive and respiratory systems and the problems of patients with diabetes mellitus. Upon successful completion of the theory module, the student will be able to conduct a comprehensive nursing assessment of the patient utilizing sources of information from the patient and the patient's environment. The student will also be able to identify the problems of the pathological patient, formulate nursing diagnoses, deliver nursing care goals, and evaluate nursing care outcomes.

Module outline (THEORY)

- Obtaining a nursing history of a pathological patient
- Nursing process: assessment of the patient's problems, formulation of nursing diagnoses, nursing interventions, evaluation of interventions.
- Clinical manifestations, interventions, nursing diagnoses & interventions, assessment of nursing care outcomes to the following:
 - Upper digestive tract disorders
 - Lower digestive tract disorders
 - Gallbladder and pancreas diseases
 - Liver diseases
 - Disorders of the upper respiratory system
 - Lower respiratory tract disorders
 - Diabetes mellitus
 - Endocrine gland disorders

Written exams

Module aims (LAB)

Upon successful completion of the laboratory module, the student will be capable of providing nursing care to patients hospitalized in pathological and surgical units.

Module outline (LAB)

- Medications/Drugs (definition): general principles of drug administration, administration routes, dosages
- Subcutaneous, endodermal injections. Student practice

- Drug preparation. Aspirating techniques from ampoule, intramuscular drug administration. Student practice
- Dose calculation of drugs, drug dissolution, aspiration from vial. Student practice
- Blood collection. Student practice
- Administration of intravenous solutions (types, specifics, flow calculation). Student practice
- Venipuncture, connection to intravenous solution. Student practice
- Oxygen therapy (types of oxygen administration devices)
- Review course
- Clinical placement in medical wards

Oral exams/practice

SURGICAL NURSING I

Module aims (THEORY)

The aim of the module is to enable students to apply the nursing process to surgical patients, to assess the needs of surgical patients based on the knowledge they have acquired and to plan and provide quality nursing care. Particular emphasis is given to the process of nursing diagnosis, nursing interventions and their evaluation based on current literature in the context of evidence-based nursing practice. Upon successful completion of the theory module, the student will be able to conduct a comprehensive nursing assessment of the patient utilizing sources of information from the patient and the patient's environment. The student will also be able to identify the problems of the surgical patient, formulate nursing diagnoses, specify nursing care goals, and evaluate nursing care outcomes.

Module outline (THEORY)

- Introduction to surgical nursing: perioperative stages, classification of surgical operations, post-operative complications
- Introduction to surgical nursing: students practice on applying nursing care in a patient undergoing surgery
- Clinical manifestations, interventions, nursing diagnoses & interventions, assessment of nursing care outcomes to the following:
 - Upper digestive tract disorders
 - Lower digestive tract disorders
 - Gall bladder and pancreas diseases
 - Liver diseases
 - Disorders of the upper respiratory system
 - Lower respiratory tract disorders
 - Endocrine gland disorders

- Water and electrolyte disorders
- Burn disease

Written exams

Module aims (LAB)

Upon successful completion of the laboratory module, the student will be capable of providing nursing care to patients hospitalized in surgical wards and units.

Module outline (LAB)

- Medications/drugs (definition): general principles of drug administration, administration routes, dosages
- Subcutaneous, endodermal injections. Student practice
- Drug preparation. Aspirating techniques from ampoule, intramuscular drug administration. Student practice
- Dose calculation of drugs, drug dissolution, aspiration from vial. Student practice (two courses)
- Blood collection. Student practice
- Administration of intravenous solutions (types, specifics, flow calculation). Student practice
- Venipuncture, connection to intravenous solution. Student practice (two courses)
- Oxygen therapy (types of oxygen administration devices)
- Review course
- Clinical placement in surgical wards

Oral exams-practice

SURGERY I

Module aims

The aim of the module is to provide students with the necessary knowledge for the recognition of the semiotics of organ-specific surgical conditions, their surgical treatment and the provision of appropriate nursing care. Upon successful completion of the theory the student will be able to identify surgical conditions and how healthcare professionals approach patients for diagnosis and provision of nursing care.

Module outline

- Pre-operative preparation and assessment of patient - complicating factors and comorbidities
- Anaesthesiology elements

- Post-operative care, general post-operative complications, prevention & treatment
- Surgical diseases: types of surgery, breast diseases - stomach diseases - duodenal diseases
- Vein thrombosis, pulmonary embolism, thromboprophylaxis
- Shock - types – treatment
- Colon and rectal diseases
- Pancreas and gall bladder diseases
- Acute abdomen - acute appendicitis - peritonitis – ileum
- Cardiac surgery
- Burns - chest injuries

Written exams

HEALTH SOCIOLOGY

Module aims

The aim of the module is to help students understand the social characteristics of illness, the experience of illness, the dynamics of relationships within the healthcare system, and the limitations and prospects of professional care. Developing critical thinking skills through the study of this discipline can enhance nurses' self-awareness to provide contemporary and non-discriminatory person-centered care. Thus, the nursing profession, which presupposes privacy, confidentiality and close interpersonal relationship with patients, is also approached from a sociological perspective, which supports and accepts the influence of social dynamics in its practice.

Module outline

- Introduction to Health Sociology. Distinctions of Health Sociology. Sociology of illness - health services - the therapeutic relationship - quality of life - bioethics.
- Sociology of illness. Health and illness. Basic conceptual approaches. Perceptions, attitudes and behaviors towards health.
- Sociology of illness (continued). Inequalities and differences in health. Income inequalities and life expectancy. Inequalities in the health status of the population. Inequalities in the supply and use of health services. Injustice and stressful life events. Stress and illness. Health care seeking.
- Sociology of health services. Health services in society. Hospital - "business": dilemmas. Leadership and management.
- Sociology of health services (continued). Communication and quality of health care. Medical records and health care records.
- Sociology of the therapeutic relationship. Social roles in the therapeutic relationship between doctor and patient. Similarly, in the relationship between nurse and patient.

- Sociology of quality of life. Health and quality of life. Social indicators of quality of life. Inconsistency of assessments between subjective and objective dimensions of quality of life. Limitations of quality of life assessments.
- Quality of life in patients with cancer, HIV, heart problems, Alzheimer's disease, renal problems
- Sociology of bioethics and deontology. Basic principles of bioethics. Informed consent. Ability to perceive information. Decision making. Concealment of truth. Trust and medical confidentiality.
- Sociology of bioethics (continued). Euthanasia and assisted suicide, experimental medical research, palliative care, therapeutic futility
- Sociology of bioethics (continued). Organ transplantations. Assisted reproduction. Cloning
- Sociology of bioethics (continued). Conflict of interest. Dilemmas of resources allocation and therapeutic effectiveness

Written exams

NURSING THEORIES

Module aims

The aim of this module is to help students understand the concept of theory, the importance of nursing theories in clinical practice and the extent to which information obtained from theories can be used in nursing research and administration. Through tutorial exercises, students will have the opportunity to apply the knowledge gained from the theories with clinical practice examples.

Upon successful completion of the theory, the student will be able to state the key points of nursing theories, name the basic principles of each nursing theory, and identify the main characteristics of the theories.

Module outline

- Introductory concepts of nursing theories. Their usefulness in nursing.
- The importance of theory in nursing - The development of theory in nursing. Stages of development of theory in nursing
- F. Nightgale's theory -Theories of nursing based on human needs
- D. Orem's theory of the self-care deficit
- F. Abdelah's theory -Patient-centered approaches to nursing.
- V. Henderson's theory. The principles and practice of nursing
- B. Newman's theory. Newman's systems model.
- M. Rogers' theory. The science of Unitary Human Beings (SUHB)
- C. Roy's adaptation model
- I. King's systemic framework and theory of goal attainment

- J. Watson: Watson's philosophy and theory of transpersonal caring
- M. Leininger: The cultural care theory of diversity and universality

Written exams

COMMUNICATION IN HEALTHCARE

Module aims

The aim of the module is to raise students' awareness of the nature of the therapeutic relationship and the importance of effective communication between patients and health professionals, as well as to acquire the necessary knowledge and skills that will contribute to the effective approach and support of patients and their families in the various phases of illness.

