

UNIVERSITY OF THESSALY
SCHOOL OF HEALTH SCIENCES
DEPARTMENT OF NURSING



STUDY GUIDE



2023-2024 ACADEMIC YEAR



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LARISSA 2023

MESSAGE FROM THE HEAD OF THE DEPARTMENT

Dear students,

On behalf of the teaching and administrative staff, I would like to welcome you to the Department of Nursing of the University of Thessaly.

The Department of Nursing provides high quality studies that focus on health care of individuals, family and community, prevention, maintenance and rehabilitation of all normal biopsychosocial, cognitive and intellectual functions of individuals as well as disease treatment interventions. The new undergraduate curriculum of the Department of Nursing is designed to provide the necessary theoretical knowledge and clinical skills to enable graduates of the Department to provide high quality nursing health care immediately after graduation, to meet the demands of modern health care systems and to be competitive in the labour market.

We wish you a happy and productive academic year!

The President of the Department

Associate Professor Ioanna Papathanasiou

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STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

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BRIEF HISTORICAL BACKGROUND

The Department of Nursing of the Faculty of Health Sciences of the University of Thessaly, based in Larissa, was established under Law 4589 (Government Gazette 13/29-01-2019/tr.I of Thessaly and Central Greece and the Department of Medical Laboratories of the T.E.I. of Thessaly, while at the same time the possibility was given to integrate the staff of the T.E.I. of Thessaly and Central Greece into the University of Thessaly. The students of the T.E.I. of Thessaly and Central Greece were also given the opportunity to join the University of Thessaly on the basis of articles 6 and 12 of the same Law.

The Department of Nursing of the University of Thessaly is housed in the area where the Department of Nursing of TEI of Thessaly, in Larissa, was previously housed. The Department of Nursing of TEI of Thessaly was founded in 1983 with the Law 1404/1983 (Government Gazette A 173/24-11-1983), after the abolition of the corresponding School K.A.T.E.E. Larissa and from the Academic Year 2001 provided Higher Education according to the Law 2916/2001 (Government Gazette A 114/11-06-2001).

The Department of Nursing of the University of Thessaly accepts students from the academic year 2019-2020.

INTRODUCTION TO THE CURRICULUM

MISSION OF THE NURSING DEPARTMENT

Nursing is the science that deals with the health care of individuals, families and communities, the prevention, maintenance and restoration of all normal biopsychosocial health functions and the treatment of disease. Nurses enhance the promotion of an individual's health and well-being, provide equitable, safe, up-to-date, and scientifically based care, and enhance human dignity with respect for nursing confidentiality and confidential information. The roles of the Nurse include enhancing and maintaining self-care for patients and healthy individuals, safeguarding the rights of individuals at all levels of care, and creating and maintaining a therapeutic environment for the patient. Individual nursing purposes include advocacy in the care of individuals, families, and communities, protecting and promoting the autonomy of the nursing profession, supporting, and disseminating nursing science, research, participating in health policy development, organizing, and administering health systems, and education.

The mission of the Department of Nursing of the University of Thessaly is to provide the necessary theoretical and practical training to its students to practice the science of Nursing. The objectives of the curriculum include the provision of knowledge on the integrated and evidence-based provision of nursing care, the coordination of interdisciplinary teams, the education of patients and their caregivers on health issues, the research and theoretical teaching of nursing science, the administration and organization of nursing units and the evaluation of health services. Graduates of the Department can occupy positions in the National Health System, in the wider public and private sector where a degree in nursing is a prerequisite, and can be employed in the field of education and research, among others.

Although the professional rights of nursing graduates are not established by the current legislation, graduates of the Nursing Department of the University of Thessaly are described as "General Care Nurses" (Registered Nurse) in accordance with the international directives 2005/36/EC and 2013/55/EC.

EXPECTED LEARNING OUTCOMES

The Undergraduate Studies Program (USP) of the Department of Nursing, School of Health Sciences, aims to provide students with the appropriate scientific knowledge,

skills and abilities that will serve as a basis for their personal scientific development and future professional career. A specific objective of the Department MPA is to achieve the learning outcomes that are included in the title awarded in accordance with the requirements of nursing science.

The student initiation in nursing is done in such a way that they are able to complete the studies:

- Have a competent knowledge of basic sciences and be familiar with the current basic clinical skills of modern nursing science.
- Be able to diagnose, treat and prevent the most common diseases and conditions of the population through critical thinking and synthesis of knowledge.
- To be able to communicate effectively with patients, relatives, colleagues and other healthcare staff, with a view to managing cases more effectively and promoting public health.
- Possess a high sense of responsibility, professionalism and ethics and be committed to the patients they are required to serve.

In terms of knowledge, skills and abilities, the graduate of the Department of Nursing of the University of Thessaly, acquires:

Knowledge, to:

1. Possess critical thinking and understanding of basic theories and principles and be able to apply scientific and theoretical concepts and principles of nursing science.
2. Provides comprehensive and personalized health care to patients and healthy people, based on their general and specialized scientific knowledge.
3. Intervenes, supports and empowers patients' families or caregivers in hospital or at home, smoothing out potential difficulties that adversely affect treatment and self-care capacity.
4. Assesses the biological, intellectual, emotional, social, and cultural needs and health problems of patients and their families.

Skills, to:

1. Critically apply the knowledge they have acquired.
2. Gather and interpret evidence from clinical examination to formulate informed judgements based on scientific reasoning.
3. Question in an informed way the established knowledge

Skills, to:

1. Manage complex technical or professional activities
2. Take responsibility and decisions in unpredictable work environments
3. Develop their scientific activity in a teamwork spirit
4. Demonstrate the necessary willingness and attitude to further pursue studies with a high degree of autonomy, a spirit of apprenticeship and lifelong learning

In more detail:

A. Knowledge and skills of the graduates of the Nursing Department of the Faculty of Nursing of the School of Health Sciences of the University of Thessaly:

1. Provision of comprehensive and personalized health care to patients and healthy people, based on their general and specialized scientific knowledge
2. Intervention, support and empowerment of patients' families or caregivers in hospital or at home, smoothing out potential difficulties that adversely affect treatment and self-care capacity.
3. Assessment of the biological, mental, emotional, social, and cultural needs and health problems of patients/individuals and their families
4. Identification of existing and potential health problems, determination and prioritization of nursing assessments/diagnoses and identification and/or management of problems that can be addressed either independently or collaboratively with other health professionals
5. Critical analysis of the findings of the patient/individual assessment and design of nursing plans based on nursing evidence
6. Development and/or modification of the nursing health care plan, accordingly, based on the assessment findings, the patient/individual/family's wishes, values and priorities.
7. Implementation and implementation of the health care plan, based on scientific principles and data for each patient/individual
8. Protecting the dignity and autonomy of the patient/individual in the provision of health care and respecting the confidentiality of information concerning the patient/individual
9. Provision of health care, preventive interventions, health education and health promotion in the context of primary, secondary and tertiary prevention
10. Participation in the psychological support and psychiatric care team
11. Participation in the interconnected psychological and psychiatric support team

12. Application of basic and specialized techniques of therapeutic care and support of organic functions and procedures of continuous invasive and non-invasive monitoring
13. Application of vascular venous access
14. Administration of fluids, drugs and immunization preparations by all routes, application of artificial nutrition (total parenteral and enteral)
15. Support of the patient's respiratory function by all methods, oxygen administration, bronchial drainage of secretions and physical rehabilitation.
16. Performance and interpretation of oximetry and capnometry results.
17. Measurement, monitoring and recording of key hemodynamic parameters in patients with an invasive monitoring system (ECG, central venous pressure, blood pressure, blood gases, cardiac output, hemoglobin oxygen saturation).
18. Implementation of approved clinical protocols and nursing procedures based on current guidelines.
19. Screening patients together with the rest of the treatment team in the Emergency Rooms (ER), after relevant in-service training and referral to the competent health professionals
20. Preparation and education of patients/individuals for examinations and treatments
21. Diagnostic and therapeutic intervention as dictated by relevant protocols in urgent and life-threatening situations
22. Complete documentation (recording) of assessment findings, health care outcomes and patient/individual responses to ensure continuity of health care
23. Providing supportive or palliative health care to ensure quality of life for patients with life-threatening diseases and their families, from the time of diagnosis to rehabilitation or end of life and the period of bereavement.
24. Design, development, and implementation of education programs for patients/individuals and families based on their current and potential needs for self-care and promotion of independence, and evaluation of education outcomes
25. Provision of information and linkage to appropriate health and psychosocial support services or organizations in the community
26. Practicing counseling in groups of sick and healthy people
27. Implementation, supervision and monitoring of infection prevention measures and isolation measures for infectious patients

28. Providing first aid and applying combined life support measures (Basic and Specialized CPR).
29. Strengthening volunteerism in health issues (organizing voluntary blood donation programs, etc.)
30. Informing the competent bodies about problems/risk factors for public health which he/she identifies in the performance of his/her duties
31. Ensuring that a safe working environment and a safe health care environment are maintained
32. Training, direction and supervision of Nursing Assistants and other support staff
33. Coordination, direction, supervision and education of nursing students and other health care professionals
34. Orientation and mentoring of new staff assigned to the Nursing Service, as well as ensuring ongoing training of the same staff
35. Identifying clinical problems and health promotion needs, developing research proposals and conducting research in the context of primary, secondary, and tertiary health care
36. Conducting scientific research studies, writing scientific publications and active participation in professional and scientific societies and associations as well as in continuing education processes
37. Defining and recommending quality and safety criteria for health care and modifying nursing practices based on research data and the guidelines of scientific and institutional bodies
38. Participation in the interdisciplinary health care team for the planning and organization of health care programs and for the organization, planning, and evaluation of the quality of health care services provided
39. Participation in scientific and research committees, as well as in ethics, bioethics and ethics committees
40. Participation in the definition of health policy in the workplace and at all levels of decision-making in the health system
41. Participation in clinical protocol and guideline development teams
42. Strengthening telecare, telehealth, and integrated health care
43. Monitoring and supporting people with chronic health problems and people with disabilities or developmental difficulties

44. Promotion and maintenance of professional and technical knowledge by organizing and attending training programs

45. Practicing any other professional activity that appears in the field of his/her specialization with the development of technology, in accordance with the regulations of the legislation in force at the time

B.1. The Graduate Nurses of the Department of Nursing of the Faculty of Health Sciences of the University of Thessaly have the knowledge and skills to **independently practice** the following interventions:

1. **Conducting Nursing Assessment** which includes: a. Data collection through nursing history taking, interview and observation, b. Nursing assessment, and c. Co-evaluation of available diagnostic findings.

2. **Nursing diagnosis**, according to the current international classification and current nursing standards.

3. **Nursing Process Implementation**, which includes the planning, implementation and evaluation of nursing interventions.

4. **Assessing and addressing** the health needs of individuals and referring them to specialists via telehealth systems

5. **Meeting Self-care Needs and Educating and/or Empowering** patients/individuals for self-care.

6. **Feeding** via nasogastric tube, gastrostomy tube and stoma

7. **Educate Family Members** to continue the patient health care at home, support them in adjusting to treatment protocols and prevent, treat, and care for complications of disease

8. **Informing** the Family about rights, obligations and available services concerning the patient

9. **Infection prevention and control** in health care settings

10. **Measurement, Recording, Evaluation** of Vital Signs

11. **Collection and evaluation** of Capillary Blood and Urine for various tests

12. **Measurement and evaluation** of arterial blood oxygen saturation

13. **Patient education** in the use of inhaled medications – Demonstration and/or evaluation of the use of a spray, nebulizer, inhaler or IPPB device

14. **Training patients** in the self-management of diabetes mellitus and other chronic diseases or disorders

15. **Conducting** an electrocardiogram
16. **CPR and defibrillation** with an automatic external defibrillator
17. **Puncture and monitoring** of Fistula function by nurses working in Dialysis Units
18. **Stoma care** and patient and family education (gastrostomy, ileostomy, ileostomy, nystidostomy, colostomy, ureterostomy, tracheostomy)
19. **Prevention** of complications of Chronic Clinostatism with physical and mechanical means and with the application of exercises
20. **Prevention, Treatment and Care** of Bed Rests
21. **Application** of Stress Management Techniques, de-escalation of tension and management of emotional and psychomotor stimulation
22. **Counselling Support** for a person with a mental disorder and their family
23. **Provision** of Palliative-Palliative Care (assessment and treatment of symptoms and needs assessment)
24. **Planning and taking** safety measures to prevent accidents in workplaces and health care facilities
25. **Health promotion** of healthy and sick individuals and groups in open and/or closed care facilities, schools, workplaces, and all places where people live
26. **Implementing** health education - health promotion programs to modify potentially hazardous health behaviors
27. **Home Health Care** Nursing
28. **Provision of nursing** health care to children and school children at all levels
29. **Participation** in health policy planning at local, national, and European level
30. **Empowering** self-care and co-planning health care with the person in need of health care and lifestyle change
31. **Rhino tracheal Suction** with catheter
32. Tracheostomy **care** - endotracheal tube - bronchoscopy
33. **Providing** first aid

B.2. The Graduate Nurses of the Department of Nursing of the Faculty of Health Sciences of the University of Thessaly have the knowledge and skills to **practice** the following **collaborative interventions**, following a medical instruction or following a decision of the therapeutic team:

1. **Isolation, Management and Declaration of Outbreaks of Infectious- Transmissible Diseases** and any agent hazardous to public health
2. **Coordination of transplantation** by nurses of Organ Transplantation Units after their training at the National Transplantation Organization
3. **Participation** in triage in the emergency room (ER)
4. **Measurement, Recording, Evaluation** of Vital Signs, and treatment of their out-of-normal variations
5. **Assisting** in the Application of Electrical Resuscitation for emergency situations
6. **Administration** of medicinal substances by all routes
7. **Administration** of immunization preparations by all routes
8. **Implementation of vaccinations**, in accordance with the national vaccination program
9. **Application of Artificial Enteral and Total Parenteral Nutrition**
10. **Blood and blood products transfusion** with simultaneous prevention and treatment of complications
11. **Application of Pain Treatments**, according to the current treatment protocols
12. **Oxygen administration** by all available methods in the community and in the hospital
13. **Obtaining biological materials** for diagnostic purposes
14. **Blood draw**
15. **Arterial blood gas intake**
16. **Performing Skin Reaction Tests**
17. **Measurement** of Central Venous Pressure (CVP)
18. **Intra-tracheal suction** (nasal or oral-tracheal) with a catheter
19. **Application** of Bronchial Drainage
20. **Care of Wounds**, surgical incisions and burns in the community and hospital
21. **Application and removal** of bandages and skin ulcers
22. **Treatment and Care** of Cataracts with resolution of skin continuity (3rd, 4th, and undifferentiated stage) in the community and in hospital
23. **Peritoneal dialysis** in the hospital and in the community by nurses trained in Dialysis Units

24. **Carrying out blood dialysis** in the hospital by nurses working in dialysis units
25. **Bladder catheterization** and bladder irrigation
26. **Management** of shock situations and application of protocols for emergency management (venipuncture of peripheral vessels, taking and recording vital signs, securing an airway through an oropharyngeal tube)
27. **Fracture immobilization**

B.3. Knowledge and Skills of the Graduate Nurses of the Department of Nursing of the Faculty of Health Sciences of the University of Thessaly to intervene in emergency and life-threatening situations:

The Graduate Nurses of the Department of Nursing of the Faculty of Health Sciences of the University of Thessaly in emergency and life-threatening situations can practice independently or in collaboration with Doctors all the appropriate and scientifically documented actions aimed at providing first aid.

INFRASTRUCTURE

The Department of Nursing is housed in the building of the School of Health Sciences in the area of the building complex of the University of Thessaly in Larissa. The building facilities are accessible to people with disabilities. The available spaces include administrative offices, faculty offices, classrooms, lecture halls, auditoriums and student training laboratories.

REGISTRATION OF FIRST-YEAR STUDENTS AND COURSE DECLARATIONS

The names of the students admitted to the Department of Nursing are notified by the **Ministry of National Education and Religious Affairs** (M.N.E.R.A.) and the invitation for their registration is made in accordance with the provisions of the articles of the P.D. in force at any given time and within a deadline determined by the **delegated** Minister. The necessary documents for the registration of the student are communicated by the Secretariat of the Department of Nursing (<http://nurs.uth.gr/>). Students declare the courses they wish to attend each semester in the Electronic Secretariat.

Students are entitled to a number of free textbooks equal to the number of compulsory and optional compulsory courses required for obtaining the degree, from the Department textbook catalogue in EUDOXUS.

E-LEARNING PLATFORM (ECLASS.UTH.GR)

The e-learning platform (<https://eclass.uth.gr/>) offers materials that the course instructor considers important and complementary to the student's textbook. This material may include, among other things, presentations, notes and scientific articles. The service can be accessed using a simple web browser without the need for specialised technical knowledge.

ERASMUS+ PROGRAMME

Under the Erasmus+ program, nursing students can carry out part of their studies at universities in foreign countries with full recognition of their studies.

DOCTORAL STUDIES

The Department of Nursing can award a PhD degree in subjects covering the entire spectrum of health sciences. Graduates of the doctoral programs of the Department of Nursing can staff the research, business and educational work force in Greece and abroad as well as conduct postdoctoral research.

CURRICULUM DESCRIPTION

The curriculum of the Department of Nursing is governed by the provisions of Law 1268/1982 and was formulated in accordance with the decision G.5/89656/B3/13.8.2007 of the Minister of National Education and Religious Affairs (B' 1466). The credits have been calculated as follows: 1 ECTS credit corresponds to 25-30 hours of workload. The detailed curriculum can be found at the following link (<http://www.nurs.uth.gr>).

The program is divided into 8 semesters (4 winter and 4 spring) and includes 39 compulsory and 22 optional compulsory courses. The minimum duration of study is 4 years where the student is required to attend 39 compulsory courses and at least 6 optional compulsory courses to obtain a degree. In total, the above courses correspond to 240 ECTS credits (6,227 hours of teaching and personal effort-workload). Practical exercises (laboratories, tutorials, clinical practice) constitute approximately 50% of the duration of the study program and correspond to 108 ECTS. The teaching of each course is divided into 13 weeks per semester, distributed according to the academic calendar. Similarly, at least 3 weeks of examinations are scheduled in each semester according to the academic calendar. The person responsible for the distribution of the content of each course is the Professor appointed by the Nursing Department Assembly. If the number of teaching hours is

less than 80% of the total number of hours, the course is considered not taught and is repeated.

Compulsory courses are defined as those courses in which attendance and successful completion is considered necessary for the Nursing student and therefore their successful completion is a prerequisite for the award of a degree. Part of the curriculum includes laboratory, tutorial and clinical practice that complement the educational process of some of the compulsory courses. This practice does not constitute independent teaching, but rather individual educational activities aimed at the practice and application of what has been taught in each course. Absence of more than 10% of the laboratory, tutorial and/or clinical practice means that the student cannot participate in the course examinations and is obliged to repeat the entire course (theory and practice). The laboratories and clinical practice that are part of the compulsory courses can be carried out in the structures of the Department of Nursing and other departments of the University of Thessaly, in the University General Hospital of Larissa, in the Koutlibanio and Triantafyllio General Hospital of Larissa as well as in any other public or private health care facility, primary, secondary, or tertiary, at the discretion of the Professor. The program and the content of the laboratory, tutorial and clinical practice are drawn up in accordance with the course outline as defined in the study guide under the responsibility of the Professor. The allocation of students to practice is made by the professor in charge at the beginning of the academic semester.

Optional compulsory courses are defined as those which the student can freely choose, depending on his/her personal interests, to deepen his/her knowledge in specific areas. The student may choose courses from the semester he/she attends or from a previous semester, with a maximum of 2 elective courses per semester. From the academic year 2021-2022, the student may choose optional compulsory courses from a subsequent semester than the one he/she attends (e.g. if he/she attends the 4th semester, he/she may choose courses from the 2nd, 4th or 6th semester). The student can choose between fall semester courses when in a fall semester and spring semester courses when in a spring semester. The minimum required number of optional compulsory courses for obtaining the degree is 6 courses (corresponding to 12 ECTS) and in case the student attends and successfully completes more than 6 optional compulsory courses during his/her studies, he/she may choose the ones he/she wishes for the calculation of his/her degree. The selection of the courses is made by electronic declaration/registration to the Department's Secretariat at the beginning of the academic semester. For an optional compulsory course to be taught, at least six (6) students must have selected it. In specific courses and by decision of the Department Assembly, a priority order for course registration may be observed. Any student who has enrolled in one or more optional compulsory courses shall be examined in those courses during the academic year in which they were being taught. In case of failure, i.e. when a student does not successfully complete an optional compulsory course,

he/she must take the same course in the following academic year, after re-enrolling in it, or attend another optional compulsory course in its place.

The courses are organized into general infrastructure courses, specialized background courses and specialty courses.

The **general infrastructure courses** are the basic Nursing courses.

Specialized background courses are the courses that frame general knowledge.

The **specialty courses** focus on the individual specialties of Nursing.

Courses are organized as indicated in the detailed course outline of the curriculum (in the "Course type" field).

In order for a student to be able to register and attend courses of the 3rd year, at the beginning of the 5th semester he/she must have successfully completed 50% of the compulsory courses of the previous years (i.e. 10 compulsory courses from the 1st, 2nd, 3rd and 4th semesters). In specific cases (e.g. prolonged illness) and after the presentation of the necessary supporting documents (as defined by the General Assembly), the General Assembly may allow the student to register in courses of the 3rd year.

For the preparation of the timetable there may be (if it cannot be done otherwise for reasons of building infrastructure and available classrooms) an overlap of teaching hours of some of the optional courses of the same semester.

SEMINARS

In the context of teaching certain courses and at the discretion of the professor in charge, teaching may include full or partial seminar lectures. Seminars may include (scientific) assignments by students with the possibility of their participation in their grading.

NURSING SKILLS BOOK

Students' studies are accompanied by the Nursing Skills book which the student must produce during the laboratory practice and clinical practice, and which is available at the beginning of the studies from the Secretariat. The book contains a list of nursing skills that the student is required to perform successfully during his/her studies. Signature and confirmation of successful performance of the activity by the student is carried out by the professor in charge of the laboratory/clinical practice at the same

time as the skill is performed (not at a later time). It is recommended that the student has successfully completed/performed at least 80% of the skills per module before obtaining the degree. Completion of the skills is carried out throughout the student's studies and is verified by the relevant committee upon completion of *Clinical Nursing II course*.

COURSE EXAMS

Students' performance in each course is assessed by written and/or oral examinations. Students may only sit examinations in registered courses. The method of examination is determined by the professor in charge and is indicated in the course outline in the curriculum. The student's performance in assignments, practice may be considered in the final grading of the course at the discretion of the professor in charge. All examinees are examined in the same way, except for students with disabilities and/or special educational needs, after notification by **Access**. Oral examinations shall be administered by at least two (2) examiners and in the presence of at least two (2) students.

Each academic year includes 3 examination periods (January-February, June- July and September) as determined by the academic calendar. Upon completion of their studies (9th semester), students may be examined in the courses they have not successfully completed in all three (3) examination periods. Students must declare in the Electronic Secretariat the courses they wish to be examined at the beginning of the academic term. The schedule of examinations is announced at the end of the semester by the Department's Secretariat. The student's performance is expressed on an integral (without the use of a fractional part) ten-point scale from zero (0) to ten (10), in which five (5) represents the pass mark and ten (10) represents excellent performance.

In case of failure in compulsory courses that have laboratory, tutorial or clinical practice, the student is not obliged to repeat the practice. Students who have failed courses from previous years are tested on the syllabus of the newest semester (whether it has been reduced or increased) and are not entitled to a new free textbook. Students have the right to view their writing on a day and time designated by the instructor in charge by arrangement with the instructor. If a student fails at least four (4) times in an examination of a particular course and if he/she has taken an examination (not simply come to the examination room), he/she may request to be examined by a special committee of three appointed by the Assembly in which the examiner up to that time will NOT participate. The Assembly may reject the request for examination by the special panel of three under certain conditions.

DEGREE CALCULATION

The calculation of the degree is the same for all higher education institutions. The grades of all courses required for a degree are included in the degree. The degree is calculated based on ECTS credits, as follows:

Degree grade = $\frac{\sum(\text{Course Grade}) * (\text{Course ECTS})}{\sum(\text{ECTS of all courses})}$

If a student has been graded in more courses than the minimum number of credits (ECTS) required for a degree, then he/she may not count several optional compulsory courses, provided that the total number of credits resulting from the remaining courses is at least equal to that required for obtaining the degree. The additional courses are listed in a separate ranking in the analytical mark scheme, in the so-called **diploma supplement**. Established courses taught at another university or former TEI are not considered in the calculation of the degree, with the exception of those taught in the framework of the Erasmus+ programme.

PROGRAMME FOR THE EQUIVALENCE OF A UNIVERSITY DEGREE WITH A UNIVERSITY DEGREE (UNIVERSITY EQUIVALENCE PROGRAMME)

According to the Government Gazette on the abolition of TEI of Thessaly and TEI of Sterea Ellada (Government Gazette 13/29-1-2019), students who have registered before the end of the academic year 2018-2019 continue their education by completing the curriculum of the Nursing Department and the Department of Medical Laboratories of the former TEI of Thessaly and the Nursing Department of the former TEI of Sterea Ellada. The undergraduate students who successfully pass the required for obtaining the degree compulsory and optional courses of the first cycle of studies of the Department of Nursing of their admission T.E.I. as well as of the Department of Medical Laboratories of TEI of Thessaly, have the opportunity instead of taking an oath and obtaining the degree of T.E.I., to attend additional courses from the curriculum of the University Department of Nursing, which they can apply to join in order to obtain a university degree. Students who at the beginning of the academic year 2019-2020 have exceeded the duration of the semesters required to obtain the degree, according to the indicative curriculum, plus four (4) semesters, are only entitled to complete the first cycle of studies of a T.E.I. Department. The University Simulation study program includes 2 semesters of studies corresponding to 60 ECTS.

SUMMARY CURRICULUM AND UNIVERSITY SIMULATION PROGRAMME

UNDERGRADUATE CURRICULUM

1ST SEMESTER

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/ TUTORIAL	CLINICAL PRACTICE	ECTS	
ΠΠΝ111	CC	CLINICAL ANATOMY	4	2		7	KOTSIOU URANIA
ΠΠΝ112	CC	PHYSIOLOGY & PATHOPHYSIOLOGY I	4	2		6	KOTSIOU URANIA
ΠΠΝ113	CC	INTRODUCTION TO NURSING SCIENCE	4	4		9	MALLIAROU MARIA
ΠΠΝ114	CC	CELL BIOLOGY- CLINICAL BIOCHEMISTRY	2	1		4	RUKA ERASMIA
ΠΠΝ115	CC	HEALTH PSYCHOLOGY	2			2	PAPATHANASIOU IOANNA
ΠΠΝ116	EC	HISTORY OF THERAPEUTICS AND NURSING	2			2	VALIAKOS ELIAS
ΠΠΝ117	EC	ENGLISH TERMINOLOGY	2			2	FOREIGN LANGUAGE DEPARTMENT
ΠΠΝ118	EC	INTRODUCTION TO COMPUTER SCIENCE	2	2		2	MANTZARIS DEMETRIOS

2ND SEMESTER

CODE	COURSE TYPE	COURSE TITLE	HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/ TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ211	CC	PHYSIOLOGY & PATHOPHYSIOLOGY II	4	2		6	KOTSIOY URANIA
ΠΠΝ212	CC	NURSING FUNDAMENTALS	4	4		9	MALLIAROU MARIA
ΠΠΝ213	CC	EPIDEMIOLOGY	2	1		3	TSARAS KONSTANTINOS
ΠΠΝ214	CC	BIOETHICS & PROFESSIONAL DEONTOLOGY	2	1		3	MAVROFOROU ANNA

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

ΠΠΝ215	CC	COMMUNITY NURSING	4		4	7	PAPATHANASIOU IOANNA
ΠΠΝ216	EC	NURSING THEORIES	2			2	FRADELOS EVANGELOS
ΠΠΝ217	EC	GENETICS	2			2	RUKA ERASMIA

3RD SEMESTER

CODE	COURSE TYPE	COURSE TITLE	HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ311	CC	INTERNAL MEDICINE I	3			4	MALLI FOTEINI
ΠΠΝ313	CC	SURGERY	2			2	KOUKOULIS GEORGE
ΠΠΝ313	CC	MEDICAL NURSING I	4		4	10	SARIDI MARIA
ΠΠΝ314	CC	SURGICAL NURSING I	4		4	10	MALLIAROU MARIA
ΠΠΝ315	CC	CLINICAL PHARMACOLOGY	2			2	PAPANDRIANOS NIKOS
ΠΠΝ316	EC	HEALTH SOCIOLOGY	2			2	LAKIOTI EVANGELIA
ΠΠΝ317	EC	COMMUNICATION SKILLS AND COUNSELLING	2			2	PAPAGIANNIS DEMETRIOS
ΠΠΝ318	EC	SKIN CARE	2			2	ZAFIRIOU EFTERPI

4TH SEMESTER

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ411	CC	INTERNAL MEDICINE II	3			4	MALLI FOTEINI
ΠΠΝ412	CC	MEDICAL NURSING II	4		4	9	SARIDI MARIA
ΠΠΝ413	CC	SURGICAL NURSING II	4		4	8	MALLIAROU MARIA
ΠΠΝ414	CC	HEALTH INFORMATICS	2	2		2	MANTZARIS DEMETRIOS
ΠΠΝ415	CC	DIAGNOSTIC NURSING	2	2		5	FRADELOS EVANGELOS
ΠΠΝ416	EC	IMAGING TECHNIQUES- PRINCIPALS OF RADIATION THERAPY	2			2	TSOUGKOS CHRYSOVALANTIS- IOANNIS
ΠΠΝ417	EC	ONCOLOGY NURSING	2			2	SLOUSTROS EMMANOUIL

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

ΠΠΝ418	EC	OCCUPATIONAL HEALTH & SAFETY	2			2	PAPAGIANNIS DEMETRIOS
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5TH SEMESTER

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ511	CC	MICROBIOLOGY-INFECTION CONTROL NURSING	3		3	6	RUKA ERASMIA TOSKA EKATERINI
ΠΠΝ512	CC	FIRST AID-EMERGENCY NURSING	3	2	3	11	PANTAZOPOULOS IOANNIS
ΠΠΝ513	CC	MATERNITY NURSING-GYNAEOLOGY	2		2	4	TOSKA EKATERINI
ΠΠΝ514	CC	PALLIATIVE CARE-CHRONIC PAIN MANAGEMENT	3	1		4	PAPATHANASIOU IOANNA
ΠΠΝ515	CC	APPLIED BIOSTATISTICS-RESEARCH METHODOLOGY	3	1		3	TSARAS KONSTANTINOS
ΠΠΝ516	EC	TRANSCULTURAL NURSING	2			2	PARALIKAS THEODOSIOS
PBN517	EC	HEALTH SERVICES ORGANISATION & MANAGEMENT	2			2	SARIDI MARIA
ΠΠΝ518	EC	REHABILITATION	2			2	PARALIKAS THEODOSIOS
ΠΠΝ519	EC	TELEMATICS SERVICES IN HEALTH	2	2		2	MANTZARIS DEMETRIOS
ΠΠΝ520	EC	INTRODUCTION TO ENTREPRENEURSHIP	3			2	GEROGIANNIS VASILIOS KARAGOUNI EVANGELIA TRIGKAS MARIOS

6TH SEMESTER

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ611	CC	RESPIRATORY & CARDIAC HEALTH CARE	3		2	7	MALLI FOTEINI
ΠΠΝ612	CC	PAEDIATRICS	2			3	AUTHORISED PROFESSOR

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

ΠΠΝ613	CC	PAEDIATRIC NURSING CARE	3	2	2	9	TOSKA EKATERINI
ΠΠΝ614	CC	PSYCHIATRY-MENTAL HEALTH NURSING	3		2	6	PAPATHANASIOU IOANNA
ΠΠΝ615	CC	DIETARY CARE & NUTRITION	3			3	MALLI FOTEINI KONTOPOULOU LABRINI
ΠΠΝ616	EC	SCIENTIFIC WRITING	2			2	TSARAS KONSTANTINOS VALLIAKOS ELIAS STILA DESPINA
ΠΠΝ617	EC	HEALTH ECONOMICS	2			2	EKONOMOU ATHENA
ΠΠΝ618	EC	BIOMEDICAL TECHNOLOGY	2			2	PAPANDRIANOS NIKOS
ΠΠΝ619	EC	SCHOOL NURSING	2			2	PAPATHANASIOU IOANNA
ΠΠΝ620	EC	PRINCIPLES OF PROGRAMMING AND COMPUTATIONAL INTELLIGENCE IN HEALTH SCIENCES	3	3		2	MANTZARIS DEMETRIOS
ΠΠΝ621	EC	DEVELOPMENT OF BUSINESS PLANS	3			2	GEROGIANNIS VASILIOS KARAGOUNI GLIKERIA TRIGKAS MARIOS

7TH SEMESTER

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ711	CC	PUBLIC HEALTH NURSING AND PREVENTION	3			3	TSARAS KONSTANTINOS PAPAGIANNIS DIMITRIOS
ΠΠΝ712	CC	ANAESTHEOLOGY NURSING	2		2	5	ARNAOUTOGLOU ELENI
ΠΠΝ713	CC	CLINICAL NURSING I			16	15	FRADELOS EVANGELOS
ΠΠΝ714	CC	CHRONICALLY ILL & ELDERLY NURSING CARE	3	2		5	PARALIKAS THEODOSIOS
ΠΠΝ715	CC	TEACHING METHODS IN NURSING	2			2	STILA DESPINA

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

8TH SEMESTER

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/ TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΠΝ811	CC	CLINICAL NURSING II			16	15	FRADELOS EVANGELOS
ΠΠΝ812	CC	OPERATION ROOM NURSING-ENDOSCOPY	2		2	4	ARNAOUTOGLU ELENI
ΠΠΝ813	CC	EVIDENCE-BASED CLINICAL PRACTISE	2			2	KOTSIU URANIA
ΠΠΝ814	CC	INTENSIVE CARE-NURSING IN I.C.U	4	2	2	9	MAKRIS DEMOSTHENIS

**UNIVERSITY SIMULATION PROGRAMME OF THE NURSING
DEPARTMENT**

1ST SEMESTER OF SIMULATION

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTICE	ECTS	
ΠΝΕΞ111	CC	CLINICAL ANATOMY	4	2		7	KOTSIU URANIA
ΠΝΕΞ112	CC	MICROBIOLOGY - INFECTION CONTROL NURSING	3		3	6	RUKA URANIA TOSKA EKATERINI
ΠΝΕΞ113	CC	CHRONICALLY ILL & ELDERLY NURSING CARE	3	2		5	PARALIKAS THODOSIOS
ΠΝΕΞ114	CC	TEACHING METHODS IN NURSING	2			2	STILA DESPOINA
ΠΝΕΞ115	CC	FIRST AID- EMERGENCY NURSING	3	2	3	11	PANTAZOPOULOS IOANNIS

2ND SEMESTER OF SIMULATION

CODE	COURSE TYPE	COURSE TITLE	TEACHING HOURS PER WEEK				PROFESSOR IN CHARGE
			THEORY	LAB/TUTORIAL	CLINICAL PRACTISE	ECTS	
ΠΝΕΞ21 1	CC	BIOETHICS AND PROFESSIONAL DEONTOLOGY	2	1		3	MAVROFOROU ANNA
ΠΝΕΞ21 2	CC	DOCUMENTED CLINICAL PRACTICE	2			2	KOTSIU OURANIA
ΠΝΕΞ21 3	CC	INTENSIVE CARE- NURSING IN I.C.U	4	2	2	9	MAKRIS DIMOSTHENIS
ΠΝΕΞ21 4	CC	OPERATION ROOM NURSING- ENDOSCOPY	2		2	4	ARNAUTOGLOU ELENI
ΠΝΕΞ21 5	CC	CARDIOVASCULAR PATIENT CARE	3		2	7	MALLI FOTEINI
ΠΝΕΞ21 6	CC	DIAGNOSTIC NURSING	2	2		5	FRADELLOS EVANGELOS

Detailed course description

1ST SEMESTER

CLINICAL ANATOMY

ΠΠΝ111/ΠΝΕΞ111

TEACHING	Lectures	4 hours/week	4 ECTS
	Laboratory	2 hours/week	3 ECTS

CATEGORY OF LESSON Compulsory

LEARNING OUTCOMES

The subject of Clinical Anatomy examines Anatomy in relation to clinical practice. For this reason, it is also called Functional or Applied Anatomy. Many diseases are examined whose differential diagnosis is based on the morphology of the anatomical elements. The student should be able to:

- Identify the structure of human organs and their anatomical relationships with the surrounding tissues
- Identify the most common anatomical variations in the structure and location of organs (horseshoe kidney, esophageal atresia, ectopic hepatic artery dehiscence)
- Identify anatomical areas and relate them to clinical practice (palpation, listening, impact, clinical symptom)
- Relate the anatomy of the organs to imaging in the transverse, coronal-ovarian level (CTA, MRI, mammography, ultrasound)

Clinical Anatomy is a basic course of nursing studies where through an integrated teaching of Descriptive, Topographical, Radiological and Clinical Anatomy complemented with Histology, the student will be able to demonstrate the various systems and organs of the human body. The course material aims at understanding the terms and anatomical details related to the different organ systems. Along with the study of the form and structure of the human body, students will be taught the parameters that affect the form and structure as well as the functions of the morphological components of the body.

At the end of each simulation lecture - tutorial, comprehension exercises will be solved, while the student will develop his/her ability to clearly identify structures in clinical practice using models, anatomy atlases and demonstration of various imaging methods and histological preparations. Therefore, upon completion of the course, students will be familiar with the terminology, anatomical features and location of bones, muscles, solid organs, endocrine glands, and sensory organs of the human body, as well as the differences in functional systems in both sexes.