Module outline

- Theoretical models of communication: Definitions, concepts and basic principles
- The usefulness of counseling to health professionals
- Theories of nursing and counseling psychology. Nursing roles: Counseling in health prevention/promotion and disease control.
- Active listening skills for effective nurse-patient communication.
- Patient approach: the first encounter, key elements of professional appearance and behavior.
- Communication skills to understand the patient's subjective experience
- Specialized counseling and communication issues:
 - intercultural specificities of patients
 - communication with different age groups
 - managing 'difficult' emotions and reactions of patients and relatives
 - outreach to families seeking organ donation.
- The theory of Transactional Analysis and its usefulness in communicating with colleagues, patients, etc.
- - Communicating unpleasant news to the patient and family
- - The "care" of the health care professional. Burnout, supervision and support.

Written exams

BLOOD DONATION IN NURSING

Module aims

The aim of the module is for students to understand the work of the hospital's blood donation services and to become familiar with the laboratory tests and newer techniques used in the blood donation departments. Students will understand the

concept of blood donation (blood donation, volunteering), the department and its standard laboratory procedures (blood collection). They will also gain knowledge about blood transfusion, its processing and the preparation of derivatives (concentrated red blood cells, leucocytes, plasma, platelets), preservation and conservation of blood and its derivatives. Upon successful completion of the theory, students will be familiar with blood group systems, as well as their antigens and antibodies, and will understand the direct and indirect complications of blood transfusions and hemolytic disease of the newborn. In addition, they will enhance their knowledge of transfusion-transmitted diseases (mode of transmission, control, prevention) and emerging (due to climatic and other changes) diseases that in the near future may threaten the safety of transfused blood and its derivatives (West Nile virus, malaria, etc.). Finally, they will be introduced to the concept of blood vigilance.

Module outline

- General principles of blood donation, organisation of blood donation (premises - equipment - staffing)
- Blood - blood components (blood elements, plasma)
- Immunohaematology - blood groups (erythrocyte membrane - antigens)
- ABO -Rhesus system - other antigenic systems (e.g. Kell)
- Direct and indirect Coombs test, crossmatch test (blood application form, samples, blood groups and bag selection), HLA histocompatibility
- Selecting donors, attracting and retaining volunteer donors. (donor selection, pre-donation laboratory testing, donor history, donor exclusion (permanent, temporary), donor categories (volunteer, relative, autologous), ways to attract and retain volunteer donors)
- Collection of blood for donation. Technique of blood collection. Venipuncture. Reactions and immediate actions. Actions before, during and after blood collection, antisepsis, marking of bags, accompanying tubes, handling of bags before, during and after blood collection, mobile blood collection teams, complications of blood collection (local, generalised), prevention and management of immediate side effects. Blood removal (therapeutic or not).
- Production and preservation of blood factors (whole blood, concentrated red blood cells, plasma, platelets, preservation)
- Transfusions. Indications, adverse effects of transfusion, transfusion-transmitted diseases, autologous transfusion.
- Blood diseases

Written exams

4th SEMESTER

INTERNAL NURSING II

Module aims (THEORY)

The aim of the module is to provide students with the appropriate theoretical knowledge about the pathological problems of the cardiovascular, urinary and musculoskeletal systems, as well as the sensory organs. After successful completion of the theory module, students will be able to assess the health status of patients with pathological problems of the above systems, to learn the function of each system separately and in combination with the other systems and to evaluate the problems that arise.

Module aims (LAB)

Upon successful completion of the laboratory module, students will have acquired the necessary knowledge and skills to be able to provide nursing care to patients hospitalized in pathology and surgical departments.

Module outline (THEORY)

- Introduction to pathological nursing II (anatomy, physiology)
- Cardiovascular system: Coronary disease, heart arrhythmias, cardiac arrest, microbial endocarditis, pericarditis, cognitive heart failure, acute pulmonary oedema, cardiogenic shock, diseases of heart valves. Vascular events, aorta diseases, peripheral vascular diseases, arteriosclerosis and atherosclerosis, obstructive thromboangiitis, thrombophlebitis and venous thrombosis, varicose veins and hypertension
- Urinary system: renal failure (acute & chronic), acute pyelonephritis, glomerulonephritis, nephrotic syndrome, andronephrosis, urolithiasis, renal tumors, prostate hypertrophy, Ca prostate
- Musculoskeletal system: Plaster bandage conservative treatment and tractions. Fracture, intervertebral disc herniation, neoplasms, acute haematogenous osteomyelitis, osteoarthritis of the hip, gout, osteoporosis, Paget's disease, rheumatoid arthritis
- Sensory organs: Visual, hearing and speech disorders. Eye diseases, such as blepharitis, crythe, chalazion, conjunctivitis, refractive errors and blindness. Ear diseases, such as otitis (acute & chronic) external and middle ear, Meniere's disease, labyrinthitis, deafness & deafblindness. Nasal diseases, such as rhinitis, rhinitis, dodecanthias and sinusitis. Throat diseases, such as pharyngitis, tonsillitis, adenoid gland hypertrophy. Laryngeal diseases, such as laryngeal edema.

Written exams

Module outline (LAB)

- Placement of a nasogastric tube

- Treating bedsores
- Wound care
- Bladder catheterisation in males and females (with one and two nurses)
- Collection of aseptic urine, bladder irrigation (open and closed)
- Renal Replacement Therapies: dialysis and its variants, peritoneal dialysis
- Electrocardiogram (ECG) (performing & identifying basic abnormalities)
- Paracentesis for therapeutic and/or diagnostic purposes (thoracic, lumbar, abdominal, osteomyelitis): materials, preparation, patient care after paracentesis
- Stoma care (colostomy, ureterostomy, gastrostomy, ileostomy)
- Review course
- Clinical placement

Oral exams-practice

SURGICAL NURSING II

Module aims (THEORY)

Upon successful completion of the theory module, the student will acquire the necessary knowledge about the basic principles of surgical nursing. They will also be able to apply nursing interventions (pre-operative and post-operative interventions) using the nursing process and creating corresponding nursing plans. In addition, students will be able to evaluate the results of nursing interventions and how to assess them by resolving problems arising from the postoperative patient course.

Module outline (THEORY)

- Introduction to surgical nursing II (anatomy and physiology).
- Pre and post-operative care (patient assessment, aim of nursing care, planning of nursing interventions, recognition, management of postoperative complications and evaluation) in the following systems:
- Cardiovascular system: cardiac surgery (extracorporeal circulation), heart transplantation, varicose veins, thrombophlebitis and vein thrombosis.
- Urinary system: Acute and chronic kidney disease (peritoneal dialysis, hemodialysis), kidney transplantation, prostate hypertrophy, Ca prostate and urolithiasis.
- Musculoskeletal system: Fractures, hip/knee arthroplasty, amputations.
- Sensory organs (vision, hearing and speech): Eye diseases - cataracts, corneal transplantation, strabismus, glaucoma and eye tumors. Diseases of the ear and tympanoplasty, nose, throat, tonsils and adenoids diseases. Laryngeal diseases, Ca larynx and laryngectomy (total or partial).

Written exams

Module aims (LAB)

Upon successful completion of the laboratory module, students will have acquired the necessary knowledge and skills to be able to provide nursing care to patients hospitalized in pathology and surgical departments.

Module outline (LAB)

- Placement of a nasogastric tube
- Treating bedsores
- Wound care
- Bladder catheterisation in males & females (with one and two nurses)
- Collection of aseptic urine, bladder irrigation (open and closed)
- Renal Function Replacement Therapies: dialysis and its variants, peritoneal dialysis
- Electrocardiogram (ECG) (performing & identifying basic abnormalities)
- Paracentesis for therapeutic and/or diagnostic purposes (thoracic, lumbar, abdominal, osteomyelitis): materials, preparation, patient care after paracentesis
- Stoma care (colostomy, ureterostomy, gastrostomy, ileostomy)
- Review course
- Clinical placement

Oral exams-practice

EPIDEMIOLOGY/PUBLIC HEALTH

Module aims

The aim of the module is to familiarize students with the concept of epidemiology and its practical application in healthcare facilities. In addition, they will gain knowledge on how to design an epidemiological survey and the use of tools for measuring and evaluating epidemiological data.