COURSE CONTENT

1. Introduction to topographical, systematic, and clinical anatomy

2. Anatomy terminology, movements, positions, sections, levels
3. The musculoskeletal system (skull, chest, spine, pelvis, upper and lower limbs)
4. The heart system
5. The circulatory system (vascular-lymphatic)
6. The respiratory system
7. The gastrointestinal system
8. The genital system
9. The urinary system
10. The central nervous system
11. The peripheral nervous system
12. The endocrine system
13. The sensory organs

RECOMMENDED BIBLIOGRAPHY

- Anatomy of Man, Anne M. Gilroy
- Netter's Clinical Anatomy 2nd Edition
- Clinical Anatomy 2nd edition, Moore K.L.
- Grant's Anatomy, Agur A.
- Elements of Human Anatomy, Ioannis Hadjibougias
- Handbook of Descriptive Anatomy, Platzer, Fritsch, Kuhnel, Kahle, Frotscher
- Sobotta Anatomy with Color Atlas, Waschke Jens, Bockers M. Tobias, Paulsen Friedrich

TEACHING	Lectures	4 hours/week	4 ECTS
	Laboratory practice	2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory		

LEARNING OUTCOMES

The aim of the course is to help students understand the physiological mechanisms that govern the functioning of the human body in health and disease. At the end of the course, the student will be able to explain and describe the physiological functions of the human body and relate deviations from the various mechanisms to disease. Specifically, the student at the completion of the course will understand:

- the structure and function of cells and the concept of homeostasis
- the mechanisms of the hematopoietic and lymphatic systems and disorders
- the mechanisms of anemias, hemorrhagic and thrombotic disorders
- the mechanisms of lymphatic system disorders (lymphoma, leukemia)
- the mechanisms of atherosclerosis, venous thrombosis, and arterial hypertension
- the function of the immune system and its disorders
- the functioning of the respiratory system, the mechanisms of gas exchange and diffusion and disorders thereof
- the pathophysiological mechanisms of hypoxemic and hypercapnic respiratory failure and the pathogenetic causes of respiratory acidosis and alkalosis
- the transport of gases to the tissues
- the function of the heart as a pump, the characteristics of blood flow, the regulatory mechanisms of the cardiovascular system and their disorders
- the causes and mechanisms of coronary heart disease, congestive heart failure, angina pectoris, hypertensive heart disease, myocardial infarction
- the mechanisms of repair of damage and injury to tissues

COURSE CONTENT

- Introduction - Definitions
- Basic principles of cell physiology
- Homeostasis/hematopoietic system
- Immune system-immune response
- Hematopoietic system disorders (anemia, lymphoma, leukemia, multiple myeloma, coagulation mechanism disorders)
- Cardiovascular and circulatory system

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Diseases of the cardiovascular and circulatory system (coronary artery disease, angina pectoris, acute myocardial infarction, congestive heart failure, venous and arterial thrombosis, vasculitis, arterial hypertension)
- Respiratory system
- Respiratory system diseases (hypoxemic and hypercapnic respiratory failure, obstructive diseases, restrictive diseases, cystic fibrosis, chronic obstructive pulmonary disease)
- Tissue repair mechanisms, trauma, inflammation

RECOMMENDED BIBLIOGRAPHY

- Vander's Physiology of Man 2nd ed., Widmaier Eric, Raff Hershel, Strang Kevin
- Ganong's Medical Physiology, Barrett K.
- Physiology, Linda S. Costanzo
- Human Physiology for Health Sciences (2nd Edition), Panoutsopoulos I. George
- Pathophysiology, Nair M., Peate I.
- Human Physiology, Carrie Mahoney
- Human Physiology-Basic Principles, Pocock G., Richards C.D., Richards D.A.

INTRODUCTION TO NURSING SCIENCE

ΠΠΝ113

TEACHING	Lectures	4 hours/week	5 ECTS
	Laboratory	4 hours/week	4 ECTS
TYPE OF COURSE	Compulsory		
LEARNING OUTCOMES			

The aim of the course is to familiarize students with the concepts, principles, theories, and practices applied in Nursing science, so that they can understand what nursing is and its general theoretical background, historical elements that influenced its development. Upon successful completion of the course the student will be able to demonstrate the following learning outcomes:

- Describe the historical development, definitions, and recognition of nursing as a profession and as a science,
- define health and the factors that influence it and the role of the nurse in promoting the health of individuals and groups.
- describe the basic human needs and the interventions to meet them in the individual, family, and community
- explore the individual, interpersonal and cultural factors that influence the health of individuals and groups,
- identify and interpret the role of the nurse in different health care settings,
- identify and interpret the role of the nurse in the multidisciplinary health care team for the care of individuals and families,
- demonstrate effective communication skills and apply therapeutic communication techniques when caring for patients,
- understand how the nursing process is applied in different therapeutic contexts, and
- identify illegal and/or unethical practice in various therapeutic contexts.

COURSE CONTENT**Theoretical part**

- History of nursing science. The concept of care. The professional practice of Nursing.
- Organisation of Health Services and treatment frameworks. Greek Health Care System. Admission-Discharge from the Hospital. Continuity of care.
- Health - Disease - Illness - Health Education and Health Promotion
- Prevention - Levels of prevention
- Basic human needs. Therapeutic environment - therapeutic relationship - therapeutic

communication

- Patient safety. Management of falls. Safe care environment
- Communication - Principles of communication in the therapeutic environment – Therapeutic relationship
- Personal protective equipment. Contact precautions - Airborne precautions - Droplet precautions
- Vital signs - evaluation - recording
- Body mechanics. Techniques for proper patient movement
- Infection control. Asepsis, principles of surgical asepsis. Disinfection, sterilization. Hospital acquired infections and its recording criteria.
- Nursing Process - Nursing History - Nursing Diagnosis - Nursing Diagnosis - Care Plan – Care Evaluation
- Basic Principles of Drug Administration. Administration of medicines by oral and other non- parenteral routes
- Excretion function. Straightening of the bowel

Laboratory part

- Patient environment in the hospital. Patient's ward. Safe care environment and restrictions. Patient's fall risk assessment
- Hand Hygiene - Use of protective equipment - Personal Protective Equipment (gloves - mask). Contact precautions - aerial precautions - Droplet precautions
- Application and removal of sterile gloves. Preparation and handling of sterile field and material. Special equipment
- Laying of a single bed without patient/with patient. Surgical bed stacking by 2 nurses
- Care of the bedridden patient - Personal hygiene. Body bath in a bedridden patient. Head washing in a bedridden patient. Assisting the patient in oral cavity hygiene. Providing oral care and dentures to dependent patient.
- Body mechanics and safe weight handling techniques, general principles of lifting an object. Patient handling techniques. Patient movement in bed. Moving patient from bed to a stretcher. Moving patient from bed to a wheelchair. Patient's positions in bed
- Vital signs temperature measurement - Vital signs of pulse assessment
- Vital Signs of breathing assessment - Vital Signs of Blood pressure measurement
- Nursing history. Nursing forms. Nursing care plan
- Nursing documentation of medication administration. Principles of drug administration (oral, other non-parenteral routes)
- Surgical hand washing. Preparation and maintenance of the sterile field. Management of sterile instrument material - clothing. Application of sterile gloves by the closed method. Procedure for dressing toolmaker.

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Dissolution/suction technique from ampoule and phial, enrichment of solutions with various electrolytes, trace elements, vitamins, adjustment of the flow of administered fluids per 24 hours
- Function of excretion. Application and removal of scab. Collection of fecal sample-administration of substitute-hypo enema-application of gas tube

RECOMMENDED BIBLIOGRAPHY

- Introduction to nursing science and health care, Paschalidis Publications
- Clinical Nursing Skills and the Nursing Process, Lynn P. Paschalidis Publications

TEACHING	Lectures 2 hours/week	2,5 ECTS
	Laboratory practice 1 hour/week	1,5 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The aim of the course is to understand the properties of living matter and the biological- biochemical basis of common diseases. At the same time, the concept of biological markers and their numerous applications in clinical practice is introduced.

Upon completion of the course students will be able to:

- Describe the organization of biological systems and the basic processes that govern their functioning.
- Correlate the clinical manifestations of common diseases with the underlying biochemical disorders at the cell and organism level.
- Recognize the ways in which biochemical results are expressed and the factors that influence their interpretation.
- Understand the clinical importance of biological markers in the diagnosis and prognosis of diseases and in the monitoring of their therapeutic course.

COURSE CONTENT

- Introduction to the sciences of biology and biochemistry. Organization and properties of living matter.
- Proteins and enzymes.
- Fluid and electrolyte balance.
- Control of kidney function.
- Acids-Bases.
- Carbohydrates - Glucose metabolism and diabetes mellitus.
- Calcium regulation, hypercalcemia, and hypocalcemia.
- Pituitary function, developmental disorders, and acromegaly.
- Pathophysiology of the thyroid.
- Pathophysiology of the adrenal cortex.
- Gonadal function and pregnancy.
- Nutritional assessment.
- Lipids-Clinical disorders of lipid metabolism.

- Cancer and cancer markers.

Tutorial

- Organization and operation of the biochemical laboratory.
- Internal and External Laboratory Quality Control.
- Interpretation of the results.
- Analysis of clinical cases.

RECOMMENDED BIBLIOGRAPHY

1. Gaw Allan, Cowan Robert A., O'Reilly Dennis S. J., Stewart Michael J., Shepherd James. Clinical Biochemistry. Colour illustrated textbook. Parisianus Publications Inc. Edition 4/2010. η Book Code on Eudox: 42049.
2. John W. Baynes, Marek H. Dominiczak. Medical Biochemistry. Year Current. Book code in Eudox: 94691880.
3. William J. Marshall, Marta Lapsley, Andrew P. Day, Ruth M. Ayling. Clinical Biochemistry. Metabolic and clinical dimensions. Utopia Publications. Year Current. 2021. Book code on Eurodex: 94689642.
4. Jeremy M. Berg, John L. Tymoczko, Gregory J. Gatto, Jr, Lubert Stryer. Biochemistry. Translation of the 9 ης American edition. Year Current. Edition 2021. Book Code in Eudox:102074412.
5. Nelson David L., Cox Michael M. Lehninger's Basic Principles of Biochemistry 2nd edition. Publisher Broken Hill Publishers LTD. Year Current. Brobroken Hill, Broken Hill, Inc. Book Codein Eudox: 77107011

Related Scientific Journals

- Cell (<https://www.cell.com/cell/home>).
- Nature Cell Biology (<https://www.nature.com/ncb/>).
- Annual Review of Biochemistry (<https://www.annualreviews.org/journal/biochem>).
- Journal of Clinical Investigation (<https://www.jci.org/>).
- Cell Chemical Biology (<https://www.cell.com/cell-chemical-biology/home>).
- Journal of Biological Chemistry (<https://www.jbc.org/>).

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

This course is a core course in the concepts of health psychology, human behavior, and psychological models of behavior in relation to health and illness. The course syllabus aims to introduce students to the biopsychosocial model as an interdisciplinary model for studying health issues, and the role of psychosocial influences on gene expression and inflammatory processes involved in physical diseases. Also discussed in the course are the physiological mechanisms by which stress, anger, loneliness, optimism, empowerment, mental resilience, and other psychosocial factors positively or negatively affect health.

Upon successful completion of the course the student will be able to:

- Describe how different perspectives on health and illness have changed over the years.
- Define critical thinking and apply critical thinking skills and dispositions.
- Describe how epidemiologists study health, disease, and risk factors.
- Address deontology and ethical issues in health psychology research.
- Describe the structure and function of cells, the nervous system, the endocrine glands, the respiratory system, and other systems of the human body.
- Describe the basic concepts of stress, common stressors and explain the physiology of stress and models of the relationship between stress and disease.
- Describe the variety of personal resources people can use to cope with stress.
- Identify and interpret stress coping strategies and evaluate their effectiveness.
- Know the main theories of health behavior.
- Identify the different strategies and interventions used to prevent health problems.
- Describe the principles of positive psychology and apply them in the field of health care.
- Explain how physical activity, exercise and sleep affect a person's physical, mental and emotional state.
- Identify ways in which injuries can be prevented.

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- Define food intake disorders and the treatments available to treat them.
- Explain the basic mechanisms of substance use-abuse and evaluate the effectiveness of interventions against substance addiction.
- Identify and describe the psychosocial factors associated with cardiovascular disease and diabetes.
- Identify strategies to prevent and reduce the risk of cardiovascular disease and diabetes.
- Identify what cancer is and what the important risk factors for cancer are.
- Describe and explain different coping strategies used for people with cancer.
- Explain the role of health psychology in the management of sexually transmitted diseases.
- Identify the basic parameters of the therapeutic relationship and effective therapeutic communication in the field of health psychology and treatment adherence.
- Define pain, identify, and apply methods of pain measurement and describe methods and interventions to reduce or treat pain.
- Identify major future challenges for health psychology in the clinical and research fields.

COURSE CONTENT

1. Introduction to Health Psychology: Health and Disease, Biopsychosocial Model
2. Research in Health Psychology: Critical Thinking, Evidence-based Nursing Practice, Research Methods, Epidemiological Research
3. Biological Bases of Health and Disease: Cells, Nervous System, Endocrine System, Cardiovascular and Respiratory System, Digestive System, Immune System, Reproductive System and Behavioral Genetics, Other Body Systems
4. Stress and Health: Stressors, Physiology of Stress, Models of Stress and Disease, Endogenous and Exogenous Stressors, Management and Adaptation
5. Health and Behavior: Healthy and Risky Behaviors, Theories of Health Behaviors, Prevention, Mental Resilience and Well-Being
6. Exercise, Sleep, Injury Prevention
7. Nutrition, Obesity and Food Intake Disorders
8. Substance Use, Abuse and Addiction: Mechanisms of Substance Action, Models of Addiction, Use and Abuse of Alcohol, Tobacco, and other Psychotropic Substances
9. Cardiovascular disease and Diabetes: Psychosocial Factors, Risk Reduction, Diversity and Healthy Lifestyles
10. Cancer: risk factors, treatment, cognitive and behavioral interventions
11. Sexually transmitted infections: Risky Health Behaviors, Prevention, Stigma and Psychological Interventions
12. Therapeutic Relationship: interpretation of the symptom, therapeutic communication, factors affecting the therapeutic relationship
13. Management of Pain: Components and Epidemiology of Pain, Measurement Scales, Factors Affecting the Experience of Pain, Therapeutic Approaches
14. Future Challenges in Health Psychology

RECOMMENDED-BIBLIOGRAPHY

1. Straub O. Richards, Health Psychology - A Biopsychosocial Approach, Broken Hill Publishers LTD, 2021
2. Dimatteo M. Robin, Martin R. Leslie, Introduction to Health Psychology, Field Publications, 2011
3. Sarafino P. Edward, Smith W. Timothy, Psychology of Health, C. Dardanos - K. Dardanos Ltd., 2021
4. Papadatou Danae & Anagnostopoulos Fotios, Psychology in the Health Sector, Papazisis Publications SA, 2011
5. Karadimas Evangelos H., Psychology of Health, C. Dardanos - K. Dardanos, 2005.

Related Scientific Journals:

1. Health Psychology, <https://www.apa.org/pubs/journals/hea/>
2. Journal of Health Psychology, <https://journals.sagepub.com/home/hpq>
3. British Journal of Health Psychology, <https://onlinelibrary.wiley.com/page/journal/20448287/homepage/productinformation.html>
4. Frontiers in Psychology, <https://www.frontiersin.org/journals/psychology/sections/health-psychology>
5. Mental Health and Global Challenges Journal, <https://www.mhgcj.org/index.php/MHGCI/abthej>
6. Health Psychology Research, <https://www.pagepressjournals.org/index.php/hpr/article/view/8234>

TEACHING	Lectures	2 hours/per week	2 ECTS
TYPE OF COURSE	Optional		

LEARNING OUTCOMES

The aim of the course is to provide students with knowledge about the history of nursing science in Greece and internationally, the events that have been a milestone in the development of nursing and the latest developments in the field of nursing. The course aims to introduce students to the nursing of ancient peoples and more broadly to nursing in Ancient Greece (Crete, Homeric Epics, Asclepius, Hippocratic therapeutics) and then to the therapeutic methods used in Byzantium, the Arabs, the West, and the New World. To understand the contribution of Monastic and Folk healing and nursing and finally, to be introduced to the newer methods of the 19th and 20th century. They will also get to know personalities of nursing who have stood out throughout the centuries, distinguishing also its theoretical and practical background, such as: Henry Dunant, International Red Cross. The lectures and presentations will conclude with the Modern Greek Nursing, the National Association of Nurses of Greece, and personalities of Modern Greek Nursing.

COURSE CONTENT

- “Beginnings” of Nursing - primitive peoples
- Nursing in the ancient eastern peoples (China, Persia, Persia, India, Mesopotamia, Judea, Egypt)
- Nursing in Ancient Greece (Crete, Homeric Epics, Asclepius, Hippocratic)
- Nursing in Byzantium
- Nursing in the Arabs
- Nursing in the West (Middle Ages, Renaissance, Enlightenment)
- Monastic and Folk Healing
- Nursing in the New World
- Nursing in the 19th and 20th century. Personalities of Nursing
- Theoretical background of Nursing Science
- Nursing in the war - Henry Dunant - International Red Cross
- Modern Greek Nursing: From the Fall of Constantinople to the Revolution of 1821, revolutionary times
- Modern and Contemporary Greek Nursing: from the liberation of Greece to the present day. National Association of Nurses of Greece and personalities of Modern Greek Nursing and the Greek Red Cross

RECOMMENDED-BIBLIOGRAPHY

- Kourkouta Lambrini, The History of Nursing, Athens 2010, P.H. Paschalidis Publications, ISBN 9789603999645
- Rigatos Gerasimos, The History of Nursing, From Charitable Art to Modern Science, Athens 2008, VITA Publications, ISBN 9789604520190

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to familiarize students with English texts on Nursing and to develop their skills through reading, audiovisual and other activities in English so that they can understand the English written and spoken language in their specialty. More specifically, students are taught English terminology related to their field of study through contemporary, authentic, English texts that refer to areas such as Biology, Nursing, Anatomy, etc.

Basic structure of each lesson:

Part 1: Practical practice in multiple-choice exercises with general nursing and medical English vocabulary.

Part 2: Showing an English-language video on English nursing and medical terminology.

Part 3: Grammar-syntax analysis of an English text with nursing and medical content.

Part 4: Viewing and analysis in the form of a written test of contemporary English nursing-medical TV series (Greys Anatomy, House MD, Night Shift, etc.).

Main expected results:

- a) acquisition of basic English vocabulary on nursing science by students
- b) familiarity with English texts on their subject matter
- c) understanding of English speech and related grammatical and syntactic phenomena through a variety of audiovisual activities
- d) acquaintance with a variety of topics in the sciences of Nursing and Medicine through English texts and audiovisual videos with or without English subtitles
- e) production of English spoken and written English through activities such as the Occupational English Test for Nurses & Doctors.

COURSE CONTENT**1st week**

- Introduction to the course
- Basic terms
- Interactive multiple-choice exercises on relevant terminology
- Anglophone video about Biology
- Analysis of English text with emphasis on the basic principles of Biology.

2nd week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video about Evolutionary Biology
- Presentation of common grammatical phenomena in nursing-medical texts
- Analysis of English text with emphasis on the different branches of biology.

3rd week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video about chemical affinity
- Presentation of common grammatical phenomena in medical texts (continued)
- Analysis of English text with emphasis on the evolution and development of the human species.

4th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video about the cytoplasm and the structure of the cell
- Exercises with electronic text corpora of medical content
- Analysis of English text with emphasis on psychobiology.

5th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video about the students with the phenomena of Diminution and Mitosis
- Analysis of English text with emphasis on Systems Biology.

6th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video about lichens and lysosomes
- Analysis of English text with emphasis on the combination of conventional and alternative medicine.

7th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video on psychology in health care
- Analysis of English text with emphasis on the basic principles of medicinal chemistry.

8th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Anglophone video on patient management by nurses
- Analysis of English text with emphasis on the potential of medicinal chemistry to cure diseases.

9th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Screening of the whole film on Medicine (asking questions to the students after the screening)
- Conducting acoustic activity with nursing-medical content
- Analysis of English text with emphasis on Medical Physics.

10th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Showing a short video on how a nursing letter should be developed in writing (questioning students after the screening) and assigning a written letter using data information and notes
- Conducting acoustic activity with nursing-medical content
- Analysis of English text with emphasis on Imaging Techniques.

11th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Showing a video on First Aid (asking questions to students after the screening)
- Conducting acoustic activity with nursing-medical content
- Analysis of an English text with emphasis on the role of Physics in Nuclear Medicine.

12th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Showing a video on endoscopic procedures (questions to students after the screening)
- Conducting an activity using electronic text corpora
- Analysis of English text with emphasis on epidemics and the mechanisms of emerging infections.

13th week

- Interactive multiple-choice exercises on relevant terminology (continued)
- Showing a short video on palliative care
- Preparation for the exams.