Upon successful completion of the theoretical module, the student will be able to grasp the importance of characteristics, persons, place and time on the incidence of disease and the differences between various types of epidemiological studies (descriptive retrospective, prospective interventions). Students will also develop skills in designing, organizing and conducting epidemiological studies and will be able to make decisions about the most appropriate choice of epidemiological research and understand the contribution of epidemiology to clinical and public health.

Module outline

- Introductory concepts of Epidemiology, Definitions. Historical review. Aims and use of epidemiology. Etiology and classification in Epidemiology.

- Epidemiological index. Epidemic, group disease, spectrum of disease. Epidemic outbreaks.
- Outline of epidemiological research. Testing of etiological hypotheses. Applications related to disease etiology. Interpretation of results of etiological investigations.
- Indicators of morbidity (incidence-prevalence). Applications of incidence data. Mortality indicators. Comparison between indicators.
- Descriptive Epidemiology. Characteristics of person, place, time. Synchronous or prevalence surveys, methods and validity of synchronous surveys. Systematic error in epidemiological research and techniques for its reduction.
- Patient-witness studies (retrospective studies). Characteristics. Advantages and Disadvantages. Stratified analysis. Interpretation of findings. Ecological studies.
- Cohort studies. Characteristics. Advantages and disadvantages. Fractal correlations. Interpretation of findings.
- Intervention studies (Experimental studies). Methods in clinical trials. Ethical considerations.
- Pre-symptomatic screening. Tests, mass screening programs and their evaluation. Epidemiological consideration of preventive interventions. Epidemiological methods and Health Services. The application of epidemiology in the evaluation of health services.
- Epidemiology of Infectious Diseases. Epidemiologically important infectious diseases in the community. Epidemiology of Inpatient Infections.
- Environmental Epidemiology. Health effects associated with environmental factors.
- Epidemiology and Clinical Nursing. Evaluation of Therapeutic Measures.
- Evidence-based nursing based on epidemiology.

Written exams

FIRST AID

Module aims (THEORY)

The aim of the module is to train nursing students to be able to deal with emergency and life-threatening situations.

Upon successful completion of the theoretical module, the student will be able to assess the victim's condition and, depending on the safety of the environment, provide the victim with the necessary first aid.

Module outline (THEORY)

- What is first aid - Chain of life
- Rescuer and scene safety
- Airway obstruction - Ventilation

- Basic adult cardiopulmonary resuscitation (ERC Guidelines) - Use of an automatic defibrillator (ERC Guidelines)
- Basic CPR for infants and children (ERC Guidelines)
- Advanced adult cardiopulmonary resuscitation (ERC Guidelines)
- Arrhythmias after resuscitation
- Triage, Patient transfer
- Rescue Extrication
- Immobilization of the injured (adult - child)
- Circulatory collapse, allergy, anaphylaxis
- Animal insect droppings
- Burns - Electric shock
- Drowning
- Heatstroke - Hypothermia, Frostbites

Written exams

Module outline (LAB)

The training is carried out using models. Students are familiarized with basic and specialized CPR protocols, the use of the automatic defibrillator and the management of the multi-trauma patient.

Written exams - practice

PRINCIPLES OF INFORMATION TECHNOLOGY AND APPLICATIONS IN HEALTH

Module aims (THEORY)

The aim of the module is to enable students to manage medical and nursing informatics applications through up to date computer systems.

Upon successful completion of the theory course the student will be capable of using modern computer systems for nursing applications.

Module outline (THEORY)

- Introductory Computer Science concepts. Characteristics of central computer processors of main and secondary memory of peripheral devices. Windows operating system, Operation (desktop, control panel, folder management, searching, creating, moving, copying, deleting, decompressing files or folders). Printing, Backup, Maintenance and Performance
- Introduction to Bioinformatics. The history of bioinformatics and the computational biology. The interdisciplinary nature of bioinformatics. Current situation in the world and Greece.

- Use of computers in biomedicine. Terminology
- Information Systems in Health
- Bioinformatics Applications. Electronic Health Record, Electronic Medical Patient Record, Patient Record Archive, Hospital Information Systems.
- Medical Imaging Systems, Special Applications, Internet in Health Care
- Telemedicine, Tele-health and Tele-education in Health, Telemedicine Applications, Mobile Health and Applications, Virtual Reality & Health.
- Biological Databases. Primary and Secondary databases, Integrated systems for retrieving information from databases.
- The future of informatics applications in Biomedicine.
- Clinical Decision Support Systems (CDSS) in Medicine, Clinical decision making process, Problem solving through CDSS, Examples of CDSS systems in practice.
- Biomedical Signals. Definitions, Unidimensional biomedical signals, Biomedical Imaging, Higher dimensional signals.

Module outline (LAB)

- Use of Windows operating system. Basic operation, Keyboard shortcuts.
- Introduction to Word. Basic Word functions, Text editing - formatting functions, page layout, preview and printing, WORD functions. Graphics, tables, templates. Exercises with different types of documents (scientific paper, thesis etc).
- Introduction - Basic functions of EXCEL. Formatting worksheets, data entry - data processing, creating formulas, introduction to functions. Functions of EXCEL Graphs, printing and page layout, data lists and data analysis (scatter plot with trend line, descriptive statistics, correlation, regression)
- Introduction - Basic functions of POWERPOINT. Adding slides and content, other techniques to enhance a presentation, managing slides, formatting a presentation, adding effects, timing, recording, sharing, viewing a presentation. Creating a 15-slide presentation (conference presentation, thesis examination). Using as an example, a project retrieved from a web search.
- Computer networks. Internet. Web browsing. E-mail.
- Web browsing. Searching medical literature and scientific articles in Google Scholar and PubMed. Impact factor control.

Written exams

SURGERY II

Module aims

The aim of the module is to provide students with the knowledge to recognise the semiotics of the multi-injured patient, as well as musculoskeletal injuries, surgical

conditions of the urinary tract and central nervous system, in order to provide appropriate nursing care.

Upon successful completion of the theoretical module, the student will be able to identify and assess injuries, fractures, urinary tract surgical conditions, neurosurgical conditions and how the healthcare professional approaches patients for diagnosis and nursing care.

Module outline

- Injuries to the musculoskeletal system - skeletal injuries. Complications of bone fractures - treatment.
- Central Nervous System (CNS) injuries - epidural - subdural cerebral hematoma - cerebral edema. Spinal injuries. Glasgow coma scale
- Surgical urinary tract diseases - general local symptoms - urinary physiology - nephrolithiasis - kidney and prostate diseases
- Treatment of multi-injured patients: Priorities and treatment - chest - abdominal - skeletal injuries. Nursing care

Written exams

NURSING OF RESPIRATORY, THORACIC AND VASCULAR DISEASES

Module aims

The aim of the module is for the student to understand the structure and function of the respiratory system and the fundamental principles of recognition, evaluation and treatment of respiratory diseases. The student will also become familiar with the nursing responsibilities involved in carrying out diagnostic tests, invasive or non-invasive therapeutic approaches in the pre-operative and post-operative period in patients undergoing surgery and the necessity of solving problems arising in clinical practice with the help of modern research and scientific studies.

Upon successful completion of the course, the student will be able to recognize the etiological factors associated with respiratory disorders, apply the appropriate techniques for the evaluation of the respiratory system and recognize the main signs and symptoms of respiratory diseases. They will also be able to apply the basic principles of nursing care for each condition, make an informed decision about the most appropriate rehabilitation therapy, implement comprehensive post-operative treatment programs for patients who have undergone thoracic surgery, and provide information on long-term measures to prevent respiratory problems working both individually and as part of a multidisciplinary team.

Module outline

- Elements of anatomy and physiology of the respiratory system
- Normal respiratory function and disorders of respiratory function
- The clinical examination of the respiratory system. Main clinical symptoms and signs of bronchopulmonary diseases.