RECOMMENDED-BIBLIOGRAPHY

Printed bibliography:

- ENGLISH-GREEK GREEK-ENGLISH DICTIONARY OF MEDICAL TERMS, GEORGIOS
- MICHAELIDIS, NELLY VESOU-MAGOUTI
- DORLAND'S MEDICAL DICTIONARY ENGLISH ENGLISH AND GREEK-ENGLISH

Electronic bibliography:

- <http://docshare04.docshare.tips/files/7985/79854528.pdf>
- https://en.wikibooks.org/wiki/Structural_Biochemistry/Medicinal_Chemistry
- <https://www.thenakedscientists.com/articles/features/pandemic-where-do-new-viral-infections-come>

TEACHING	Lectures 2 hours/week	1 ECTS
	Laboratory practice 2 hours/week	1 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to familiarize students with the basic principles of Computer Science and New Technologies as well as the skills required for their use, so that they understand and use the potential of Computer Science in their education, clinical practice and research and are able to follow the developments in the field.

After successful completion of the course, students will be able to:

- Define the basic concepts of Computer Science
- Understand the operation of computer systems
- Distinguish the subsystems of the structure of computer systems
- Present the categories of operating systems and their functions
- Operate operating systems
- Operate word processing software
- Operate spreadsheet software
- Operates presentation software
- Understand and operate modern and asynchronous tele-education systems
- Create and operate health databases
- Operate image editing software
- Operate video editing software
- Operate audio editing software

COURSE CONTENT

- Definitions, basic IT concepts, Historical development of IT
- Analogue and digital data
- Structure of computer systems
- Computer software
- Algorithms, data flow diagrams
- Operating systems
- Basic processes of an operating system
- Text editing software
- Spreadsheet software
- Software and basic principles of presentation creation
- Image processing software
- Video editing software
- Audio editing software
- Modern and asynchronous tele-education environments

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Mail management software and environments
- Cloud technology and its exploitation software

RECOMMENDED-BIBLIOGRAPHY

1. Panagiotakopoulos Christos, Introduction to Informatics, 2020, Gotsis Konstantinos & Sia, ISBN 9789609427869
2. Glava Mary, 7 IN 1 WINDOWS 10 - OFFICE 2016, 2018, DISIGMA Publications, ISBN: 978-618-5242-26-8
3. Evans Alan, Martin Kendall, Poatsy Mary Anne, Introduction to computing: Theory and Practice, 2018, Critical Publications SA, ISBN 978-960-586-236-7
4. Vermaat Misty, Sebok Susan, Freund Steven, Campbell Jennifer, Campbell Jennifer, Frydenberg Mark, Discovering Computers: Tools, Applications, Devices and the Impact of Technology, 2017, BROKEN HILL PUBLISHERS LTD, ISBN: 9789963274475
5. Behrouz Forouzan, Introduction to Computer Science, 2015, Keydarithmos Publications Ltd, ISBN: 978-960-461-660-2
6. Beekman Ben, Beekman George, Introduction to Computer Science, 10th Edition, 2015, H. Gourda & Gourda, 10th ed. LTD., ISBN: 978-960-512-667
7. Mantas Ioannis, Introduction to Informatics, Athens 2007, Broken Hill Publishers LTD, ISBN 9789603996026
8. Norton Peter, Introduction to computers. 2011, Giolas Publications, ISBN 960-418-056-8

PHYSIOLOGY AND PATHOPHYSIOLOGY II**ΠΠΝ211**

TEACHING	Lectures 4 hours/week	4 ECTS
	Laboratory practice 2 hours/week	2 ECTS

TYPE OF COURSE Compulsory**LEARNING OUTCOMES**

In the context of the course, students will understand the physiological and pathophysiological mechanisms that govern the functioning of the human body. Upon completion of the course, the student will be able to explain and describe the physiological functions of the human body and relate pathological mechanisms to disease. Upon completion of the course, the student will understand:

- the physiology of the gastrointestinal system, gut motility, digestion, and nutrient absorption
- liver and biliary physiology and disorders (cirrhosis, hepatitis, biliary tree lithiasis)
- gastrointestinal disorders (constipation, diarrhea, reflux, peptic ulcer, irritable bowel syndrome)
- the physiology of the kidneys and urination, the regulation of extracellular fluids
- the mechanisms of metabolic acidosis and alkalosis
- the physiology of the endocrine system and the mechanisms of hormone action
- the physiology of the hypothalamic-pituitary axis, bones, thyroid gland, adrenal glands
- the mechanisms of diabetes mellitus, metabolic syndrome, thyroid gland and adrenal gland diseases
- the physiology of the male and female reproductive system
- the physiology of pregnancy and reproduction
- the physiology of neuromuscular synapse, muscle cell contraction, the neurophysiology of movement and reflexes
- the mechanisms of vascular strokes, epilepsy, demyelinating and neurodegenerative diseases

COURSE CONTENT

- Introduction- Definitions
- Physiology of the gastrointestinal system
- Constipation, irritable bowel syndrome, gastro-esophageal reflux disease
- Liver and biliary physiology
- Cirrhosis, liver failure, hepatitis, cholelithiasis
- Kidney physiology
- Urinary tract disorders (glomerulonephritis, renal failure, metabolic acidosis, and alkalosis)
- Endocrine system - hormone mode of action

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- Hypothalamic-pituitary axis, adrenal glands, thyroid gland, parathyroid glands
- Pituitary-adrenal insufficiency, hyper and hypothyroidism
- Physiology of the endocrine and exocrine pancreas
- Diabetes mellitus, pancreatic insufficiency
- Metabolic syndrome-obesity
- Physiology of the reproductive system
- Pregnancy-reproduction
- Neuromuscular synapse-muscular contraction

RECOMMENDED-BIBLIOGRAPHY

- Medical Physiology, Rodney A. Rhoades
- Pathophysiology, Nair M., Peate I.
- Concise Physiology of Man, Kibble D. Jonathan
- Physiology, Linda S. Costanzo
- Human Physiology for Health Sciences (2nd Edition), Panoutsopoulos I. George
- Vander's Physiology of Man 2nd ed., Widmaier Eric, Raff Hershel, Strang Kevin
- PHYSIOLOGY OF MAN [CARRIE MAHONEY
- Human Physiology-Basic Principles, Pocock G., Richards C.D., Richards D.A.

TEACHING	Lectures	4 hours/week	4,5 ECTS
	Laboratory	4 hours/week	4,5 ECTS
TYPE OF COURSE	Compulsory		

LEARNING OUTCOMES

The aim of the course is to familiarize and prepare students with the basic principles and skills of nursing care in various health/personal care situations.

At the end of the course, students should be able to:

1. Describe what is called a hospital-acquired infection and the chain of infection and infectious agents, describe the modes of transmission and sources of hospital-acquired infections, know sharps management and CDC guidelines for avoiding sharp injuries.
2. Know the definitions of the terms: sterilization, disinfection, to describe the categories, handling, and action of disinfectants
3. Describe the main medication errors and ways of dealing with them
4. Know the principles of drug administration, the factors affecting safety during drug administration and the errors associated with it. Be aware of the legal dimensions associated with the administration of medicines
5. Properly prepare the medicine to be administered and apply the principles of administration to medicines taken orally. Correctly prepare the oral medication according to its form
6. Know the routes of parenteral administration of medicines. Assess the patient and select the appropriate anatomical position for intramuscular drug administration to apply correct technique during intramuscular drug administration. Assess the patient and select the appropriate anatomical position for subcutaneous drug administration. To apply the correct technique during subcutaneous drug administration. Correctly prepare the drug for intravenous administration and apply the correct technique for intravenous drug administration. Know the different forms of drugs administered through the skin and mucous membranes and apply the correct technique when administering drugs through the skin and mucous membranes
7. Identify and select the appropriate venous vessel to be punctured and apply the appropriate venipuncture techniques. Know, prevent and manage the complications of venipuncture
8. Know the types of solutions, electrolytes, trace elements, vitamins with which the solutions are enriched. To regulate the flow of administered fluids per 24hour period. Calculate the balance of fluid intake/output
9. Articulate the general principles of oxygen administration and the principles of oxygen administration safety. Apply the oxygen administration procedure. Know the differences between oxygen administration devices. Assess the clinical picture of the patient during oxygen therapy. Apply nebulization devices.
10. State the purposes of nasopharyngeal and oropharyngeal suctioning.

11. Apply appropriate suction techniques using aseptic technique according to international protocols and guidelines. Know, prevent and manage complications of nasopharyngeal and oropharyngeal suctioning
12. Assess the normal function of the bowel. Know the factors and conditions that affect normal bowel function. Apply appropriate nursing interventions to restore bowel function
13. Formulate the definitions of prostration, trauma, healing. To know the risk factors for the development of pressure ulcers and the stages of their development

COURSE CONTENT

THEORETICAL PART

- Basic Principles of Parenteral Drug Administration.
- Subcutaneous, Intramuscular administration of medicines
- Intravenous administration of fluids and medicines.
- Venipuncture. Taking blood and blood culture samples
- Blood and blood derivatives transfusion
- Enteral Feeding. Rhinogastric Catheter
- Midline cats. Basic principles. Placement and care of midline catheters
- Central Venous Catheters. Parenteral. Feeding
- Care of patients with respiratory problems. Safety principles of oxygen administration.
- Airway management. Oxygen therapy.
- Tracheostomy care. Oropharyngeal - Rhinotracheal Aspiration
- Skin integrity and care of bedsores. Wound care
- Care of stoma - colostomy - ileostomy – ileostomy
- Care of a patient with urination problems. Bladder catheterization. Specimen and culture management.
- Fundamentals of Interstitials

LABORATORY PART

- Subcutaneous drug delivery technique. Insulin administration. Technique of intradermal drug administration
- Technique of intramuscular drug administration
- Intravenous Administration of Liquids and Drugs. Adding Drugs to Intravenous Solution Container - Administration of Intravenous Solution. Regulation of Intravenous Infusion – Flow Rate - Rapid Intravenous Administration (bolus) - Volumetric devices - Calculation of fluid intake/expulsion balance.
- Intravenous Administration of Liquids and Medicines. Preparation of the venipuncture site - Performing venipuncture - Stabilization of the venipuncture site - Removal of the venipuncture site. Blood collection Culture collection. Taking tests and managing blood samples
- Blood and blood products transfusion. Procedure Protocol - Complications of Transfusion.

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- Placement of a nasogastric catheter (Levin). Providing enteral feeding. Removal of Renogastric Catheter (Levin)
- Middle Line Cats. Placement and care of midline catheters
- Central Venous Catheters. Care of patches and central venous catheters Parenteral nutrition
- Oxygen therapy - airway management - insertion of oropharyngeal - nasopharyngeal airway principles of oxygen administration safety. Respiratory care: Safe administration of oxygen, application of nasal cannula, oxygen mask, venturi mask; nebulization.
- Tracheostomy. Performing oropharyngeal suction. Performing Rhinotracheal Suction
- Bladder catheterization. Placement of Permanent Urinary Catheter in Male and Female Patient. Washing (Open - Closed) of Permanent Urinary Catheter. Application of Intermittent Bladder Catheterization. Obtaining a Sterile Urine Sample and c/a limb. Removal of permanent urinary catheter. Taking tests and managing urine samples
- Stoma Care. Colostomy - Eileostomy. Bowel stenosis - Testing and management of stool samples. Iowa Balance
- Skin Integrity-Prevention and Care of Pressure Ulcers - Staging. Wound Care – Bleeding Management
- Measurement of Central Venous Pressure-ICP. Basic principles of decannulation. Drainage Systems. Abdominal, Thoracic, Joint, Bone and Thoracic Paracentesis. Lumbar Puncture

RECOMMENDED BIBLIOGRAPHY

Perry G.A. (2011) Basic Nursing and Clinical Skills. Broken Hill Publishers Ltd.

TEACHING	Lectures 2 hours/week	2 ECTS
	Tutorial 1 hour/week	1 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The aim of the course is for students to understand the fundamental epidemiological principles, the measurement of morbidity and mortality, the relationship between the incidence of a disease and characteristics of the individual and the environment (risk factors / health determinants), the types of epidemiological studies, the accuracy and validity of epidemiological studies, the diagnostic quality of clinical and paraclinical data. Also, to enable students to evaluate the results of an epidemiological study. In particular, at the end of the course, the student will be able to:

- Fully understand the basic principles and concepts of epidemiology.
- Calculate measures of disease incidence.
- Understand the concepts of causality and risk factor.
- Calculate the relationship measures.
- Distinguish between random and systematic errors in an epidemiological study.
- Understand the concepts of confounding factor and effect modifier.
- Understand the design of different types of epidemiological studies and their advantages and disadvantages.
- Understand the relationship between the existence of a disease and a clinical or paraclinical finding.
- Have critical thinking in applied health sciences research.

COURSE CONTENT

1. Introduction to Epidemiology - Data sources - Population types
2. Morbidity: Frequency measures
3. Mortality: Frequency measures
4. Classification of Epidemiological Studies
5. Causality and causal relationships - Risk factor - Relationship measures
6. Descriptive Epidemiology: Synchronic & Ecological Studies
7. Analytical Epidemiology: The Cohort Studies
8. Analytical Epidemiology: Patient-Witness Studies
9. Analytical Epidemiology: Clinical Trials
10. Accuracy and Validity of Epidemiological Studies: Random and Systematic Errors (Selection, Information, Confounding)
11. Imprint - Stratification (Modification effect)
12. Disease and Diagnosis - Measurement errors - Diagnostic quality of clinical and paraclinical data (Sensitivity, Specificity, Likelihood ratios)
13. Diagnostic probabilities - Bayes Theorem

RECOMMENDED BIBLIOGRAPHY

1. Aschengrau A., Seage G.R. (2012) *Epidemiology*. Ed. Paschalidis, Athens, Greece.
2. Friis R.H., Sellers T.A. (2009) *Epidemiology and Public Health*. Ed. Paschalidis, Athens, Greece.
3. Trichopoulos D. (2002) *General and Clinical Epidemiology*. Handbook of Epidemiology and Principles of Clinical Research. D. Parisianos, Athens, Greece.
4. Trichopoulos D., Lagiou P.D. (2011) *General and Clinical Epidemiology*. Principles, methods and applications in medical research and public health. Principles, principles and methods of research and scientific research in research and research methodology. Parisians, Athens, Greece.
5. Sparos L.D. (2001) *Meta-Epidemiology or Applied Medical Research*. Causal-diagnostic, Inter- diagnostic, Pre-diagnostic. Ed. Vitas, Athens.
6. Galanis P.A., Sparos L.D. (2012) *Clinical & Epidemiological Research*. Basic Concepts. Ed. Vitas, Athens, Greece.
7. Galanis P.A., Sparos L.D. (2010) *Handbook of Epidemiology*. Ed. Veta, Athens, Greece.
8. Arvanitidou-Vayonas M. (2019) *Social, Preventive Medicine and Epidemiology*. University Studio Press, Thessaloniki, Greece.
9. Ahlbom A., Norell S. (2002) *Introduction to Modern Epidemiology*. Ed. Litsas, Athens, Greece.
10. Bonita R., Beaglehole R., Kjellstrom T. (2009) *Basic Epidemiology*. Ed. Paschalidis, Athens, Greece.

TEACHING	Lectures 2 hours/week	2 ECTS
	Laboratory practice 1 hours/week	1 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

As part of the course, students will understand the basic principles of bioethics, deontology and law (with an emphasis on nursing practice). During the course, the basics of law will be developed with an emphasis on the health professions, particularly nursing liability. Upon completion of the course, the student will have acquired the specific skills to seek and understand the rules of law.

Specifically, the student will, upon completion of the course, understand:

- The concepts of ethics, deontology, and law.
- Basic knowledge of the concepts of civil, criminal, and disciplinary liability in the public and private sector.
- Patients' rights and nursing confidentiality.
- The codes of nursing ethics.
- The basic concepts of bioethics.
- The relationship between bioethics and nursing.
- The principles governing patient information and consent.
- The application of the principles of bioethics in clinical research and the dilemmas that arise with the progress of biomedical sciences.
- The application of theoretical knowledge to specific cases in the practice of nursing (hypothetical scenarios or real cases).
- The role of the nurse in transplantation.
- The role of the nurse in assisted reproduction and artificial termination of pregnancy.

COURSE CONTENT

The theoretical part will include the following:

- Introduction to Bioethics and Law.
- Nurse-patient relationship-patient's rights-nurse's liability.
- Patient's consent.
- Civil, criminal, and disciplinary liability.
- Nursing deontology.
- Issues relating to the end of life (euthanasia), the beginning of life (e.g. assisted reproduction, artificial termination of pregnancy) and transplants.
- Decision-making in nursing practice.
- Nurse involvement in human subject's research.
- Clinical trials.

RECOMMENDED-BIBLIOGRAPHY

- Anna Mavroforou-Giannouka. Medical Responsibility and Ethics. University Publications of Thessaly. 2009.
- M Kanellopoulou Botis, F Panagopoulou-Kutnatzi. Medical Responsibility and Bioethics: Contemporary approaches and future perspectives. Broken Hill Publishers, 2013.

TEACHING	Lectures 4 hours/week	3,5 ECTS
	Clinical Practice 4 hours/week	3,5 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

To sensitize and familiarize students to the various forms of health care systems and the national health care system of our country. To enable students to provide comprehensive preventive and curative nursing care to individuals, families, groups in the community in all age groups and all health and disease conditions.

Upon successful completion of the course the student will be able to:

- Describe the importance of Primary Health Care
- Identify the factors that affect health.
- Assess the health status of the individual evolutionarily.
- Know the function of the family.
- Be aware of the various forms of health care systems and the national health care system of our country.
- Apply techniques to maintain the health of the individual and the family.
- Assess the health status of individuals, families, groups, and the community as a whole.
- Plan and implement primary, secondary and tertiary nursing interventions and evaluate their outcomes.
- Know and effectively use the tools and resources available in the community to meet the health needs of its members.
- Identify and effectively implement health education interventions, organize and implement teaching and information programs in schools, workplaces and various other population groups in the community.
- Assess the health status of work, studies, recreational and generally all public places and to carry out health and epidemiological investigation of the community and environmental nursing in general.

COURSE CONTENT

The course is developed around the following axes:

- Introduction to Community Nursing and its history
- Basic skills of Community Nurses
- Theoretical Framework of Community Nursing: Systems Theory, Theory of Self-Care, Theory of Adaptation
- Nursing Process in Community Nursing, and the methods of individual-family-community needs assessment
- Applications of Nursing Diagnosis in the Community, Family, Individual (Omaha system, NANDA system)

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Principles and practice criteria for quality and safety in the practice of community nursing
- Applications of Community Nursing in Public Health Sectors
Primary Health Care structures, roles, and activities of Community Nurses
- Nursing at Home
- Family Nursing
- Environment and Health. Dimensions of the role of the nurse
- Health Promotion - Health Education, Methodology, Health Education Models
- Intercultural approach to community health, Refugees and Migrants
- School Nursing
- Nursing and Occupational Health
- Health promotion for older people in the community
- Community Nursing and Disease Prevention: cardiovascular diseases, respiratory diseases, diabetes mellitus, mental disorders
- Chronic Diseases in the Community
- Legislation in the practice of Community Nursing

The clinical laboratory takes place in Community Structures and Primary Health Care Facilities, where students implement Nursing Interventions to assess the health needs of Communities, Community Populations, School Populations, Families, and Individuals and participate in the activities of the structures, in Health Education and Health Promotion activities and in the provision of nursing care to individuals and population groups.