- Common problems of respiratory patient care (effective airway clearance, ineffective breathing patterns, risk of infection, changes in nutrition and hydration, fatigue)
- Respiratory failure (types of respiratory failure, adult respiratory distress syndrome, etc.)
- Care of patients with pulmonary vascular disorders/pulmonary circulation diseases (pulmonary hypertension, pulmonary cardiomyopathy, pulmonary embolism, pathophysiological reaction to pulmonary embolism - cardiovascular and respiratory system manifestations, etc.)
- Care of patients with disorders of the upper respiratory system (common cold, rhinitis, sinusitis, pharyngitis, tonsillitis, etc.)
- Care of patients with lower respiratory tract disorders (acute bronchitis, bronchiolitis, bronchopneumonia, pulmonary abscess, infectious lung diseases (lobar pneumonia, viral and bacterial pneumonia, nosocomial disease, pneumonia in immunosuppressed patients, aspiration pneumonia), etc.)
- Care of patients with pleural diseases (pleurisy, pleural effusion, empyema, chylothorax, pneumothorax, etc.)
- Care of patients with lung tumors
- Care of patients with chronic obstructive lung diseases (chronic bronchitis, pulmonary emphysema, bronchiectasis, obstructive bronchiolitis, cystic fibrosis, etc.)
- Care of patients with granulomatous lung diseases (pulmonary tuberculosis, sarcoidosis, etc.)
- Care of patients with occupational lung diseases (pneumoconiosis, inhalation of chemicals, etc.)
- Care of patients with congenital anomalies and diseases of the lungs and thoracic skeleton. Chest injuries.

Written exams (and optional written projects)

HOSPITAL INFECTIONS

Module aims

The module aims at enabling students to acquire the appropriate theoretical knowledge about the pathogenesis of infections, the specific ways of recording and monitoring hospital-acquired infections, as well as their prevention measures.

Upon successful completion of the theory module, students will be able to understand the concept of health and disease in relation to infections associated to pathological and surgical problems in hospital settings, and to apply this knowledge in the planning and delivery of nursing care as well as the evaluation of the results.

Module outline

- Introductory concepts and definitions in nosocomial infections. Their usefulness in nursing.
- Epidemiology of nosocomial infections - Infection control program

- Tools for the control of hospital acquired infections – Recording of them
- Sterilisation-disinfection-antisepsis policy
- Hand hygiene -Description of hand washing technique –Preparations used.
- Urinary tract infections
- Hospital-acquired pneumonia
- Infections from endovascular devices -Frequency-definition of catheter-related infections -Description of pathogenesis
- Infections from endovascular devices used for short and long duration, infections from fully implantable endovascular devices
- Infections in patients with cancer
- Hospital-acquired infections in ICUs.

Written exams

FOREIGN LANGUAGE (TERMINOLOGY)

Module aims

The aim of the module is to enable students to develop their scientific language skills in English in order to meet their communicative and academic needs in a nursing work environment. Terminology is not isolated from its linguistic or extra-linguistic environment and is always presented as embedded in it. The examination of grammatical and syntactic phenomena is not carried out in isolation but always in relation to texts of specialized terminology.

Upon successful completion of the theoretical module, students will be able to understand the foreign-language literature in their field of expertise, identify a specialized scientific and technological text and acquire a general idea of the content, despite the existence of unfamiliar vocabulary and terminology.

They will also have the skills to translate into a foreign language written and/or spoken information obtained through written and/or spoken language (articles, interviews, debates, conferences, seminars, etc.), to deduce the main idea of the subject of a scientific or literary text, while summarizing its content. In addition, they will be able to express written and/or oral opinions on a topic in their area of expertise based on the information provided.

Module outline

The module involves the teaching of advanced nursing and medical terminology along with discussion of health, nursing & medical related topics and authentic dialogues.

Written exams

TRANSCULTURAL NURSING

Module aims

The aim of the module is to help students understand the concept of "Transcultural/Intercultural Nursing" as a science and to develop methods of reaching people through intercultural care. Students will also develop skills in order to gain knowledge specific to local ethnic minorities and formulate perceptions towards the application of Basic Nursing Care to different cultural groups.

Upon successful completion of the theoretical module, students will be able to apply skills that can be used in the process of gathering information for the education of the target population, as well as in the management and treatment of acute and chronic health problems in the transcultural/intercultural environment. They will also be able to plan care using the nursing process method in order to understand the concept and content of transcultural/intercultural nursing and to realize the role of the nurse. In addition, they will be in a position to analyze nursing care provided in the transcultural/intercultural environment in the context of primary, secondary and tertiary prevention and to assess the hygiene and safety of the physical and social transcultural/intercultural environment. In addition, they will be familiar with the concepts of culture, health, illness and their interaction in different cultures and will be knowledgeable to report on cultural factors related to mental illness, interventions in transcultural/intercultural nursing and factors affecting the provision of care to different population groups. Finally, they will be able to identify the parameters of quality of transcultural/intercultural care in age groups.

Module outline

- History - Objectives, responsibilities - Definitions of intercultural nursing
- The concepts of civilization, culture, health and illness
- Theory and models of intercultural nursing and health
- Culture, experience and cultural sensitivity of health professionals
- Factors influencing the delivery of care in different cultures nationally and globally
- The transcultural/intercultural dimension of quality of care
- The health of migrants, the provision of health and welfare services
- Transcultural/Intercultural knowledge, sensitivity and competence in child care
- Transcultural/Intercultural mental health nursing
- Human rights, guaranteeing and protecting the right to health.
- Ethical dilemmas and future trends in school nursing

Written exams

5th SEMESTER

PAEDIATRIC NURSING

Module aims

Students will acquire the necessary knowledge and skills in order to be able to evaluate paediatric patients' needs, to state and prioritize nursing diagnosis, to plan a nursing care plan, to apply nursing interventions and to evaluate outcomes. Students are going to learn and provide nursing care plans for paediatric patients (newborn to adolescent) with various health problems using the nursing process. In addition, students are going to acquire basic knowledge regarding obstetric nursing, such as pre-conception tests, conception, pregnancy, physiology and pathology of pregnancy, partum and complications. Assessment and management of pregnant women, women in labour and during the postpartum period are included in the syllabus.

In the lab students are going to acquire knowledge and skills necessary to care for children and newborns.

Module outline

- Child physical assessment and development
- Child/adolescent during hospitalization
- Basic principles of paediatric nursing history based on its physical examination
- Maternity Nursing – conception, pregnancy, pre-pregnancy tests, delivery, post-partum period
- Assessment of the newborn - Health problems in newborns
- Problems of the Respiratory Tract in children
- Problems of the Urinary System in children
- Blood diseases in children
- Problems of the Neurological System in children
- Children surgery – pre-operative and post-operative care, assessment, complications, interventions
- Children with chronic disease (asthma, diabetes mellitus, malignancies, chronic kidney disease etc)
- Psychosocial problems in children/adolescents (autism, dyslexia, schizophrenia, bulimia, depression)
- Ethical dilemmas in children nursing – decision making.

Written exams.

Lab outline

- Drug administration – general principles

- Drug administration: oral, rectum, inhalers, eye and ear drops
- Drug administration – dosages, intramuscular injection
- Parenteral drug administration – solutions, intravenous cannulation
- Vital signs (arterial blood pressure, pulse, respirations, temperature), fever and its management
- Collecting specimens (urine culture, blood culture, faeces culture, pharyngeal and nasal specimen, trauma drainage specimen, sputum specimen, collection of 24h urine)
- CPR and Heimlich maneuver
- Delivery, assessment and care of the newborn, diagnostic tests, baby wash, caring for the umbilical cord
- Premature babies, incubator, caring for incubated babies, oxygen and light therapy, exchange transfusion
- Breast-feeding (preparation, position), artificial feeding, Levin catheterization

Oral exams/practice.

ONCOLOGY NURSING

Module aims

Students will acquire the necessary knowledge and skills in order to be able to provide holistic nursing care to patients with cancer. Students will be able to understand the pathogenesis of cancer and the ways of cancer metastasis, treatment modalities and side-effects of the therapies. Furthermore, the course will prepare students to effectively manage the needs of cancer patients, to prioritize them and to be able to assess their problems and the outcomes of nursing care provided.

Module outline

- Pathophysiology of cancer
- Cancer epidemiology
- Primary, secondary and tertiary prevention of cancer. Nurses in primary and secondary prevention
- Surgical therapy – nursing care plan of patients with cancer
- Chemotherapy – preparation and administration of chemotherapeutic agents
- Chemotherapy side effects. Nursing care plan of patients on chemotherapy
- Radiotherapy – side effects. Nursing care nursing care plan of patients on radiotherapy
- Targeted therapies – side effects. Nursing care plan of patients on targeted therapies
- Immunotherapy – side effects. Nursing care plan of patients on immunotherapies

- Hormonal therapy – side effects. Nursing care plan of patients on hormonal therapies
- Psychosocial care – stress, depression, family environment, social support

Written exams and essay.

RESEARCH METHODOLOGY IN NURSING

Module aims

Students will acquire basic knowledge on research in order to be capable to read, explain and evaluate data and implement them in nursing practice. In addition, they could identify nursing problems that could be studied, participate in research studies and plan qualitative and quantitative research. Students could identify and state research questions and hypotheses, plan-organize and implement research studies, critical appraise scientific papers and submit an evidence based research protocol.

Module outline

- Introduction to research methodology in health-care settings
- Ethical issues in nursing research
- Research question
- Descriptive and systematic literature review
- Quantitative research
- Qualitative research
- Research Population – Sample
- Research tools (questionnaires, scales) and interview planning in qualitative research
- Data analysis (descriptive and analytic statistics)
- Deductive presentation and discussion of research findings
- Research findings and nursing practice
- Implementation of Nursing Research

Written exams.

PAEDIATRICS

Module aims

Students will acquire the necessary knowledge and skills regarding children's and family's health. They could recognize children's health problems and the way a healthcare professional should approach children in order to make diagnosis and provide appropriate nursing care. They will be taught child development from newborn to adolescent, basic principles of clinical examination

and diagnosis. They will acquire knowledge regarding therapeutic approach in pathological paediatric situations.

Module outline

- Paediatric medical history
- Physical examination
- Feeding, Nutrition
- Problems of the Respiratory Tract in children
- Problems of the Circulatory System in children
- Problems of the Digestive System in children
- Problems of the Genitourinary System in children
- Metabolic diseases
- Blood diseases in children
- Malignancies in children
- Problems of the Skin in children
- Surgery in children

Written exams.

NURSING DIAGNOSTICS AND SEMIOLOGY

Module aims

Students will acquire the necessary knowledge in order to be able to implement nursing history and physical-clinical examination. Students will be able to proceed to clinical examination of all systems.

Module outline

- Nursing history
- Physical examination and various techniques
- Vital signs
- Head and neck examination
- Chest and lung examination
- Cardiovascular system
- Breast and axillary lymph nodes
- Gastrointestinal system and abdominal examination
- Urinary system
- Musculoskeletal system

- Neurological system
- Skin, hair and nails

Written exams.

NURSING REHABILITATION OF PEOPLE WITH CHRONIC HEALTH PROBLEMS

Module aims

Students will acquire the necessary knowledge to provide holistic care to people with chronic health problems keeping in mind the individual pathophysiologic and psychosocial elements of each health problem. Having completed the course the students will be able to implement knowledge and skills in order to provide nursing care and rehabilitation care to people with chronic health problems. In addition they can provide the appropriate nursing care and rehabilitation plan, and document the care provided. Students will be able to address adaption to new situation and care of non-hospitalised people with chronic health problems, to make decisions and choose the appropriate care and rehabilitation plan, to provide individualized and cultural sensitive care. Finally students will be able to work in a multiprofessional environment within the context of rehabilitation.

Module outline

- Introduction – definitions (chronic health problem, rehabilitation, basic principles of rehabilitation, quality of life, nursing process)
- Multiprofessional cooperation, nurses' role
- Community rehabilitation care team, self-care, family-carer
- Psychosocial problems of people with handicaps and nursing care of fear, anger and frustration. Counseling.
- Case-studies and nursing care plans for people with chronic health and mobility problems
- Nursing care and rehabilitation plan for people with Chronic Pulmonary Disease, Asthma, Cystic fibrosis
- Nursing care and rehabilitation plan for people with metabolic disorders
- Nursing care and rehabilitation plan for people with Chronic Kidney Disease
- Nursing care and rehabilitation plan for people chronic musculoskeletal problems
- Nursing care and rehabilitation plan for people with Spinal Injuries
- Nursing care and rehabilitation plan for people with Stroke
- Nursing care and rehabilitation plan for people with Degenerate Neurological problems

Written exams

GASTROENTEROLOGY

Module aims

Students will acquire the necessary knowledge regarding diseases, diagnostic tests and treatment of problems of the gastrointestinal system. Upon course completion students will be able to recognize pathological situations of gastrointestinal system and the way healthcare professionals approach patients in order to provide diagnosis and treatment. In addition, students will familiarize with various diagnostic techniques and up-to-date therapeutics.

Module outline

- Approach of people with Digestive System problems
- Diagnostic tests of the gastrointestinal system
- Nutrition disorders
- Mouth cavity problems
- Problems of the esophagus
- Stomach and duodenum problems
- Small and large intestine problems
- Liver problems, Hepatitis, Liver Cirrhosis
- Problems of gall bladder and duct
- Pancreatic problems
- Upper and lower digestive system hemorrhage
- Infections and malignancies of the gastrointestinal system
- Endoscopies – Management of an endoscopic clinic, diagnostic and therapeutic endoscopies (gastroscopy, colonoscopy, ERCP)

Written exams

RENAL NURSING

Module aims

Students will acquire knowledge and understanding of the complex and varied clinical issues associated with caring for people with renal problems. There is strong emphasis on the integration of the theoretical principles underpinning comprehensive and systematic assessment of the person with kidney disease with practical application in the clinical setting. The content focuses on a holistic approach and nursing care planning in order to provide students with skills to care for people with kidney problems pre-dialysis, dialysis and transplantation.

Module outline

- Introduction, history of Renal Replacement Therapies, future challenges, e-health, eco-nephrology
- Anatomy, Physiology of Kidneys, basic renal interventions, causes of renal disease and clinical manifestations
- Clinical Examinations in Renal Disease Diagnosis
- Psychological aspects of the disease, palliative care, quality of life of people with renal problems
- Acute Kidney Injury: causes, signs and symptoms, prevention of AKI, management, nursing care plan
- Chronic Kidney Disease: causes, signs and symptoms, prevention of AKI, management, nursing care plan
- Hemodialysis
- Peritoneal Dialysis
- Kidney Transplantation
- Nutrition in Renal Disease
- Care for children and Adolescents with renal problems
- Medication in Renal Disease
- Community Renal Nursing, Clinical Standards and Nursing Goals, Evidence based nursing, caring for diversity

Written exams

CRISIS MANAGEMENT IN NURSING

Module aims

Students will acquire basic knowledge and issues of Crisis management in order to be able to provide the appropriate nursing care plan for the safety of the people in the community. Upon completion of the course the students could be capable to implement the appropriate nursing care plan in emergency situations, to understand basic principles of crisis management and to identify crisis situation.

Module outline

- Basic definitions, types of crisis, preparation for management, stages of crisis management
- Organizing an education program for crisis management in the community
- Basic elements in crisis management
- Natural and Environmental disasters
- Transcultural care in global and national disasters
- Media and mass disasters

- Mental Health Management in Mass Disasters
- Child and mass disasters
- Resource management in mass disasters
- Hygiene and safety in working places
- Crisis management in the developing world
- Healthcare professionals Mental health management

Written exams

QUALITY ASSURANCE IN NURSING PRACTICE

Module aims

Students will acquire knowledge on modern principles of organizing and promoting quality of delivered services, high quality of working conditions and the health-care services' role as protectors of environment and public health.

Module outline

- Quality in health-care services, historical evolution and usage
- Introduction in Total Quality Management and use of quality tools
- Total Quality Management in nursing
- Standardisation and healthcare products
- Nursing wards and facilities certification
- Quality in health-care settings
- Quality assurance system in healthcare setting
- Quality hygiene and safety management in workplace
- Environmental management
- Quality awards and assessment of healthcare systems
- Methods, techniques and quality tools in nursing
- Quality measurement from the customer point of view
- Patient satisfaction

Written exams

6th SEMESTER

MENTAL HEALTH NURSING

Module aims

Students will acquire knowledge in order to provide holistic individualized nursing care to people with mental problems according to the principles of mental health nursing. Students will acquire knowledge and skills regarding the therapeutic relationship between people with mental health problems and healthcare professionals. In addition, they will be able to participate in effective approach and support of the patient and his/her family. Finally, students will be able to provide a nursing care plan for people with mental health issues.