RECOMMENDED BIBLIOGRAPHY

1. Kalokairinou - Anagnostopoulou A., Surtzi P. Community Nursing, VITA Publications, 2005
2. Kalokairinou - Anagnostopoulou A., Adamakidou Th.. Home Nursing Care, VITA Publications, 2014.
3. Kalokairinou - Anagnostopoulou A., Athanasopoulou - Voudourg M. Family Nursing, VITA Publications, 2010
4. Stanhope M., Lancaster J., Community Nursing, Broken Hill Publishers Ltd, 2015
5. Sines D., Applied Community Nursing, Broken Hill Publishers Ltd, 2011
6. Nies M.A., McEwen M., Community Nursing-Public Health Nursing, D. Lagos Publications, 2012

Related Scientific Journals:

1. Journal of Community Health Nursing;
<https://www.tandfonline.com/toc/hchn20/current>
2. British Journal Of Community Nursing
<https://www.magonlinelibrary.com/toc/bjcn/current>
3. Journal of Community & Public Health Nursing;
<https://www.omicsonline.org/community-public-health-nursing.php>

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4. Journal of Community Health; <https://www.springer.com/journal/10900>
5. The International Journal of Community and Social Development;
<https://journals.sagepub.com/home/cod>
6. Health and Social Care in the
Community; <https://onlinelibrary.wiley.com/journal/13652524>

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to present the work of many international nursing theorists. In this context, a description and analysis of the most important nursing theories and models as well as philosophical currents that influenced their development is attempted. Both an introduction to philosophy and contemporary philosophical currents and the connection between philosophy and nursing are attempted. In this context, the influence of contemporary philosophical currents on nursing and especially on the production of nursing knowledge is described. Central concepts that make up the “meta-paradigm of care” are also analyzed and interpreted. The development of nursing theories and nursing conceptual models and their application to nursing practice is described.

Upon successful completion of the course, the student will be able to:

- know the basic concepts of the philosophy of nursing
- understand the relationship between the philosophy and theory of nursing and nursing practice
- master the basic principles of analysis and development of the concepts that make up a theory.
- analyze the basic concepts that make up the metaparadigm of care
- know and analyze nursing theories and nursing models

COURSE CONTENT

1. Introduction to the course “Philosophy of Nursing-Nursing Theories”-History and philosophy of science - Structure, Development, and analysis of the theory
2. Florence Nightingale: Modern nursing
3. Interpersonal Relationship Theory - Hildegard Peplau
4. Definition of Nursing/14 Basic Needs - Virginia Henderson
5. Martha Rogers: Nursing Theory of Harmonic Totality
6. Self-realization theory - Rosemarie Rizzo Parse
7. Pamela Reed: The self-hypnosis theory
8. Margaret Newman: Health as Extended Consciousness
9. Jean Watson: The Science of Care as a Sacred Science
10. The General Systems Model -Imogene King
11. Katie Eriksson: Compassionate care
12. Dorothea Orem: Self-care/Lack of self-care
13. Betty Neuman: The model of systems
14. Callista Roy: The model of adaptation
15. Madeleine Leininger: Cultural care

RECOMMENDED-BIBLIOGRAPHY

- Suggested Bibliography:

- Pearson, A.,Vaughan, B., FitzGerald, M. (2011). Nursing Models for Practice. ION: Athens.
Alligood, M. (2015) Nursing theories. BROKEN HILL PUBLISHERS LTD: Athens.
Mantzoukas, S. (2015) Nursing Theories. Models and operations. Nursing Theories. BROKEN HILLPUBLISHERS LTD: Athens.
McEwen, M., Wills, E. (2013) Nursing theories. VITA: Athens.
Pearson, A.,Vaughan, B., FitzGerald, M. (2011). Nursing Models for Practice. ION: Athens.

-Other Related Bibliography:

- Cody., W. (2013). philosophical and theoretical perspectives for advanced nursing practice. Burlington, MA: Jones & Bartlett Learning.
Cowden, T.L, Cummings, G.G. (2012). nursing theory and concept development: a theoretical model of clinical nurses' intentions to stay in their current positions. J Adv Nurs. 68(7):1646-57
Fawcett, J., Desanto-Madeya., S. (2013). contemporary nursing knowledge: analysis and evaluation of nursing models and theories. Philadelphia, PA : F. A. Davis
Masters, M. (2015) Nursing theories: a framework for professional practice. Burlington, Massachusetts: Jones & Bartlett Learning
Powers, B.A., Knapp, T. (2011) Dictionary of nursing theory and research New York: Springer

Journals:

- Nursing Science Quarterly <https://journals.sagepub.com/home/nsq>
Nursing Philosophy <https://onlinelibrary.wiley.com/journal/1466769x>
International Journal of Nursing Knowledge <https://onlinelibrary.wiley.com/journal/20473095>

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to understand the basic principles underlying the mechanisms of genetics, the implications of chromosomal and extra-nuclear inheritance and the interaction of genetic and environmental factors in common human diseases. At the same time, the concept of pharmacogenomics and its role in personalised therapy is introduced.

Specifically, upon completion of the course students will be able to know:

- The mechanisms of heredity.
- The mechanisms of creation of gene mutations and DNA repair.
- The concepts of genotype and phenotype
- The rationale of common monogenic diseases.
- The role of genetic predisposition and environmental factors in multifactorial diseases.
- The basic laboratory techniques of Molecular Genetics.
- The applications in clinical practice of personalized pharmacogenetics.

COURSE CONTENT

- Introduction to the science of genetics. Applications of Genetics.
- The genetic material. Chromosomal and extra-nuclear inheritance. Replication of DNA.
- Gene mutations and DNA repair.
- Monogenic diseases.
- Endogenous metabolic diseases and preventive neonatal screening.
- Genetic predisposition and body weight.
- Diabetes mellitus.
- Cardiovascular diseases.
- Non-alcoholic fatty liver disease.
- Inflammatory bowel diseases.
- Cancer.
- Allergies and genetic predisposition.
- Laboratory techniques of Molecular Genetics.
- Pharmacogenomics and personalized treatment

RECOMMENDED-BIBLIOGRAPHY

1. George Dedousis. Molecular Genetics of Man. Utopia Publications. Year Current. Edition 2021. Book code on Eurodex: 102075373.
2. Jocelyn E. Krebs, Elliott S. Goldstein, Stephen T. Kilpatrick, Lewin's Genes XII. Utopia Publications. Year Current. Edition 2021. Book Code on Eurodex: 94674819.
3. Jorde L.B., Carey J.C., Bamshad M.J. Medical Genetics. Publisher Broken Hill Publishers LTD. Year Current. Brobrooke Hill, Inc. Book Code on Eudox: 112691110.
4. Nussbaum R., McInnes R.R., Willard H.F. Thompson and Thompson Medical Genetics. Publisher Broken Hill Publishers LTD. Year Current. 2011. Book Code on Eudox: 13256587
5. Klug, Cummings, Spencer, Palladino. Basic principles of genetics. I. Basdra & Spencer; Spencer Ltd. 2019 edition. Book ID in Eudox: 94644420.

Related Scientific Journals

- Nature Reviews Genetics (<https://www.nature.com/nrg/>).
- Nature Genetics (<https://www.nature.com/ng/>).
- Nucleic Acids Research (<https://academic.oup.com/nar>).
- Genome Medicine (<https://genomemedicine.biomedcentral.com/>).
- American Journal of Human Genetics (<https://www.cell.com/ajhg/home>).
- Human Molecular Genetics (<https://academic.oup.com/hmg>)

TEACHING	Lectures 3 hours/week	4 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is to provide the student with the basic and necessary knowledge of nursing. Students will become familiar with the methods of clinical evaluation and treatment of diseases.

At the end of the course, the student will have understood:

- Diagnostic algorithms and diagnostic tests, differential diagnosis, and treatment of individual diseases
- Symptoms and signs of various pathological diseases
- The data that contribute to the planning of nursing care for the pathological patient
- The provision of care for pathological diseases in order to be able to propose a patient and disease-oriented care plan
- Issues related to research, evidence-based (nursing) practice and improving the quality of nursing care.

COURSE CONTENT

1. Introduction to clinical assessment of the patient. Disease, symptom, physical sign, diagnosis, diagnostic algorithm.
2. Taking patient history, Symptom characteristics.
3. Clinical examination methods by system. Physical signs per system.
4. Gastrointestinal System (1): main symptoms and signs, paraclinical examinations. Diseases of the esophagus.
5. Gastrointestinal System (2): stomach diseases (peptic ulcer - gastritis, stomach cancer).
6. Gastrointestinal System (3): digestive bleeding. Malabsorption syndrome. Diarrhea. Constipation. Gastroenteritis. Idiopathic Inflammatory bowel disease. Colon cancer.
7. Liver and biliary diseases. Jaundice. Hepatitis. Cirrhosis. Portal hypertension. Ascitic effusion. Biliary diseases (cholelithiasis, cholecystitis).
8. Pancreatic diseases (acute and chronic pancreatitis, pancreatic cancer).
9. Respiratory diseases (1). Functional respiratory control. Paraclinical examinations. Chest radiography. Clinical manifestations of respiratory diseases. Upper respiratory tract infections. Pneumonia. Chronic obstructive pulmonary disease. Bronchial asthma. Bronchiectasis. Cystic fibrosis.
10. Respiratory diseases (2): pulmonary embolism. Pleural effusion. Lung cancer. Pneumothorax.
11. Respiratory diseases (3): pulmonary fibrosis. Sarcoidosis. Eosinophilic lung diseases. Obstructive sleep apnea syndrome. Tuberculosis.

12. Diseases of the hematopoietic system (1): hematopoietic organs. Blood cells. Red blood cell disorders (anemia, polycythemia). White cell disorders (leukemia, lymphoma).

13. Hematopoietic diseases (2): thrombocyte disorders. Coagulation disorders. Diffuse intravascular coagulation. Hemophilia. Thrombophilia. Lymphadenopathy-Splenomegaly. Immunodeficiencies. Allergic reactions. Bone marrow transplantation. Blood groups. Transfusions.

RECOMMENDED-BIBLIOGRAPHY

1. Ivor, Griggs, Wing, Fetz. Cecil Basic Pathology. BROKEN HILL PUBLISHERS
2. Ashar, Miller, Sisson. Pathology, The Johns Hopkins, Constantaras Publications.

TEACHING Lectures 2 hours/week 2 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The aim of the course is for students to understand the basic surgical conditions with emphasis on preoperative, intraoperative, and postoperative care of the surgical patient. The clinical presentation, diagnostic approach, treatment (with emphasis on newer methods) of surgical diseases and the specifics of care, depending on the type of surgery, will be presented, and analyzed. The student will become familiar with the daily activities in a surgical clinic as well as the equipment of an operating room (e.g. surgical instruments).

At the end of the course, the student will have understood:

1. the symptoms and signs of surgical diseases
2. the diagnostic methods of surgical diseases
3. the surgical methods of treatment
4. the complications of surgery
5. preoperative, perioperative and postoperative care

COURSE CONTENT

1. Introduction to surgery
2. Elements of physiology and pathophysiology - Trauma and healing - systemic response to trauma
3. Acute abdomen
4. Stomach diseases - 12 fingers - esophagus - small intestine - large intestine
5. Liver-biliary-pancreas diseases
6. Breast diseases
7. Cardiothoracic surgical diseases
8. Surgical infections
9. Elements of surgical oncology
10. Analgesic treatment of postoperative pain
11. Thyroid gland diseases
12. Elements of anesthesiology
13. Thromboprophylaxis - Fluid and electrolyte disorders in a surgical patient

RECOMMENDED-BIBLIOGRAPHY

- Current Modern Surgical Diagnosis and Treatment 3rd edition, Doherty Gerard. Broken Hill Publishers
- Surgical pathology, Bonatsos Gerasimos, Golematis Vasilios. Broken Hill Publishers

TEACHING	Lectures 4 hours/week	5 ECTS
	Clinical Practice 4 hours/week	5 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The course objective is to provide theoretical and clinical knowledge, which will help students to understand the importance of nursing care of patients with acute and chronic pathological diseases. The course aims to enable the student, as a pathology nurse manager, to understand the concepts of health and its deviations related to pathological problems and to apply them in the planning, provision of nursing care and evaluation of its outcomes.

At the end of the course, students should:

1. Possess the appropriate theoretical knowledge concerning pathological problems of endocrine glands, hematopoietic tissue, digestive and respiratory systems, metabolic diseases and allergic syndromes.
2. Be able to understand the importance of early nursing diagnosis, prevention and relief of symptoms of pathological diseases,
3. Be familiar with the comprehensive assessment of the patient by utilizing sources of information from the patient and his/her environment.
4. Be able to assess comorbidity and the specific needs arising from it.
5. Be able to plan integrated care by defining problems and purposes of nursing care.
6. Be able to provide and evaluate the outcomes of nursing care and to educate patients and their families.
7. Be able to select the most appropriate techniques and methods for each case and interpret reactions for timely treatment.

COURSE CONTENT

The themes of the course are developed around the following axes and relate to both the theoretical and laboratory parts:

- ✓ Holistic approach to the pathological patient, personal hygiene, pain care, assessment of electrolyte imbalances, infection control and prevention. Nursing assessment, evaluation and diagnosis, and planning of nursing care, monitoring, and evaluation of outcomes.
- ✓ Hematopoietic tissue. Basic theoretical knowledge concerning the anatomy, physiology, and pathology of the morphological elements of blood (red, white, platelets) and plasma. Assessment of the patient with hematological problems. Design of a nursing care program. Nursing interventions and evaluation of their results.
- ✓ Respiratory, digestive system, metabolic diseases. Basic theoretical knowledge of anatomy, physiology and pathology of diseases related to pathological nursing

respectively (respiratory and digestive). Patient assessment, care planning, nursing interventions and evaluation of outcomes of care provided.

- ✓ Autoimmune diseases, allergic syndromes, infectious diseases. Knowledge of pathology and the latest views and theories. Patient assessment, care planning, nursing interventions and evaluation of care provided.
- ✓ Preparing the patient for discharge from hospital and educating the patient and family. Interface and continuity of nursing care.

RECOMMENDED BIBLIOGRAPHY

- Dewit S.C. (2009) Pathological surgical nursing. Volume 1. Broken Hill Publishers Ltd.
- Lemone P., Burke K., Bauldoff G. (2013) Pathology-Surgical Nursing. Critical thinking in patient care. Volume A. D. Lagos Publications, Athens, Greece.
- Osborn K.S., Wraa C.E., Watson A. (2011) Pathological Surgical Nursing. Volume 1. Broken Hill Publishers Ltd.

TEACHING	Lectures 4 hours/week	6 ECTS
	Clinical Laboratory 4 hours/week	4 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

1. To equip the student with the knowledge and skills to be able to provide comprehensive pre-operative, post-operative and post-operative nursing care to the patient.
2. To enable the student to develop skills, to understand specific terms, to apply appropriate methods and tools for the provision of nursing care in the surgical area of nursing institutions.

At the end of the course, students should:

- Know the process by which the complete destruction of living micro-organisms in all their forms is achieved. Differences between sterilization, antisepsis, and asepsis
- Be familiar with the principles of the organization and operation of the operating theatre and be familiar with the basic equipment of the operating theatre.
- Plan and implement pre-operative nursing care
- Apply intraoperative nursing care
- Apply post-operative nursing care
- Recognize post-operative complications
- Recognize the vital organ changes that occur in the elderly and are related to the outcome of surgery and nursing peculiarities.
- Assess the nutritional status of the patient to be operated on
- Recognize surgical stress and the wound healing process
- Have the theoretical knowledge of water-electrolytic disorders
- Know the difference between burn trauma and burn disease.

COURSE CONTENT

The themes of the course are developed around the following axes and relate to both the theoretical and the laboratory part:

THEORETICAL PART

- History of surgical nursing
- The surgical patient. Perioperative management of the patient: preoperative phase - history taking/clinical assessment of the surgical patient.
- Assessment of the nutritional status of the patient to be operated on
- Intraoperative care - Organization and administration of the operating theatre, The nursing role in the operating theatre and during the administration of anesthesia. Operating room equipment, Surgical team.

Categories of surgical procedures.

- Preoperative antisepsis of the intraoperative team. Role of the instrumentalist and coordinator during surgery. Accident prevention measures in the operating room.
- Postoperative care - education of the operated patient.
- Postoperative difficulties and postoperative complications
- Surgical infections.
- Clinical Nutrition of a Surgical Patient
- Acute pain. Nursing management of a surgical patient with pain, palliative care.
- Nursing care of surgical trauma, ulcers - dressings - drains. Surgical stress and wound healing.
- Liquids and Electrolytes: Fluid and electrolyte balance. Regulation of body fluid balance. Fluid and electrolyte balance disorders.
- Acid-base balance. Clinical manifestations of deviations. Nursing Interventions.

CLINICAL PRACTICE

- The students' clinical training takes place: in surgical departments of various specialties and they participate in the preoperative and postoperative procedure and monitoring of the patient. In the operating rooms. In the outpatient clinic. In the emergency department.

RECOMMENDED BIBLIOGRAPHY

- Osborn K.S., Wraa C.E., Watson A. (2011) Pathological Surgical Nursing. Volume 1. Broken Hill Publishers Ltd.
- Dewit S.C. (2009) Pathological surgical nursing. Volume 1. Broken Hill Publishers Ltd.
- Lemone P., Burke K., Bauldoff G. (2013) Pathological-Surgical Nursing Critical thinking in patient care. Volume A. D. Lagos Publications, Athens, Greece.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is to familiarize students with the general principles of pharmacokinetics and pharmacodynamics and the principles of prescribing. They will be taught the basic principles of pharmacological treatment of the main diseases and become familiar with the main indications, contraindications, and side effects of drugs.

Upon successful completion of the course, students will be able to:

- know the knowledge of medication necessary for nursing care
- understand the medicinal properties, actions and side effects of each medicine
- become familiar with the interactions between medicines, indications and contraindications
- inform inpatients about the mechanisms of their action and administration,
- combine and understand their observations with relevant information and knowledge to provide effective medication.

COURSE CONTENT

The themes of the course are developed around the following axes:

1. General Principles of Pharmacology - Pharmacokinetics - Pharmacodynamics
2. Adverse reactions - Drug interactions
3. Medicines in special population groups (geriatric patients, children, pregnant and breastfeeding women, patients with chronic kidney or liver disease)
4. Principles of prescription - Principles of administration of medicines; routes of administration of medicines
5. General principles of pharmacotherapy of infections
6. Medicines for diseases of the endocrine system - Antidiabetic medicines
7. Introduction to the Autonomic Nervous System
8. Cholinergic drugs- Anticholinergic drugs- Ganglion- Myotropic drugs
9. Sympathomimetic drugs - Sympatholytic drugs
10. Circulatory - Heart - Anticoagulants - Antiplatelet - Antiplatelet
11. Hematopoietic drugs- Respiratory drugs
12. Anti-allergic -antihistamine Medicines
13. Medicines for gastrointestinal diseases
14. Analgesic drugs - anti-inflammatory drugs
15. Psychopharmacology - Antipsychotic drugs - Antidepressant drugs - Sedative- Anxiolytic-Hypnotic drugs
16. Medicines for diseases of the nervous system (Antiparkinsonian - Medicines for neurodegenerative diseases)

17. Chemotherapeutic drugs - cancer immunotherapy

RECOMMENDED BIBLIOGRAPHY

- Simonsen Kay, Nursing Pharmacology Broken Hill Publications 2009
- R. A. Harvey, K. Whalen, R. Finkel, Th. A. Panavelil ed. 2015, Pharmacology Paris Publications

HEALTH SOCIOLOGY

ΠΠΝ316

TEACHING Lectures 2 hours/week 2 ECTS

TYPE OF COURSE Optional

LEARNING OUTCOMES

The aim of the course is the acquisition of knowledge and familiarity with the basic concepts and principles of the sociological approach for a deeper understanding of issues related to health.

The course has the following objectives:

- to introduce students to theories and concepts that will enable them to understand health and illness in social and cultural terms,
- to develop critical thinking and reflection through the study of sources that will enable an understanding of the impact of the social environment on the development of health and disease,
- to understand the position and identity of nursing in health services, through the presentation and analysis of social studies,
- to show that the concepts of health, illness, the body and healing have different meanings in different societies.