In the clinical lab students, in small groups, visit various mental health settings. During their placement they observe and participate in an everyday routine of the wards and/or community mental health settings.

Module outline

- Basic principles of mental health nursing: mental health, mental illness, normal vs pathological, theoretical frame of mental health nursing
- Psychiatric Reform in Greece: historical background, facilities, new approach and rules
- The role of Mental Health Nurse in primary care and clinical settings
- Prevention of mental disorders (primary, secondary, tertiary)
- Nursing communication with the patient and hiw/her family(techniques of therapeutic communication, barriers in communication, clinical interview)
- Stress disorders and crisis nursing care plan
- Nursing care for patients with schizophrenia
- Nursing care for patients with emotional disorders (mania, depression)
- Nursing care for personality disorders
- Nursing care for elderly people with organic mental disorders
- Nursing care for children with mental health problems
- Ethics in mental health nursing

Theory: written exams

Lab: clinical case study.

NURSING ADMINISTRATION – HEALTH CARE MANAGEMENT

Module aims

Students will acquire basic knowledge of nursing management and effective leadership in nursing administration through programming, organizing, leadership

and evaluation. Emphasis will be given in human resources management, while with in class practice students will be able to understand the demands of constant change in healthcare system in Greece. Finally, they will be able to implement those knowledge acquired.

Module outline

- Introduction to Healthcare Management, types of healthcare settings
- Nursing role in the modern healthcare system
- Basic management theories and Nursing Administration
- Systems of Nursing Care Provision
- Management, coordination and skills of the Transformational leadership
- Ethics in nursing administration
- Planning, programming, decision making and problems solving
- Staffing and programming in healthcare
- Human resources management, staff evaluation
- Motives, empowerment and nursing personnel development
- Time management, duties assignment, team working
- Communication in working environment, conflict management
- Financial management in nursing administration
- Change management in healthcare settings

Written exams

EMERGENCY NURSING/INTENSIVE CARE NURSING

Module aims

Students will acquire theoretical knowledge and will develop critical thinking in order to be able to assess and manage people coming to the Accidents and Emergency Department (A & E) and in Intensive Care Unit (ICU). Furthermore, they will be able to provide quality nursing care for people hospitalized in A & E and ICU. Students will be able to plan and implement an individualized nursing care plan and interventions for people hospitalized in A & E and ICU.

Module outline

- Introduction to emergency nursing, philosophy and definitions
- Ethics in emergency and intensive care nursing
- Fluid, electrolytes, acid-base balance
- Diabetes Mellitus and endocrinological problems
- Shock and resuscitation, Monitoring

- Respiratory tract problems – pulmonary embolism
- Cardiovascular problems
- Central Nervous System problems
- Cerebral injuries – multi-trauma patient management
- Gastrointestinal disorders, peptic hemorrhage, pancreatitis
- Burns
- Pain and its management
- Drug poisoning

Written exams.

Lab outline

- Airway management (mouth-pharyngeal, nose-pharynx, laryngeal mask, tracheal tubes)
- Central Venous Pressure, Invasive arterial blood pressure
- Blood gases and acid-base balance, oxymetry
- Tracheotomy management
- Bronchial aspiration (suction)
- Aseptic technique, surgical hand washing, scrub nurse preparation
- Monitoring and mechanical ventilation

Oral exams/practice.

CLINICAL NURSING I (CLINICAL INTERNSHIP I)

Module aims

Students will implement the theoretical knowledge and skills acquired during previous semesters in patient-centered care and health promotion. Students assess patients' needs, implement appropriate nursing interventions and evaluate outcomes. In addition, they can make clinical decisions, work in a multiprofessional environment, and coordinate the team within the healthcare facility and/or in the community, or work autonomously in the community. Finally, they can provide care in hospital, at home, at school and in the working place.

Module outline

Clinical internship in secondary and tertiary healthcare facilities.

Written nursing care plan

GENETICS

Module aims

Students will acquire the appropriate knowledge in order to understand basic principles of genetics, heredity, chromosome structure and genetic syndromes.

Module outline

- Basic principles of genetics
- Patient Chromosome study
- Chromosome functions
- Patient DNA study
- Patient DNA Mutations
- Hereditary abnormalities
- Genes that affect metabolism, reaction to medication
- Genetic diseases: tests, counseling, treatments (genetics, cell and stem cell)

Written exams.

DIABETES MELLITUS

Module aims

Students will acquire theoretical knowledge about epidemiology, diagnosis, pathogenesis, management and complications of Diabetes Mellitus (DM). Students will be able to identify main DM symptoms, to learn the long-term complications, to identify education process for people with DM, to learn the dietary advices regarding DM and to learn about orally administered medications and insulin. Finally, students will be able to provide the appropriate care for people with DM>

Module outline

- Epidemiology of Diabetes Mellitus (DM)
- Classification and Diagnosis of DM
- Pathogenesis of DM
- Nutrition and DM
- Obesity
- Microvascular complications of DM
- Macrovascular complications of DM
- Cardiovascular complications of DM
- Therapeutic approach with oral medication
- Insulin therapy – medication pumps
- Panceatic transplantation

Written exams.

HISTORY OF NURSING SCIENCE

Module aims

Students will acquire knowledge on the history of nursing in Greece and internationally and milestone events of the past and today. Students will acquire knowledge on development of nursing from the ancient times to today, to approach the philosophy and principles of nursing at specific time periods and to describe elements that contributed to nursing development.

Module outline

- Early nursing, ancient people
- Nursing in ancient eastern cultures (Chinese, Persian, Indian, Siamese, Mesopotamia, Judea, Egypt)
- Nursing in ancient Greece (Crete, Homeric Era, Asklepeion, Hippocrates)
- Nursing in Byzantine Era
- Nursing in Arab culture
- Nursing in the West (Medieval, Renaissance, Enlightenment)
- Nursing in the New World
- Nursing during the 19th and 20th century, nursing personalities (F. Nightngale)
- Theories in nursing science, International Council of Nurses
- Nursing during war, Erick Dynan, International Red Cross
- New Greek Nursing Era: from the Fall of Constantinople to Greek Revolution of 1821, revolutionary years
- New Greek Nursing Era: from New Greek State to the Balkan Wars, 1st World War and 2nd World War
- From Greek Gorilla War to nowadays, Greek National Nurses Association, personalities of Greek Nursing, Greek Red Cross

Written exams.

7th SEMESTER

ETHICS AND DEONTOLOGY IN NURSING SCIENCE

Module aims

Students will acquire knowledge regarding ethics, deontology and law. They will acquire basic knowledge on civil, criminal and disciplinary law (liability, criminal liability, disciplinary action) in public and private sector. In addition, they will acquire knowledge on Nursing Code of Ethics, basic principle of bioethics, and the implementation of bioethics in clinical research.

Module outline

- Ethics and bioethics
- Basic principle of bioethics
- Bioethics and nursing
- Nurses Code of Ethics in national and international level
- Nurses professional rights
- Elements of Civil Service Code
- Liability, introduction to liability law, legal transaction, tort, legal responsibility & liability for damages
- Liability, conditions for liability, illegal behavior, medical and nursing negligence, patient consent, fault, discrimination
- Patient Rights and Nurses' Rights
- Ethical dilemmas in nursing
- Decision making in nursing practice
- Nursing confidentiality
- Dilemmas regarding genetics, transplantation, euthanasia

Written exams.

WRITING AN ACADEMIC ESSAY

Module aims

Students will acquire knowledge on literature search in Greek and International Databases in order to be able to conduct and present his/her final thesis, as well as scientific essays/papers. Upon completion students will be able to show analytic and synthetic skills in writing a scientific essay, to be able to present in a small group of other students with the use of technology.

Module outline

- Plan and development of an academic essay
- Greek and International Scientific Journals for Healthcare
- Writing a literature review paper
- Writing a research study paper
- Literature review in electronic databases
- Writing references with Harvard system
- Writing references with Vancouver system
- Guidelines regarding final thesis
- Presentation of a nursing topic in a group of students – Discussion, evaluation

Written essay (individual or group)

TEACHING METHODS IN NURSING

Module aims

Students will acquire knowledge of teaching principles and methods, as well as skills of planning and programming teaching in nursing. Students upon completion of the course students will be able to be an educator and mentor in order to approach and educate patients, nurses and students within the academic environment.

Module outline

- Meaning, definition and nature of teaching and learning. Factors affecting the teaching/learning process
- Teaching, development, learning. Psycho-paedagogical principles (cognitive, human-centered)
- Learning types
- Teaching models & models of teaching in nursing
- Teaching methods: lecture, demonstration, small groups, discussion
- Feedback in nursing education
- Clinical mentor: clinical practice in nursing education
- Teaching process evaluation, evaluation criteria and methods.

Presentation of teaching in classroom

WOMEN'S HEALTH/MATERNITY NURSING

Module aims

Students will acquire knowledge in order to understand the physiology and problems of the woman's reproductive system and problems that could affect women's health. In addition, they will be able to know the factors that lead to a healthy pregnancy, to understand the physiology and pathology of pregnancy and

labor and to provide specific interventions to ensure healthy labor, newborn and post-partum period. Upon completion students will be able to analyse women's health problems and provide appropriate interventions, to report and analyse preventive measures for controlling life-threatening situations. In addition, they could understand basic principles of anatomy-physiology of women's reproductive system, fetus development and physiology of pregnancy and labor. They could promote women's health and analyse the nurses' role, preventive measures in adolescence, pregnancy, labor, post-partum, and menopause. Finally, they could identify pathological situation that could be experienced by women and fetus during pregnancy, labor and post-partum period.

Module outline

- Anatomy-physiology of women reproductive system
- Women's health, preventive measures, gynaecological history
- Contraception methods
- Infections of genitals, prevention
- Gynaecological problems and nursing care
- Dangers in reproductive age, infertility
- Benign and malignant diseases of gynaecological system, nursing care
- Breast cancer – nursing care
- Menopause and nursing care
- Pregnancy physiology, nursing care
- Labor – nursing care
- Labor pathology – nursing interventions
- Post-partum period, problems, nursing care
- Diseases of the women reproductive system, adolescent gynaecology, menopause

Written exams.

CLINICAL NURSING II (CLINICAL INTERNSHIP II)

Module aims

Students will implement the theoretical knowledge and skills acquired during previous semesters in patient-centered care and health promotion. Students assess patients' needs, implement appropriate nursing interventions and evaluate outcomes. In addition, they can make clinical decisions, work in a multiprofessional environment, and coordinate the team within the healthcare facility and/or in the community, or work autonomously in the community. Finally, they can provide care in hospital, at home, at school and in the working place.

Module outline

Clinical internship in secondary and tertiary healthcare facilities.

Written nursing care plan

CARDIOLOGY NURSING

Module aims

Students will acquire knowledge on anatomy and functions of the cardiovascular system, on basic principles of assessment and management of cardiovascular diseases. In addition, they will learn methods of preventing and changing aggravating factors, nursing role during diagnostic tests and therapeutic interventions during pre-and post-surgical period. Finally, they will acquire knowledge on ways to cope with problems in the clinical area using new research and scientific data.

Module outline

- Anatomy and physiology of heart and cardiovascular system
- Estimation of needs of people with heart problems (health history, clinical examination, ECG, imaging tests, haemodynamic monitoring)
- Nursing care for people with arterial blood pressure
- Nursing care for people with coronary heart disease (chronic coronary disease, acute coronary syndromes)
- Nursing care for people with arrhythmias
- Nursing care for people with heart infections (pericarditis, endocarditis, myocarditis)
- Nursing care for people with valve diseases
- Nursing care for people with aorta and peripheral artery diseases (aorta aneurysm, peripheral arteriopathy, arteritis)
- Heart failure: types and pathophysiology, compensatory mechanisms, nursing care plan
- Heart attack: etiology, pathophysiology, clinical manifestations, therapeutic approach and nursing interventions
- Nursing role for people undergoing invasive interventions and surgeries
- Nursing care for people with cognitive heart diseases
- ECG: basic elements, normal ECG, ECG disorders
- Sudden death, heart attack, CPR
- Nursing care plan, basic groups of medications

Written exams.

COUNSELING IN NURSING

Module aims

Students will acquire knowledge on theory, methods and implementation of counseling nursing. Students will develop basic counseling skills. Upon completion of the course students will apply theoretical knowledge in practice, could understand counseling process and therapeutic relationship between counselor and patient taking in mind ethical and deontological problems. Students can incorporate counseling in everyday clinical practice and nursing care, can apply skills and techniques in supporting and educating patients, families, and healthcare professionals. They could discuss strategies for safe management of attitude disorders in hospital and in the community. In addition, they could create a safe environment to promote health despite cultural and religious background, and gender. Students will be able to work individually and as a part of multiprofessional team.

Module outline

- Introduction, definitions, aims of counseling, psychotherapy, counseling and multiprofessional approach, health promotion, primary health care and mental health
- Theories and models of counseling, psychodynamics, cognitive-attitude approach, systemic approach.
- Ethics and deontology in counseling
- Nurse as a counselor
- The process of counseling
- Specialised counselling and communication: multicultural patients, communication with different age groups, management of different age groups, management of “difficult” emotions and patient/family responses, family approach.
- Research and counseling
- Counseling and burnout.

Written exams

PERIOPERATIVE NURSING

Module aims

Students will provide specialized theoretical and clinical knowledge regarding perioperative (pre-, intra- and post-operative) nursing care. Upon completion students can evaluate patients' needs and plan individualized nursing care. In addition, they will be familiarized with organizing an operating theatre and anaesthetics department, and they will understand principles of patient safety and quality of care. Finally, they can develop cooperation skills, coordination and participation in multiprofessional therapeutic team.

Module outline

- Basic elements of peri-operative nursing care (ethics, professional and legal practice)
- Basic principles of aseptic techniques
- Interpersonal relationships and communication in operating theatre, anaesthetics and central sterilization
- Basic monitoring, basic airway management
- Nursing care of patient under anaesthesia, post-anaesthetic care, complications, Post-anaesthetic Care Unit
- Nursing care of patient under surgery (pre-, intra- and post-operative care)
- Basic principles of emergency surgeries – Nurses' role
- Perioperative children care
- Care for special group of patients: severe or multisystem problems, people with high contagious disease and/or immunosuppressant patients.

Written exams

SCHOOL NURSING

Module aims

Students will acquire knowledge regarding school nursing aiming at preservation, promotion and rehabilitation of pupils' health. Students will be able to contribute to psychosocial approach and education of pupils as biopsychosocial being. Upon completion students will be able to apply skills on information collection and education of pupils on acute and chronic health problems in school environment. Students will provide a nursing care plan based on nursing process in order to understand the concept of school nursing. In addition they will analyse nursing care in the context of primary, secondary and tertiary preventions. Finally, students will be able to assess the school's safety of natural and social environment and to contribute to interactions with families and community.

Module outline

- History, aims, definition of school nursing
- Role of school nurse
- Pupils' Health File
- Application of nursing process in the school environment
- Health promotion and prevention of diseases in the school environment
- School nurse and child with acute health problem (first aid, nutritional problems, immunization)

- School nurse and child chronic health problem (allergies, psychoemotional disorders, cognitive disorders, children with special skills)
- School nurse and school environment with high risk attitudes (smoking, violence, bullying, pregnancy, culturally diversity)
- School nurse and family
- School nurse and community
- Ethical dilemmas and future trends in school nursing

Written exams

8th semester

COMMUNITY NURSING II

Module aims

Students will acquire knowledge on community-families-people health needs, on the effect of social, transcultural, ecological problems, on the environmental health risks, on programming and providing prevention, promotion and maintaining services, on crisis management both in healthy and ill people. Upon completion students will be able to assess health needs of the community, health promotion and providing nursing care in Primary Care Settings. In addition, students will be able to promote health in different age groups and different cultural background groups and in every other special population group. Students will be able to manage a crisis in public health and natural environment, changes in economics and human relations.