After the end of the course the student will be able to:

- Understand the theories and concepts that will enable the analysis of health and illness in social and cultural terms,
- Have knowledge of the main sociological theories and approaches and their relation to the nursing profession,
- Distinguish the social factors that influence health and illness, and appreciate the role of health stakeholders,
- Work with fellow students to present material/study in class.

COURSE CONTENT

The topics of the course include the following:

- Introduction to the theory of the sociology of health and illness,
- Sociological approach to health and illness,
- Relationship between nursing and the social view of health and illness,
- The experience of illness, social and cultural interpretation

RECOMMENDED-BIBLIOGRAPHY

- Porter S. (2010) Sociology for health professionals. Broken Hill Publishers Ltd.
- Bergeron H., Castel P. (2018) Political sociology of health. Psychogios A & SIA Ltd.
- Pitsios Th.K. (2003) Evolutionary anthropology: findings and basic concepts of contemporary anthropological research. Broken Hill Publishers Ltd.

COMMUNICATION SKILLS & COUNSELLING

ΠΠΝ317

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The purpose of this course is to help students develop personal and professional communication skills, as well as to utilize the principles and techniques of counseling for the therapeutic approach to the individual and his/her family. To acquire counselling skills aimed at exploring, understanding, and renegotiating the feelings of individuals or groups of individuals.

After the end of the course, students will be able to:

- To know the concepts and purpose of Counselling Psychology.
- Describe the main theoretical approaches of Counselling Psychology.
- Describe the process of communication and identify the factors that influence it.
- Understand and describe ways of non-verbal communication.
- Use effective communication techniques.
- Describe communication barriers in the clinical setting.
- Understand the principles of active listening. State the skills that can promote the development of a therapeutic relationship with patients.
- Analyze empathy.
- Describe ways to develop effective professional relationships with patients as well as with nurses and other members of the health care team.
- Describe how the communication process is hindered using ineffective communication techniques.
- Establish therapeutic relationships with people in their care and describe effective interventions for people with verbal communication disorders.

COURSE CONTENT

- The themes of the course are developed around the following axes:
- Definition of communication. Models and theories of communication.
- Principles and methods of Nursing Counseling
- Basic principles of communication. Description of the communication process.
- Process-Communication phases.
- Forms of communication. Verbal and non-verbal forms of communication.
- Communication skills.
- Factors affecting communication.
- Basic communication skills with people in vulnerable groups.
- Cross-cultural specificities in nursing.
- Principles of active listening, respect, and empathy.
- Barriers to Communication. Conditions for effective communication.

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- Communication in the Nursing Process. Communication skills at first contact and identification of patient and family needs and problems by the nurse.
- Use of communication in the therapeutic nurse-patient relationship. Stages of therapeutic relationship.
- Effective communication techniques - Dialogue and listening skills, Interviewing techniques, Interpersonal and dynamic behavior skills.
- Communication in groups. Group purposes and roles.
- Concept and purpose of Counselling Psychology.
- Main theoretical approaches of Counselling Psychology.
- The Consultative relationship and the consultative process.
- Methodology for applying counselling skills to the individual and the group. Applications of Counselling Psychology.
- Counselling Psychology in the family and in the parent-child relationship.
- Counselling Psychology in Health Care.
- Prevention of burnout.

RECOMMENDED-BIBLIOGRAPHY

- Freshwater D. (2011) Consultative Nursing. Broken Hill Publishers Ltd.
- DiCenso A., Guyatt G., Ciliska D. (2015) Evidence-based nursing. Broken Hill Publ. Ltd.
- Malikiosi-Loisouizou M. (2011) Counselling Psychology. K.Th. Bampalis Publications.
- Sapountzi-Krepia D. (2006) Theory and Practice of Counselling and Psychotherapy. C. Parikos.

SKIN CARE

ΠΠΝ318

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	
LEARNING OUTCOMES		

Course objective:

Students will become familiar with the main dermatological diseases, the main skin lesions, the most common and most important rashes, and the dermatological manifestations of systemic diseases.

The course is an introductory study in the prevention and treatment of skin-related problems in the context of the nursing approach.

The syllabus of the course aims to acquire evidence-based knowledge of care techniques for the maintenance of health and prevention of skin problems.

Upon completion of the course students will be able to:

- To acquire basic knowledge of the description of the clinical picture of dermatopathies and skin diseases.
- Recognize patients at risk of developing skin problems and know the techniques and materials for their prevention and treatment.
- Recognize patients at risk of developing chronic skin diseases and identify ways, techniques, and materials for their prevention and treatment.
- Evaluate chronic skin ulcers.
- Assess patients with skin conditions, recognize the problems and know the appropriate nursing measures for their treatment.
- Educate patients in self-care procedures and their caregivers in home care procedures.

COURSE CONTENT

- The themes of the course are developed around the following axes:
- Introduction to Dermatology - Nursing history of a dermatological patient - Examination of a dermatological patient
- Complications of skin diseases
- Erythematolepidic dermatoses
- Pompholygous diseases
- Skin manifestations of autoimmune diseases
- Trichomoniasis diseases
- Contact dermatitis - hypersensitivity reactions
- Medicinal rashes
- Skin infections

RECOMMENDED BIBLIOGRAPHY

- Andrew's Skin Diseases, Epitome William James, Timothy Berger, Dirk Elston Broken Hill Publishers, 2011

4th SEMESTER

INTERNAL MEDICINE II

ΠΠΝ411

TEACHING Lectures 3 hours/week 4 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The aim of the course is to provide the student with the basic and necessary knowledge of nursing. Students will become familiar with the methods of clinical evaluation and treatment of diseases.

At the end of the course, the student will have understood:

- Diagnostic algorithms and diagnostic tests, differential diagnosis, and treatment of individual diseases
- Symptoms and signs of various pathological diseases
- The data that contribute to the planning of nursing care for the pathological patient
- To provide care for pathological diseases in order to be able to propose a patient and disease-oriented care plan
- Issues related to research, evidence-based (nursing) practice and improving the quality of nursing care.

COURSE CONTENT

1. Endocrine gland diseases (1). Elements of endocrine system physiology. Clinical and laboratory evaluation of the endocrine system. Structure and action of hormones. Syndromes of hypo- and pro- pituitary function.
2. Endocrine gland diseases (2): diabetes mellitus. Diabetes mellitus.
3. Endocrine gland diseases (3): disorders of the reproductive system. Diseases of the adrenal glands. Cushing's syndrome, Addison's syndrome. Osteoporosis.
4. Autoimmune (rheumatological) diseases (1). Elements of immune system physiology. Autoantibodies. Systemic lupus erythematosus.
5. Autoimmune (rheumatological) diseases (2): rheumatoid arthritis. Rheumatoid arthritis. Vasculitis. Gout. Osteoarthritis. Scleroderma. Myositis.
6. Diseases of the circulatory system (1). Clinical examination and paraclinical tests. Electrocardiogram. Main symptoms and signs.
7. Diseases of the circulatory system (2). Congenital heart disease. Valvular diseases. Endocarditis. Pericarditis. Myocarditis. Arrhythmias. Coronary syndromes. Myocardial infarction. Arterial Hypertension. Heart failure.
8. Nervous system diseases (1). Symptoms and signs. Coma. Headache. Migraine. Dizziness, vertigo. Vascular stroke.
9. Nervous system diseases (2). Epileptic seizures. Central nervous system infections (meningitis, encephalitis). Parkinson's disease. Encephalopathy. Demyelinating diseases. Multiple sclerosis.

Neuromuscular diseases.

10. Infectious diseases (1): staphylococcal and streptococcal infections. Viral infections. Zoonoses. HIV infection (acquired immunodeficiency syndrome) . Sexually transmitted diseases. Parasites.

11. Infectious diseases (2): infections in immunocompromised persons. Hospital-acquired infections. Prevention of transmission of infections. Travelers' diseases.

12. Urinary tract diseases (1). Main symptoms and signs. Evaluation of general urine. Upper and lower urinary tract infections (urethritis, cystitis, prostatitis, pyelonephritis). Glomerulonephritis.

13. Urinary tract diseases (2): urinary disorders. Nephrolithiasis. Nephrotic syndrome. Acute and chronic renal failure. Artificial kidney; exonerative dialysis. Kidney transplantation.

RECOMMENDED BIBLIOGRAPHY

1. Ivor, Griggs, Wing, Fetz. Cecil Basic Pathology. BROKEN HILL PUBLISHERS
2. Braunwald. Color Atlas of Internal Medicine. BROKEN HILL PUBLISHERS

TEACHING	Lectures 4 hours/week	4,5 ECTS
	Clinical Practice 4 hours/week	4,5 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

The course aims to enable students to:

1. Plan, provide and evaluate nursing care for patients with health deviations related to: circulatory, urinary, musculoskeletal, sensory and major infectious diseases. Emphasis is placed on the active participation and contribution of nurses in the therapeutic health care team.
2. Understand, as responsible nurses in the pathology sector, the concepts of health and its deviations related to infections in pathological problems in the hospital setting and to apply them in the planning, provision of nursing care and the evaluation of its results.

At the end of the course students will have to:

1. Assess the health status of people with diseases related to the circulatory, urinary,
2. musculoskeletal and sensory systems.
3. Provide individualized and holistic care with modern models and working systems (Nursing Process etc.) to the above patients.
4. Develop critical scientific thinking skills in differential diagnosis, prevention, and management of complications in collaboration with the health care team.
5. Design education and information programs for patients with body image changes and contribute to their rehabilitation on discharge from hospital.
6. Have the appropriate theoretical knowledge concerning the pathogenesis of infections, specific ways of recording and monitoring hospital-acquired infections and measures for their prevention.
7. Be familiar with the comprehensive assessment of the patient by utilizing sources of information from the patient, family, and the hospital environment.
8. Plan integrated care by defining problems and nursing care goals in areas related to infections.
9. Provide and evaluate the results of the nursing care provided.
10. Plan and prepare the patient's discharge from the hospital and provide for the education of the patient and the family. Interface and continuity of nursing care.

COURSE CONTENT

The themes of the course are developed around the following axes and relate to both the theoretical and laboratory parts:

- ✓ In basic theoretical knowledge concerning anatomy, physiology, pathology, and pathology and pathological nursing of the heart and blood vessels, urinary, musculoskeletal, and sensory organs.

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- ✓ Diagnostic tests and the corresponding nursing interventions.
- ✓ In the problems of patients, the design, implementation, and evaluation of nursing intervention programs respectively.
- ✓ In the development of specific right-handedness in nursing interventions.
- ✓ Hospital-acquired infections, definition, epidemiology, etiology, risk factors, treatment, and preventive measures. Hospital-acquired infections respiratory, urinary, central intravenous catheter, sepsis, specific infections.
- ✓ Basic theoretical knowledge of the pathology of infections relevant to the pathology field.
- ✓ Patient assessment, care planning, nursing interventions and evaluation of outcomes of care provided.
- ✓ Preparing the patient for discharge from hospital and educating the patient and family.
- ✓ Interface and continuity of nursing care.

RECOMMENDED BIBLIOGRAPHY

- Dewit S.C. (2009) Pathological surgical nursing. Volume 2. Broken Hill Publ. Ltd.
- Lemone P., Burke K., Bauldoff G. (2013) Pathology-Surgical Nursing. Critical thinking in patient care. Volume B. D. Lagos Publications, Athens, Greece.
- Osborn K.S., Wraa C.E., Watson A. (2012) Pathological Surgical Nursing. Volume 2. Broken Hill Publishers Ltd.
- Ignatavicius D.D., Workman L.M. (2008). Pathological-Surgical Nursing. Volume 1. BETA Medical Publications MEPE.

SURGICAL NURSING II

ΠΠΝ413

TEACHING	Lectures 4 hours/week	4 ECTS
	Clinical practice 4 hours/week	4 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

1. To enable the student to identify the needs and problems of patients in the surgical field.
2. Plan and provide patient-family teaching and comprehensive nursing care to patients with surgical problems by actively participating in the health care team.

At the end of the course students will be able to know:

- Review of Surgical Nursing I. Conceptual Definitions
- Nursing care of a patient with surgical diseases of the stomach - duodenum
- Nursing Care of Patients with surgical diseases of the lower digestive tract (colorectal cancer)
- Nursing care of patients with surgical diseases of the liver - pancreas - gallbladder
- Nursing Care of Patients with Renal Surgical Diseases
- Nursing care of patients with surgical diseases of the urinary tract
- Nursing Care of a Patient with Musculoskeletal Trauma. Nursing Care of Patient in Musculoskeletal Surgery
- Nursing care of patients after orthopedic surgery
- Nursing Care of a Patient with Chest Injuries
- Nursing Care of a Patient with Traumatic Brain Injury
- Nursing care of patients with burns
- Nursing Care of the Cardiac Surgery Patient
- Nursing Care of a Patient with Spinal Cord Injuries
- Mass casualty surgical nursing

COURSE CONTENT

The themes of the course are developed around the following axes and relate to both theoretical and clinical practice:

THEORETICAL PART

- Nursing care of a patient with surgical diseases of the stomach - duodenum
- Nursing Care of Patients with surgical diseases of the lower digestive tract (colorectal cancer)

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Nursing care of patients with surgical diseases of the liver - pancreas - gallbladder.
- Nursing Care of Patients with Renal Surgical Diseases
- Nursing Care of Patients with Surgical Diseases of the Urinary Tract
- Nursing Care of a Patient with Musculoskeletal Trauma. Nursing Care of Patient in Musculoskeletal Surgery.
- Nursing care of patients after orthopedic surgery
- Nursing Care of a Patient with Chest Injuries
- Nursing Care of a Patient with Traumatic Brain Injury
- Nursing care of patients with burns
- Nursing Care of the Cardiac Surgery Patient.
- Nursing Care of a Patient with Spinal Cord Injuries.
- Mass casualty surgical nursing.

CLINICAL EXERCISE

The clinical training of students is carried out:

- In surgical departments of various specialties and participate in the preoperative and postoperative procedure and monitoring of the patient. In the operating rooms.
- In the outpatient clinic
- In the emergency department.

RECOMMENDED BIBLIOGRAPHY

- Osborn K.S., Wraa C.E., Watson A. (2011) Pathological Surgical Nursing. Volume 1. Broken Hill Publishers Ltd.
- Dewit S.C. (2009) Pathological surgical nursing. Volume 1. Broken Hill Publishers Ltd.
- Lemone P., Burke K., Bauldoff G. (2013) Pathological-Surgical Nursing Critical thinking in patient care. Volume A. D. Lagos Publications, Athens, Greece.

TEACHING	Lectures 2 hours/week	1 ECTS
	Laboratory practice 2 hours/week	1 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The use of Information Technology in the field of Health provides several important benefits, which are relate to better patient service and the facilitation of medical and nursing staff.

The course aims to introduce students to basic concepts related to the nature of medical information, and the modern requirements for more efficient management (storage, safeguarding, retrieval, processing) of medical data and medical knowledge, the optimal use of health data for better health care delivery, cost reduction, better education of nursing staff and citizens on health issues and more efficient research.

Upon successful completion of the course, students will have developed the appropriate theoretical and practical background to be able to understand:

- the nature of Medical Information,
- the problems arising in the electronic management of medical information,
- the role of medical term coding and classification systems and the applications of the medical term coding and classification systems SNOMED-CT, ICD, MeSH, UMLS,
- DICOM, HL7, ICD-10 protocols,
- the concept of information system, the operation of basic hospital information
- subsystems, the term integrated hospital information system, interoperability between information subsystems,
- the advantages and applications of databases in medical information management,
- the requirements, benefits, and problems in the standardized implementation of electronic health records,
- the contribution of computer systems to medical imaging,
- the experienced decision support systems in the health sector.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Definitions, basic concepts of Health Informatics, Historical development of Informatics
- ✓ Data and information in the health sector
- ✓ Digital Clinical Data. Data from Imaging Systems and Biological Signals.
- ✓ Databases and Modern Database Systems.
- ✓ Electronic Patient File
- ✓ Hospital information systems
- ✓ Clinical information systems
- ✓ Laboratory Information Systems
- ✓ Medical Data Security

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- ✓ The standards: Digital Imaging and Communications in Medicine (DICOM), HL7, ICD-10
- ✓ Electronic health card
- ✓ Mobile health applications (mobile health)
 - ✓ Computers in Medical Imaging. Digital image quality. Digital image processing
 - ✓ Experienced health care decision support systems.
 - ✓ Artificial intelligence in health. Machine learning. Neural networks, genetic algorithms

RECOMMENDED-BIBLIOGRAPHY

- Mantas J., Hasman A., Health Informatics-Nursing Approach, Athens 2007, Broken Hill Publishers Ltd, ISBN 9789603995104.
- Poulis Giannos, Meimeti Evangelia, Informatics in Health - Modern Applications, 2017, Konstantaras Publications, ISBN 9789606080005.
- Kapopoulos Dimitris, The Contribution of Informatics in Health, 2021, Diavlos S.A. Book Publications, ISBN 978-960-531-475-0.
- Lazakidou Athina, Advanced Systems and Information Technology Services in Health Care, Athens, 2019, Disigma Publications, ISBN 978-960-9495-71-4.
- Karanikolas Nikitas, Informatics and Health Professions, 2010, New Technologies Publications, ISBN 978-960-6759-57-4.
- Botsi Taxiarchis, Stelios Halkiotis, Health Informatics - The application of Informatics in the field of Health, Athens, 2005, Diavlos S.A. Book Publications, ISBN 978-960-531-183-4.
- Apostolakis I., Varlamis H, Health Information Systems - Electronic Health Services, Athens, 2020, Papazisis Publications, ISBN 978-960-02-3586-9.
- Venot Alain, Burgun Anita, Quantin Catherine, Informatics in Medicine-eHealth-Basic Principles and Applications, 2019, BROKEN HILL PUBLISHERS LTD, ISBN 9789925575534.
- Nikiforidis Georgios, Medical Informatics, 2009, Litsa Medical Publications, ISBN 978-960-372- 127-7.
- Angelidis Pantelis, Medical Informatics Volume A., Thessaloniki, 2011, "Sophia" Anonymi Ekdotiki & Commercial Company, ISBN 978-960-6706-43-1.
- Angelidis Pantelis, e-Health, 2016, Greek Academic Electronic Textbooks and Aids – "Kallipos" Repository, ISBN 978-960-603-497-8.

DIAGNOSTIC NURSING

ΠΠΝ415/ΠΝΕΞ216

TEACHING	Lectures 2 hours/week	2,5 ECTS
	Laboratory 2 hours/week	2,5 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

To provide students with the scientific knowledge to acquire the critical scientific thinking skills to recognize and evaluate the symptoms, clinical signs and behaviors of people who are hospitalized or visit health care facilities.

At the end of the course, students should be able to:

1. Understand how information is collected and recorded from the patient and his/her environment.
2. Apply the clinical examination in the assessment of the patient's condition.
3. Evaluate clinical findings and proceed with individualized nursing care.
4. Understand the principles that underpin, interpret and document nursing applications' and
5. Develop basic skills for providing nursing care in various health or illness situations.
6. Recognize the risk of the situation and take appropriate actions to prevent and treat adverse conditions, helping to reduce morbidity, mortality, morbidity and mortality and reduce health economic costs.

COURSE CONTENT

The themes of the theoretical part of the course are developed around the following axes:

1. Review of physical examination and history taking.
2. The interview with the patient and family.
3. Assessment of the patient's cultural and spiritual background.
4. General overview and vital signs.
5. Nursing Evaluation by system: Cover System.
6. Nursing Evaluation by system: Head and Neck, Eyes, Ears,
7. Nose, Mouth and Throat.
8. Nursing Evaluation by system: Respiratory System.
9. Nursing Evaluation by system: Cardiovascular System.
10. Nursing Evaluation by system: Musculoskeletal System.
11. Nursing Evaluation by system: Gastrointestinal System.
12. Nursing Evaluation by system: Urinary System.
13. Assessment of mental status.

The themes of the laboratory part of the course are developed around the the following axes:

1. Critical Thinking in Nursing Care
2. Nursing Care Systems. Designing an Individualized Nursing Care Plan.
3. Nursing Diagnosis: definition, characteristics, factors Use of Diagnostic Terminology
4. Diagnostic Categories Diagnostic Categories Typological Framework of Functional Health Standards Nursing diagnoses based on Diagnostic Standards
5. Assessment Guidelines Based on the Operational Health Standards - Nursing Assessment of Adults
6. Nursing assessment and organization of nursing care of a patient with respiratory system manifestations
7. Nursing assessment and organization of nursing care of a patient with cardiovascular events
(Case Study)
8. Nursing assessment and organization of nursing care of a patient with musculoskeletal system manifestations (Case Study)
9. Nursing assessment and organization of nursing care of a patient with gastrointestinal manifestations (Case Study)
10. Nursing assessment and organization of nursing care of a patient with manifestations of the urinary system (Case Study)
11. Nursing assessment and organization of nursing care of a patient with altered mental status (Case Study)

RECOMMENDED BIBLIOGRAPHY

- Kourkouta L. I. (2011) Diagnostic Nursing Approach. Broken Hill Publishers Ltd.
- Gordon M. Handbook of Nursing Diagnostics. BETA Medical Publications.
- Seidel H., Ball J., Dains J., Benedict G. (2011) Broken Hill Publishers Ltd.
- Collective work. Edited by Karagiannis A., Doumas M., Tziomalos K. (2017) Clinical examination and diagnosis. University Studio Press.
- Hogan-Quigley B., Palm M., Bickle L. (2018) Bates' Nursing Guide to Clinical Examination and History Taking. I. Constantaras Publications.
- Bickley L. (2014) Bates' Nursing Guide to Clinical Examination and History Taking. K & B Bates. N. Litsas Ltd.
- Swartz M. (2011) Clinical diagnosis, history and physical examination. Publications Lagos D., Athens.

Journals:

- Journal of clinical nursing <https://onlinelibrary.wiley.com/journal/13652702>
- Nursing Outlook <https://www.sciencedirect.com/journal/nursing-outlook>
- International Journal of Nursing Knowledge
<https://onlinelibrary.wiley.com/journal/20473095>

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to introduce imaging examinations and the imaging techniques that govern them, as one of the most important diagnostic tools in modern medicine. They are used by all medical specialties as a means for the accurate and safe diagnosis of various diseases.

Also, the main purpose of the course is to introduce students to the basic principles and ways of Radiation Protection from the use of ionizing radiation for diagnostic purposes in medicine.

SUBJECT AREA: IMAGING TECHNIQUES

At the end of the lectures, the student will be able to:

- Describe the basic parts of an X-ray machine and how X-rays are produced
- Explain the functional parameters of a radiological examination (kV, mA, sec)
- Name the basic radiation protection measures when performing an X-ray
- Understand the principle of operation of the CT scanner (C/T)
- Describe the methods involved in the creation of C/T images, know the anatomical areas of CT imaging and the variety of examinations performed
- Describe the basic parts of a CT computing system
- Describe the basic principles of MRI and its advantages over other imaging techniques
- Understand the phenomenon of nuclear magnetic resonance
- Know the clinical applications and the variety of tests performed with MRI
- Describe how the ultrasonic wave is produced and detected
- Understand how medical images are produced using ultrasound
- Understand the Doppler effect and its use in ultrasound diagnosis
- Describe the principles of operation and clinical usefulness of the mammograph
- Know basic concepts for the preparation of radiopharmaceuticals
- Describe the principle of operation of the g-camera and the usefulness of classical Nuclear
- Medicine in clinical practice.
- Understand the basic mechanism of scintigraphy image formation and its qualitative characteristics.
- Know general radiation protection elements of the personnel working in nuclear medicine laboratories, the patient and his/her family members.
- Describe the principle of operation of Positron Emission Tomography (PET).
- Know about the clinical applications of PET in Oncology, Neurology and Cardiology.
- Know the differences between molecular (PET) and anatomical imaging (CT, MRI, ultrasound, conventional radiology).

- Know the technological evolution of PET (hybrid scanners - PET/CT, hybrid g-camera- SPECT/CT, micro-PET).
- Understand the usefulness and how to apply endoscopic methods (colonoscopy, gastroscopy, laparoscopy, endoscopic reverse cholangiopancreatography (ERCP), cystoscopy, laryngoscopy)

THEMATIC UNIT: RADIATION PROTECTION

In the context of the course students will focus on:

- The use of ionizing radiation for diagnostic purposes in medicine
- The basic principles of the interaction of radiation with matter
Ionizing radiation and the production of free radicals
- Cell damage from ionizing radiation
- In the regulations on radiation protection from ionizing radiation in medical applications
- Practical ways of radiation protection of patients and staff when using ionizing radiation for diagnostic purposes in medicine
- The ways of radiation protection of sensitive population groups such as children and pregnant women

The minimum measures to be taken in the event of emergencies caused by radiological/nuclear

Accidents

COURSE CONTENT

IMAGING TECHNIQUES - PRINCIPLES OF RADIATION PROTECTION

The course covers the basic concepts of imaging techniques, describes the imaging systems for the diagnosis of various diseases and analyses the basic principles of radiation protection. More specifically, the course covers the following modules:

- Interaction of radiation with matter
- Dosimetry data and biological effects of ionizing radiation
- Basic principles of radiation protection
- Diagnostic applications of ionizing radiation in radiology
- Computed tomography
- Magnetic resonance imaging
- Ultrasounds - mammography
- Endoscopic methods
- Principles of Nuclear Medicine (scintigraphy, positron emission tomography)
- Radiation Protection of Personnel and Patients in Interventional Radiology
- Radiation protection of children and pregnant women
- Radiation protection in screening mammography, Computed Tomography (CT) and Positron Emission Tomography (PET)
- Radiation Protection of Personnel and Patients in Nuclear Medicine
- European Radiation Protection Directives

LABORATORY PART

- Visit to a CT and MRI Unit, in the Mammography and Ultrasound Department.
- Visit to a Nuclear Medicine Laboratory
- Visit to Radiotherapy Department

RECOMMENDED BIBLIOGRAPHY

- Kappas K & Theodorou K, Radiation and Radiation Protection, Volumes A and B, Broken Hill Eds, 2017
- Georgiou E. (2003) Medical Physics: Diagnostic and therapeutic applications of radiation. Diagnostic and diagnostic techniques, diagnostic and therapeutic applications, medical and medical imaging.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

Course objective:

The aim of the course is to enable students to educate the public on the prevention, early diagnosis and early symptoms of cancer and to provide comprehensive nursing care to people affected by cancer and their families. Also, to provide comprehensive supportive care covering physical, psychosocial and spiritual changes across the entire spectrum of the disease, from diagnosis to any outcome of the disease.

At the end of the course, students should be able to:

1. Work effectively in health education to prevent cancer.
2. Assess the needs of people with cancer, plan and deliver quality care and effectively assist in the rehabilitation of patients with cancer.
3. Provide supportive and palliative care to patients with oncological diseases and their families by meeting their physical, psychosocial, and spiritual needs.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Definition of cancer-methods of staging.
- ✓ The role of nurses in primary and secondary cancer prevention.
- ✓ Nursing care of patients undergoing chemotherapy. Side effects, toxicity and nursing responsibility.
- ✓ Nursing care of patients undergoing radiotherapy. Side effects and nursing responsibility.
- ✓ Nursing care of patients undergoing hormone therapy and immunotherapy. Complementary therapies and cancer.
- ✓ The nursing management of cancer pain and the most common symptoms. New trends and approaches in Clinical Oncology and Oncology Nursing in terms of:
 - ✓ the nature of cancer,
 - ✓ the epidemiology and etiology of malignant neoplasms,
 - ✓ the histobiology and prevention of malignant neoplasms,
 - ✓ the diagnosis and staging of tumors.
- ✓ Principles of surgical oncology, radiation oncology, pathological oncology and nursing oncology.

RECOMMENDED BIBLIOGRAPHY

- Tsouskas L. (2014) Clinical Oncology. Principles of oncology nursing care. University Studio Press SA.
- Corner J. Bailey C. (2006) Nursing Oncology. Broken Hill Publishers Ltd.
- Lavdanitis M.I. (2017) Oncology Nursing. BETA Medical Publications. Subscribe to DeepL Pro to edit this document.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

Course objective:

Students' understanding of the two-way relationship between Work and Health. To study and analyze (identify, measure, evaluate) the physical, chemical, biological and ergonomic factors affecting the health of workers. The identification of occupational hazards that may cause injury to workers. Understanding how to practically implement and adopt safety systems. To understand how to design an effective occupational safety policy to protect, prevent and control risks.

At the end of the course, students will be expected to:

1. Design an effective policy, working in a multidisciplinary environment, for the protection and prevention of risks arising from the working environment.
2. Understand how to implement and adopt safety systems in the workplace in good practice.
3. Be aware of their future role in the labor market as Occupational Health Services staff in order to maintain and promote the physical, mental and psychological health of workers.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Introduction, concept, and content of Occupational Hygiene.
- ✓ Legislation on health and safety at work.
- ✓ Impact of Work on Health and Health at Work.
- ✓ General knowledge of Industrial Toxicology.
- ✓ Chemical hazards and target organs in the human body.
- ✓ Physical hazards (Noise and Vibration; Thermal Environment; Lighting; Radiation).
- ✓ Biological hazards.
- ✓ Principles of Ergonomics of Work.
- ✓ Occupational risk assessment. Occupational Hygiene management and policy in the company.
- ✓ Work safety. Personal protective equipment (PPE). Site marking. Illuminated signs and sign boards.
- ✓ Organization of first aid in the workplace.
- ✓

RECOMMENDED BIBLIOGRAPHY

- Alexopoulos E., Zimalis E. (2011) Occupational and Environmental Medicine. Broken Hill Publishers Ltd.
- Linou A. (2005) Occupational Medicine. BETA Medical Publications MEPE.
- Velonakis E., Surtzi P. (2009) Health and Work. BETA Medical Publications MEPE.

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- Adamopoulou M.G. (2010) Occupational Safety and Health in biomedical laboratories. Broken Hill Publishers Ltd.
- Karakasidis N.G., Theodoratos P.H. (2010) Occupational Health and Safety and Environmental Protection. S. Parikou, S. Parikou Publications. ΣΙΑ ΟΕ.
- Aw T.C., Gardiner K, Harrington J.M. (2011) Occupational Health Handbook. Parisianou Publications S.A., Athens, Greece.

5TH SEMESTER

MICROBIOLOGY - INFECTION CONTROL NURSINGΠΠΝ511/ΠΝΕΞ112

TEACHING	Lectures 3 hours/week	3 ECTS
	Clinical practice 3 hours/week	3 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is to understand the basic principles of microbiology as well as the pathogenesis and epidemiology of infections.

Upon completion of the course students will be able to know:

- The concept of the microbiome and the interaction between the microorganism and the host
- The characteristics and properties of pathogenic microorganisms that contribute to the pathogenesis of infectious diseases
- The factors that influence the occurrence of infection and the onset of disease.
- The types of infections prevalent in healthcare settings and their causative factors
- The modes of transmission of healthcare-associated infections and the contribution of control and prevention measures to reducing their incidence
- The importance of strategies and policies for good antimicrobial stewardship in fighting infections and reducing antimicrobial resistance.

COURSE CONTENT

The themes of the course are developed around the following axes and relate to both the theoretical and the laboratory part:

- Basic principles of Microbiology.
- Prokaryotic and eukaryotic organisms. Viruses, Viroids and Prions.
- Interaction of the microbe with the host.
- Mechanisms of pathogenicity of microbes.
- Natural immunity-non-specific host defense.
- Acquired immunity-Special defense of the host.
- Microorganisms and infections.
- Hospital-acquired infections. Infection control programs - The institution of the infection control nurse.
- Measures to control and prevent transmission of infections in healthcare facilities – Hand hygiene - Insulation measures and types of precautions (basic, contact, droplet, airborne).
- Clothing management. Disinfection in the hospital area.
- Waste Management of Health Care Units.
- Taking and transporting samples to the laboratory. The contribution of laboratory methods to infection control.
- Bloodstream infections associated with the use of central line catheters, nosocomial pneumonia, urinary tract infections, surgical site infections.
- Antimicrobial resistance and antibiotic consumption in the hospital. Impact and response policies

RECOMMENDED BIBLIOGRAPHY

1. Tortora Gerard, Funke Berdell, Case Christine. Introduction to Microbiology 2nd edition. Publisher Broken Hill Publishers LTD. Year Current. Brobroken Hill, Inc. Book Code in Eudox: 68373275.
2. Stefan Riedel. Jawetz, Melnick & Adelbergs Medical Microbiology. Publisher Ioannis Konstantaras. Year Current. Edition 2022. Book code in Eudox: 112696168.
3. Goering R.V., Dockrell H.M., Zuckerman M., Chiodini P.L. Mim's Medical Microbiology and Immunology 2nd edition. Publisher Broken Hill Publishers LTD. Year Current. Edition 2024. Book Code in Eudox: 112691760.
4. Barer M.R., Irving W., Swann A., Perera N. Medical Microbiology - Guide to Microbial Infections, Pathogenesis, Immunity, Interpretation of Laboratory Examinations and Tests 19th English/ 2nd Greek edition. Publisher Broken Hill Publishers LTD. Year Current. Brobroken Hill, Broken Hill Ltd. Book Code on Eudox: 112690926.
5. Benett L., Hospital-acquired infections. Book Code in Eudox: 13256480
6. Eleni Apostolopoulou, Health Care Associated Infections, Publisher: Kostakis Athan., Year current. Edition date: 2016, Book code in EUDOXUS: 102124487

E book:

Centre for Disease Control and Prevention Scientific Committee on Hospital Acquired Infections. Guidelines for the Diagnosis and Empirical Treatment of Infections. HELLENIC SOCIETY OF INFECTIONS, 2007. Infections_Book.pdf.

Related Scientific Journals

- The Lancet Infectious Diseases (<https://www.thelancet.com/journals/laninf/home>).
- Nature Microbiology (<https://www.nature.com/nmicrobiol/>).
- Clinical Infectious Diseases (<https://academic.oup.com/cid>).
- Cell Host and Microbe (<https://www.cell.com/cell-host-microbe/home>).
- mBio (<https://journals.asm.org/journal/mbio>).
- Antimicrobial Agents and Chemotherapy (<https://journals.asm.org/journal/aac>).
- Emerging Infectious Diseases (<https://wwwnc.cdc.gov/eid/>)
- Frontiers in Microbiology (<https://www.frontiersin.org/journals/microbiology>).
- American Journal of Infection Control
<https://www.ajicjournal.org/>
- International Journal of Epidemiology
<https://academic.oup.com/ije?login=false>
- The Journal of Infectious Diseases <https://academic.oup.com/jid?login=false>
- Journal of Hospital Infection <https://www.journalofhospitalinfection.com/>
- Journal of Infection Prevention <https://journals.sagepub.com/home/bji>

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- Journal of Prevention and Infection Control
<https://www.primescholars.com/prevention-and-infection-control.html>
- International Journal of Infection Control <https://www.ijic.info/>
- Infection Prevention in Practice
<https://www.sciencedirect.com/journal/infection-prevention-in-practice>

Websites

- NATIONAL PUBLIC HEALTH AGENCY - <https://eody.gov.gr>
- European Centre for Disease Prevention and Control ECDC- <https://ecdc.europa>
- Centers for Disease Control and Prevention CDC- <https://www.cdc.gov>

FIRST AID - EMERGENCY NURSING

ΠΠΝ512/ΠΝΕΞ115

TEACHING	Lectures 3 hours/week	5 ECTS
	Laboratory 2 hours/week	
	Clinical practice 3 hours/week	6 ECTS
TYPE OF COURSE	Compulsory	
LEARNING OUTCOMES		

The aim of the course is for nurses to receive specialized knowledge on issues of Emergency Medicine and Nursing in order to become fully competent in dealing with sudden and life-threatening situations. As an integral member of the healthcare team, the nurse must have knowledge and skills that will ensure both the harmonious functioning of the team and the provision of quality care to the critically ill patient. Emergency nursing is an ever-changing field, where clinical experience and up-to-date knowledge are the two important poles on which the modern nurse must move. Through the emergency nursing course, the student will gain both clinical experience by participating in the work of the emergency department under the supervision of experienced instructors and upgraded knowledge through high level lectures. Each course will provide a brief review of pathophysiology, physical examination, diagnostic analyses, collaborative management, nursing diagnoses and interventions, as well as information regarding further patient management specific to each condition or treatment strategy.

Upon successful completion of the course, it will enable students to:

1. Become familiar with the organization of the emergency department as a place for crisis management, screening and reception of patients, initiation of inpatient care, as well as forwarding of patients to other departments,
2. Describe and understand common emergency situations and the importance of the first critical hours, evaluate information about the health status of patients and develop critical thinking in clinical diagnostics and therapeutics,
3. Provide timely and personalized nursing care to patients in accordance with the needs arising from the main underlying health problem and co-existing diseases,
4. Develop skills of collaboration, coordination, and active participation in the interdisciplinary therapeutic team of staff.

COURSE CONTENT

1ST WEEK

Triage of patients in the ICU - Early warning scores - Per systems approach to the patient with life-threatening conditions

The student should obtain all necessary knowledge about screening scales, the ABCDE patient approach and burden indicators.

2ND WEEK

Basic and specialized cardiopulmonary resuscitation

In this module, the student will gain knowledge about the recent guidelines for the management of outpatient and inpatient cardiac arrest and foreign body drowning.

3RD WEEK

Emergency respiratory disorders

The student should obtain knowledge about the pathophysiology, clinical picture, symptoms, diagnostic tests, and nursing interventions of the following respiratory disorders: asthma exacerbation, COPD, pneumonia, influenza, tuberculosis, ARDS, acute respiratory failure, pulmonary embolism, pneumothorax, hemoptysis.

They should also acquire sufficient knowledge of ventilation devices and the processes involved in mechanical ventilatory support.

4TH WEEK

Emergency cardiovascular disorders

The student should obtain knowledge about the pathophysiology, clinical picture, symptoms, diagnostic tests and nursing interventions of the following cardiovascular disorders: life-threatening arrhythmias, acute coronary syndromes, heart failure - acute cardiogenic pulmonary edema, acute pericarditis - cardiac tamponade, aortic aneurysm - dissection

He/she should also acquire sufficient knowledge about hemodynamic monitoring devices.

5TH WEEK

Urgent neurological problems

The student should obtain knowledge about the pathophysiology, clinical picture, symptoms, diagnostic tests, and nursing interventions of the following neurological disorders: seizures, meningitis, stroke, cerebral aneurysm and subarachnoid hemorrhage.

The student should also be able to assess the patient's level of consciousness and be aware of the factors that cause disturbances in the level of consciousness.

6TH WEEK

Emergency psychiatric conditions

In this module, the student will gain knowledge about the management of patients with suicidal behavior, anxiety disorders, panic, acute psychosis.

7TH WEEK

Urgent endocrine problems

In this module, the student will gain knowledge about the pathophysiology, clinical picture, symptoms, diagnostic tests, and nursing interventions of the following endocrine disorders: diabetic ketoacidosis, hyperglycemic osmotic non-ketotic syndrome, hypoglycemia, acute adrenal insufficiency, thyrotoxic crisis, myxoid coma.