Module outline

Theory

- Community health promotion
- Organising Primary Health-care Facilities
- Assess and document epidemiological profile of the community with respect to the environment, multicultural elements and life conditions
- Provide health promotion services to the general public and in special groups of people (immigrants, refugees)
- Predict, assess and problems in public health within the community
- Individual, group and multiprofessional services in public health
- Autonomy in nursing interventions in national, european and international level

Written exams

Lab

Students will be trained under supervision in Healthcare Services, in Community and Municipality clinics, in elderly care services and in other primary care settings. They can also train in house visits aiming at promoting health and disease promotion.

Clinical practice in the lab and healthcare settings.

NURSING CARE FOR THE ELDERDLY/GERIATRIC NURSING

Module aims

Students will acquire knowledge on basic elements of nursing care for the elderly and principles of geriatric nursing and theories about aging and changes in body systems. Students will be able to understand nursing interventions in acute and chronic problems of the aged, accident prevention and their complications. In

addition, to understand special pathologic situations of the aged and cultural differences in caring for the elderly. Upon completion students will learn the physiological changes that come with age, to assess the elderly patients' state of health, to organize, manage and endorse guidelines regarding care of the elderly. In addition, students will be able to provide holistic and individualized nursing care to elder people and their families in hospital and in the community. They could endorse new technologies and make decision regarding the best nursing care. Finally, they could plan and manage holistic care for elderly, work within a multiprofessional team and autonomously.

Module outline

- Greek population health. Demographics.
- Population aging: aging theories, philosophy of geriatric nursing
- Characteristics of aging, changes caused by aging, biological, psychological, functional, social changes and losses
- Health estimation, assess nursing needs for the elderly,
- Nutritional needs, factors affecting nutrition, social and cultural views regarding nutrition, malnourishment in the elderly.
- Activity and exercise in the elderly.
- Communication with the elderly, communication barriers
- Health maintenance and community nursing, cultural diversity.
- Sleep disorders, cognitive changes, violence, stress and its management
- Falls and fractures, accidents, home safety, road accidents
- Medications and the elderly, nursing care, education regarding medication, prevention of medication accidents
- End-of-life care, death management and planning the end-of-life.
- Research in Geriatric Nursing

Written exams.

CLINICAL NURSING III (CLINICAL INTERNSHIP III)

Module aims

Students will implement the theoretical knowledge and skills acquired during previous semesters in patient-centered care and health promotion. Students assess patients' needs, implement appropriate nursing interventions and evaluate outcomes. In addition, they can make clinical decisions, work in a multiprofessional environment, and coordinate the team within the healthcare facility and/or in the community, or work autonomously in the community. Finally, they can provide care in hospital, at home, at school and in the working place.

Module outline

Clinical internship in secondary and tertiary healthcare facilities.

Written nursing care plan

HEALTH ECONOMICS

Module aims

Students will acquire knowledge in order to provide students with knowledge and skills in order to be able to understand the way the healthcare services work, the way the expenses are formed, the way healthcare is financed as well as the establishment and formation of healthcare systems within the European Union and the United States of America.

Module outline

- Introduction in Health Economics, health as a gift. Definitions and indexes, levels of healthcare, the state's role
- Health-care Systems, special characteristics, types (liberal, Beveridge, Bismark)
- International experiences: Great Britain, France, Germany, USA
- Health costs, health costs in developed and developing world
- Factors affecting health costs, induced demand for healthcare services
- Health market, offer and demand of healthcare services, market mechanisms (decentralized and centralised system)
- Health insurance, insured dangers, benefits, costs, financing, social security system
- Health and insurance in Greece, financing of health-care systems (primary, secondary health-care), public health insurance, private health insurance
- Organizing and management of healthcare services, basic meanings, special needs of health-care services, basic managerial activities
- Programming healthcare services, working positions, cooperation
- Efficiency and quality of health-care services, meanings and factors affecting, practices to improve efficiency

Written exams.

MOLECULAR ANALYSIS TECHNIQS

Module aims

Students will acquire knowledge on the Science of Genetic engineering and Biotechnology, their application on various sectors. Students will learn new genetic methodology used today in the genetic analysis, such as DNA extraction, agarose gel electrophoresis, PCR and sequencing analysis. In addition, they will learn how to use the results of their experiments, as well as bioinformatics tools.

Module outline

- Genetic Engineering-Biotechnology
- Structure and function of nucleic acids
- Central dogma of Molecular Biology
- DNA denaturation- renaturation
- Fine structure of the gene, biological definition of the gene
- Gene regulation in prokaryotes and eukaryotes
- Restriction endonucleases, formation and cloning of recombinant DNA, cloning vectors
- Genetic modification techniques. Genetic modification in plants, genetic modification in fish, genetically modified products and the European Union, Bioethics.
- DNA libraries
- Genetic identification lab equipment
- DNA extraction
- Agarose gel electrophoresis.
- Polymerase Chain Reaction (PCR)
- Restriction Fragment Length Polymorphism (RFLPs) analysis
- Sequencing analysis
- Random Amplified Polymorphic DNA (RAPDs) analysis
- Real Time PCR
- Variable Number of Tandem repeats (VNTRs) analysis
- Allozyme analysis

Written exams

PALLIATIVE CARE IN NURSING

Module aims

Students will be introduced to the philosophy of palliative care and will acquire knowledge and skills in order to be able to provide holistic nursing care to patients (adults and children) who are at the end-of-life and/or suffer from some type of cancer and/or other life-threatening disease. They will learn to collaborate with all members of the interdisciplinary team, patients, carers and volunteers in order to meet physical, psychosocial and spiritual patients' needs in all palliative care services, both in hospices and in home care services. Upon completion students will be able to understand the concept of palliative care and to provide palliative care for

patients with chronic disease, will implement ethical principles in caring and to provide individualized care.

Module outline

- Basic principles and philosophy of palliative care, historic evolution, palliative care facilities in Greece and abroad, end-of-life hostels and home services
- Nurses' knowledge, attitudes and skills in the provision of palliative care
- Psychosocial and mental needs assessment tools
- Pain and suffering in clinical practice
- Guidelines, protocols and nursing care plans for people with nausea, vomiting, fatigue, dyspnea, stress, depression)
- Therapeutic nursing communication with end-of-life patients
- Acute incidents management
- Taking difficult decisions. Ethical dilemmas
- Paediatric palliative care
- Priorities and nursing care interventions for the end-of-life
- Grief and bereavement in palliative care-support for caregivers

Written or oral exams

NUTRITION/DIETICS

Module aims

Students will acquire knowledge and skills in order to understand basic dietary needs, the relationship between nutrition and development stages, and during pregnancy and various diseases.

Module outline

- General principles of nutrition, vitamins, elements
- Basic needs of the human body, food metabolism, body mass index
- Malnutrition, obesity, Nutrition disorders
- Nutrition in pregnancy, breast feeding, newborn feeding
- Nutrition in childhood and adolescent
- Nutrition of the elderly
- Total parenteral and enteral nutrition
- Nutrition and diabetes mellitus
- Nutrition and cancer

- Nutrition and cardiovascular diseases
- Nutrition and renal problems
- Nutrition and pathology of gastrointestinal system

Written exams.

NEUROLOGICAL/NEUROSURGICAL NURSING

Module aims

Students will acquire knowledge in order to recognize the symptoms of neurological and neurosurgical diseases, the changes in physical and psychoemotional level, to assess patient's and families' social needs so that they can successfully implement holistic nursing care both within a hospital and after discharge in the community. Upon completion students will be able to recognize changes in neurological and neurosurgical diseases and to plan appropriate nursing care.

Module outline

- Nervous system: central and peripheral
- Aims of neurological/neurosurgical nursing
- Sensory organs
- Stroke
- Epilepsy, Headaches
- Encephalitis, meningitis, herpes, multineuropathies
- Chronic nervous system disorders: Alzheimer's disease, dementia, Parkinson's disease, Gravis myopathy, Multiple sclerosis
- Acute nervous system disorders: cerebral pressure, cerebral oedema, brain injury, brain tumors, hydrocephalus
- Traumatic Brain Injuries
- Spine injuries, spine tumors
- Patient rehabilitation, Family support
- Preparation for discharge and continuity of care

Written exams