8TH WEEK

Urgent problems from the digestive system

In this module, the nurse will gain knowledge about the pathophysiology, history, risk factors, clinical presentation, and nursing care of gastrointestinal disorders, with

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emphasis on the following disorders: acute gastrointestinal bleeding, peptic ulcer, gastroenteritis, cholecystitis, pancreatitis, ileus.

9TH WEEK

Trauma I

The student should gain knowledge of the initial management of the multi-trauma patient and the assessment and management of the following: head injuries, chest trauma, abdominal trauma, acute spinal cord injury.

10TH WEEK

Trauma II

The student should gain knowledge of the initial management of the multi-trauma patient and the assessment and management of the following: sprain, dislocation, wound dressing, fracture immobilization. There will also be reference to methods of transporting the injured.

11TH WEEK

Cataplexy - Reactions to medications and blood transfusion

In this module, the student should gain knowledge about the diagnosis, differential diagnosis and treatment of various forms of cataplexy as well as reactions to drugs and blood transfusions.

12TH WEEK

Acid-base balance - Electrolyte disorders

In this module, the student will receive basic knowledge about the pathophysiology, assessment, diagnostic tests and nursing interventions in fluid and electrolyte disorders and acid-base balance disorders.

13TH WEEK

Damage from environmental impact - mass disasters

The student should obtain knowledge about the clinical picture, symptoms, diagnostic tests, and nursing interventions of the following disorders: heatstroke, hypothermia, burns, anaphylaxis, drowning, poisoning, hangings and strokes, mass disasters.

LAB

- Defibrillation - Synchronized cardioversion
- Basic life support
- Resuscitation position
- Recognition of electrocardiographic rhythms
- Specialized life support
- Screening of patients

- Airway management - Ventilation - Foreign body drowning
- Blood gas uptake - Acid-base balance
- Interactive case presentations

CLINICAL EXERCISE

- Circular exercise of all students in:
- Pathology departments of the ICU
- Surgical departments of the ICU
- Sorting
- Resuscitation Unit

RECOMMENDED BIBLIOGRAPHY

- Emergency Nursing, Ch.Marvaki, A. Kotanidou, D. Papageorgiou, A.Kalogianni. ISBN: 9789606802843, Eudox Code: 50659450
- Emergency Nursing Core Curriculum 7e, Sweet V. Broken Hill Publishers LTD. ISBN: 9789925576937, Benefit Code: 94646090

Related scientific journals:

- International Emergency Nursing
- Journal of Emergency Nursing
- Journal of trauma nursing: the official journal of the Society of Trauma Nurses
- Advanced Emergency Nursing Journal
- Nursing
- Emergency nurse: the journal of the RCN Accident and Emergency Nursing Association

TEACHING	Lectures 2 hours/week	3 ECTS
	Clinical practice 2 hours/week	1 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

To enable students to understand the physiology and problems of the female reproductive system, as well as the physiology and pathology of pregnancy.

Upon completion of the course students will be able to:

- know the role of the nurse in maternity and women’s health
- know all the requirements for having a healthy child
- know the function of the female reproductive system and the diseases of this system as well as the physiology and pathology of pregnancy and childbirth,
- plan and implement appropriate nursing interventions in cases of diseases of the female genital system, pregnancy, and childbirth,
- be aware and acquire skills to provide comprehensive care to pregnant women, adolescents and lechonas, as well as women with gynecological conditions.

COURSE CONTENT

- Reproductive system - Conception and perinatal development
- Physiological adaptations during pregnancy.
- Complications during pregnancy
- Co-existing disorders during pregnancy
- Process of childbirth
- Dystocia during normal and caesarean section
- Nursing care during obstetric procedures
- Assessment of the condition of the fetus during delivery
- Newborn nursing care
- Physiological changes after childbirth
- Complications during the postpartum period
- Fertility and infertility management
- Health care of the woman
- Breast cancer, diagnostic approach and treatment

RECOMMENDED BIBLIOGRAPHY

1. Maternity Nursing-Gynaecological Health Care Book Code in EU DOXUS: 94643693. Edition: 1/2020 Authors: McKinney Slone Emily, James Rowen Susan, Murray Smith Sharon, Nelson Ann Kristine, Ashwill Weiler Jean ISBN: 9789925576180 Type. Publisher: BROKEN HILL PUBLISHERS LTD
2. “Maternity Nursing Book Code in EU DOXUS: 12867169. Edition: eighth/2011. Authors: Lowdermilk, Perry, Cashion ISBN: 978-960-7875-67-9 Type: textbook Publisher: LAGOS DIMITRIOΣ”
3. Obstetrics and Gynaecology, Book Code in EU DOXUS: 68404468 Publisher.
4. Oxford. Handbook of gynaecological nursing care Book code in Eudoxo: 13256217 Edition: 1sted./2011 Authors: Gupta S., Holloway D., Kubba A. ISBN: 9789604890354 Type: Textbook Publisher: BROKEN HILL PUBLISHER”

PALLIATIVE CARE - CHRONIC PAIN MANAGEMENT**ΠΠΝ514**

TEACHING	Lectures 3 hours/week	3 ECTS
	Tutorial practice 1 hour/week	1 ECTS

TYPE OF COURSE Compulsory**LEARNING OUTCOMES**

The aim of the course is to provide the student with the basic and necessary knowledge to be able to provide comprehensive and scientifically documented care in the final stage of life. The student will become familiar with methods of chronic pain relief. In addition, the student will be trained to develop interdisciplinary collaboration between the physician, nurse, patient, and the patient's family to be able to assess and respond to the organic and psychosocial-spiritual needs of end-stage patients.

COURSE CONTENT

1. History of the International Palliative Care Movement
2. Care protocols. Challenges for trainees.
3. Skills of nurses for the provision of Palliative Care
4. Chronic pain-nursing assessment of a patient with chronic pain syndrome
5. Types of chronic pain
6. Specific objectives of analgesic care
7. Palliative care of patients with malignancies
8. Palliative care of patients with non-malignant diseases
9. Nursing care and communication with the terminal patient and his/her family. Assessment of psychosocial and spiritual needs.
10. Nursing and ethical dilemmas in end-stage patient care - Making difficult decisions
11. Paediatric nursing care of patients at the end of life
12. Nursing comfort interventions at the patient' bedside. Priorities of care in the last days of life.
13. Grief and bereavement in palliative care - Carer support

RECOMMENDED-BIBLIOGRAPHY

1. Fundamental dimensions of Palliative Care in Nursing. Evidence-based knowledge and practice for trainees Robert Becker Edited by. Stylianos Katsaragakis Publisher: BrokenHill Publishers LTD, 2018.
2. Anaesthetic Nursing:Ensuring hope and quality of life Shaun Kihghorn,Richard Gamlin Edited by Eleni Theodossopoulou-Eythymiou. Eleni Helene Khorghifa and Eleni Helene Khorghifa, 2004.

TEACHING	Lectures 3 hours/week	2 ECTS
	Tutorial 1 hour/week	1 ECTS
TYPE OF COURSE	Compulsory	
LEARNING OUTCOMES		

The aim of the course is for students to understand the fundamental concepts of statistical methodology and the application of biostatistics as a tool for the analysis and processing of data (characteristics, variables) in the field of health sciences.

In particular, at the end of the course, the student will be able to:

1. Fully understand the basic principles and concepts of biostatistics.
2. Conduct descriptive statistical analysis of quantitative and qualitative data by selecting appropriate statistical tools.
3. Interpret the results of the descriptive analysis.
4. Conduct inferential statistical analysis on a data set by selecting appropriate statistical tests.
5. Interpret the results of the inductive analysis.
6. Have critical thinking in applied health sciences research.

COURSE CONTENT

1. Basic concepts: measurement scales and types of variables
2. Statistical data analysis: descriptive and inferential / univariate, bivariate, multivariate
3. Descriptive analysis: frequency distribution tables
4. Descriptive analysis: graphs and frequency curves
5. Descriptive analysis: statistical descriptive measures
6. Normal distribution and normality test
7. Induction analysis: point and space estimation
8. Inductive analysis: hypothesis testing and p-value
9. Bivariate analysis: parametric tests
10. Bivariate analysis: non-parametric tests (series)
11. Bivariate analysis: non-parametric tests (χ^2)

RECOMMENDED BIBLIOGRAPHY

- Triola M.M., Triola F.M., Roy J. (2021) Biostatistics in the Biological and Health Sciences. Broken Hill Publishers, Nicosia.
- Papageorgiou E. (2019) Probability - Biostatistics and Applications with SPSS. New Technologies Publishing House, Athens, Greece.

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Sachlas A., Bersimis S. (2017) Applied Statistics Using IBM SPSS Statistics 23: With an Emphasis on Health Sciences. IBM SPSS SPSS Statistics, SPSS Statistics in Health Sciences. Tziola, Thessaloniki.
- Zafeiropoulos K., Mylonas N. (2017) Statistics with SPSS. Contains Probability Theory. Published by Tziola, Thessaloniki.
- Galanis P. (2015) Data Analysis Methodology in Health Sciences. Application with IBM SPSS Statistics. Broken Hill Publishers, Nicosia.
- Chalikias M., Manolessou A., Lalou P. (2015) Research Methodology and Introduction to Statistical Data Analysis with IBM SPSS STATISTICS. Association of Greek Academic Libraries, www.kallipos.gr.
- Arvanitidou-Vayonas M., Haidits A.M. (2013) Medical Statistics. Basic Principles. University Studio Press, Thessaloniki, Greece.
- Bowers D. (2011) Fundamental concepts in biostatistics. Introduction for Health Professionals. Broken Hill Publishers, Nicosia.
- Dafermos V. (2011) Social statistics & Research Methodology with SPSS. Ziti, Thessaloniki, Greece.
- Trichopoulos D., Tzonou A., Katsouyannis K. (2002) Biostatistics. Ed. Parisianos, Athens, Greece.
- Pagano M., Gauvreau K. (2000) Principles of biostatistics. Ed. Hellen, Athens.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

Course objective:

The development of methods of reaching people through intercultural care. The analysis of different theoretical approaches to intercultural care. To develop competencies in students in order to cultivate knowledge intended for local and ethnic cultural groups. To shape students' perceptions of the application of Basic Nursing Care to different cultural groups.

At the end of the course, students should be able to :

1. Approach the whole range of issues involved in teaching caring for people from different cultural groups, races and ethnicities.
2. Analyse different alternative approaches that include intercultural nursing care.
3. Suggest and discuss different strategies that can help the teacher in the classroom and the nurse in practice.
4. Offer additional sources of information and stimuli to address dilemmas arising from the diversity of individuals.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Introduction to the concept of culture
- ✓ Culture in the context of nursing
- ✓ The concepts of Health, Culture and Care in different religions
- ✓ Theory and models of intercultural nursing and health
- ✓ Models for the development of cultural competence
- ✓ Migrants' health, health and welfare services
- ✓ Ethical dilemmas arising from the diversity of cultures in nursing practice

RECOMMENDED-BIBLIOGRAPHY

- Papadopoulos I., Kalokairinou A., Kouta H. (2011) Intercultural Nursing and Cultural Competence for Health Professionals. Broken Hill Publishers Ltd.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to introduce students to the field of Management and Organization of Health Services. Students will be equipped with knowledge about the contemporary management of the health care sector and will understand their role and their dynamic relationship as professionals within this system.

At the end of the course, students will be able to:

1. Understand the institutional and policy framework of health services administration and human resource management
2. Define the purpose and content of the management of a health care organization
3. Recognize the distinct role and specificities in the management and organization of the Nursing Service
4. Know the theories of organization and management in modern health care systems in Greece and internationally and to understand good practices
5. Define the characteristics of the interdisciplinary work culture that govern the hospital organizations
6. Describe and analyze management models and how they are used in the nursing environment
7. Know the framework and rules of evaluation and target setting in the health system
8. Apply their administrative knowledge effectively at all levels of the health system administration.

COURSE CONTENT

- ✓ Introduction to the concepts of public health, health policies, health promotion and the mapping of the health system over time
- ✓ Health needs, health inequalities and meeting needs through the National Health System
- ✓ Social Protection and the Welfare State. The influence of the theoretical schools on the Greek Health System
- ✓ Modern principles of health services management. Management and Leadership
- ✓ Structure of the health system and its services. Distinct roles and synergies
- ✓ Public and private health care systems. Convergences and divergences
- ✓ Preparing health systems for today's challenges
- ✓ Nursing Administration. Challenges and Difficulties
- ✓ Quality in health services. The framework of clinical governance and the involvement of professionals and users
- ✓ Staffing and evaluation of the Nursing Service through objectives
- ✓ Leadership, motivation, communication, staff development, conflict management
- ✓ Continuing education and research in nursing administration
- ✓ Digital transformation in health and its participation in the modern management system

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- ✓ Ethical deadlocks, personal data, dilemmas and management of special situations in health systems
- ✓ New Technologies in Health Services and their participation in health policy making

RECOMMENDED BIBLIOGRAPHY

- Health Services-Systems and Policies. Eudoxo Book Code: 94643644. Edition: 1/2020 Authors:Multigraphic, Editing Sarafis Pavlos. ISBN: 9789925575305 Type: 9789925575305 Type: Sygogram Publisher:BROKEN HILL PUBLISHERS LTD, Athens 2020
- Marquis B., Huston C. (2010) Management and leadership. Theory and application to nursing services. D. Lagos Publications, Athens, Greece.
- Swansburg R.C., Swansburg R.J. (2010) Nursing Administration and Leadership. Broken Hill Publishers Ltd.
- Mercouris A.V. (2008) Nursing services management. C. G. Parikos & LTD.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to provide students with the necessary knowledge about the role of the nurse in the provision of rehabilitation to chronic patients and patients with acute illnesses requiring rehabilitation.

Students will become familiar with providing holistic and individualized care to chronic patients and understand their pathophysiological and psychosocial parameters.

Upon successful completion of the course, students will have understood the necessary theoretical and clinical knowledge for the rehabilitation of the chronically ill, such as:

- understand the key concepts and definitions of chronic diseases, disability and functioning,
- are familiar with the particularities of hospitalisation of the chronically ill and the premises and equipment of rehabilitation centres
- implement appropriate interventions that contribute to enhancing the functional capacity of the chronically ill
- provide psychological support to patients undergoing rehabilitation
- provide appropriate training for carers of the chronically ill to cope with:

- a. Acute neuromotor damage,
- b. Anoxic-ischemic encephalopathy,
- c. Brain and spinal cord surgery,
- d. Craniocerebral or spinal cord injuries,
- e. Acute diffuse encephalomyelitis,
- f. CNS infection with neuromotor problems,
- g. Acute myelitis/myelopathy,
- h. Acute polyneuropathy (Guillain Barré, toxic polyneuropathies from any cause),
- i. Relapse of multiple sclerosis or chronic inflammatory polyneuropathy during the onset of recent neurological deficits treated with corticosteroids causing inability to stand and walk in patients who were ambulatory even with support prior to the recent relapse,
- j. Myopathies-myopathies of all causes,
- k. Multi-injured patients with inability to stand and walk,
- l. Patients with pelvic ring instability and patients with two limb fractures with
- m. inability to stand and walk,
- n. Girdlestone arthroplasty,
- o. Major orthopedic surgery with proven inability to stand and walk, as certified by the attending physician who performed the surgery, after the average length of stay in the hospital of the hospital selected for the hospitalization.
- p. Arthroplasty revision, periprosthetic fractures,
- q. Amputations of the upper and/or lower limbs.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Definition of rehabilitation - chronic disease - disability
- ✓ Basic principles of rehabilitation - quality of life indicators
- ✓ Patient counselling and education
- ✓ Assessment of the needs of patients in need of rehabilitation, scales and assessment tests for chronic patients
- ✓ Nursing care and rehabilitation of respiratory patients
- ✓ Nursing care and rehabilitation of cardiovascular patients
- ✓ Nursing care and rehabilitation of patients with metabolic disorders
- ✓ Nursing care and rehabilitation of chronic kidney patients
- ✓ Nursing care and rehabilitation of patients with musculoskeletal diseases
- ✓ Nursing care and rehabilitation of patients with spinal injuries
- ✓ Nursing care and rehabilitation of patients with neurological diseases (stroke, neurodegenerative diseases, neurodegenerative diseases)
- ✓ Nursing care and rehabilitation of patients with chronic liver and gastrointestinal diseases
- ✓ Nursing care and rehabilitation of patients with malignancies

RECOMMENDED BIBLIOGRAPHY

- Advancing Practice in Rehabilitation Nursing Rebecca Jester Publisher: Broken Hill Publishers LTD Athens 2017.

TELEMATICS SERVICES IN HEALTH**ΠΠΝ519**

TEACHING	Lectures 2 hours/week	1 ECTS
	Laboratory exercises 2 hours/week	1 ECTS

TYPE OF COURSE Optional

LEARNING OUTCOMES

The use of Information Technology and the Internet in health care is now undeniable. The aim of the course is to enable students to use the modern applications of Information Technology in the field of Health at a distance through networks.

Upon successful completion of the course, students will have developed the appropriate theoretical and practical background to be able to understand:

- the concepts of Computer Networks, Local Area Networks, Wide Area Networks
- the concepts of internet and Internet, World Wide Web. Internet addresses.
- the organization of an internal network,
- the organization of the Internet,
- the concept of Telematics in Health,
- web-based systems in health care,
- Clinical Process Support - Telemedicine.
- Sharing Nursing Data between Geographically Remote Nursing Centers.
- the new role of the Internet as a key infrastructure for the development of integrated eHealth services.

COURSE CONTENT

- History of the Internet. Internet penetration in society and health care
- Computer networks and information transfer: Passive and active elements of networks - Structured
- Cabling - Optical fibre - Repeaters - Switches - Routers - Servers.
- Principles of networks, internet
- Structure of the Internet
- Interconnection of hospitals, health centers
- Introduction to telematic services
- Electronic / Telematic services
- Electronic circulation of information
- Servers (servers)
- World Wide Web: characteristics of the World Wide Web, size, development. Hypertext, (web server),
- hypertext presentation program, resource addressing system. Navigation on the World Wide Web.
- PubMed database and tools to support PubMed searches.
- Google Scholar scientific literature search engine and scientific digital libraries
- File transfer.

RECOMMENDED-BIBLIOGRAPHY

- Gortzis Eleftherios, Medical Informatics Services & Telemedicine, 2013, Disigma Publications, ISBN 978-960-9495-31-8
- Pompidou Alain, Apostolakis Ioannis A., Ferrer - Roca Olga, Sosa - Iudicissa Marcelo, Allaert Francois, Della Mea Vincenzo, Kastania Anastasia N., Handbook of Telemedicine, 2009, Papazisis Publications, ISBN 978-960-02-2295-1
- Papadogiannis D., Perdikouri M., Yovas P., Telemedicine in Practice, 2005, En Plo Publications, ISBN:9789608806380
- Konstantinos Xarchakos, Manolis Markatselas, Learn Joomla 3.x easily, 2014, Avakas Publications, ISBN 978-960-99070-6-4
- Xarchakos Konstantinos I., Learn WordPress 5.x easily, 2020, Avakas Publications, ISBN 978-960-6789-28-1

TEACHING	Lectures 3 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The aim of the course is to familiarize students with the contemporary social and economic reality of business and to develop the corresponding skills of creativity, communication, and leadership. It is the basis for building the ability to identify business opportunities in everyday life, to focus on social needs and to create value based on their knowledge and their creative and critical ability. Emphasis is placed more on the dynamic concepts of creativity and innovation, analysis and analysis of problematic situations and synthesis of solutions, entrepreneurship, rather than on narrow business management. A critical element of this approach is the understanding of entrepreneurship and innovation as collective, interactive, socio-economic processes. Starting from an analysis of contemporary reality, the ability to explore and synthesize radical, realistic solutions to contemporary problems is developed.

COURSE CONTENT

The course focuses on issues relating to:

- entrepreneurship and business
- analysis of social needs and trends
- exploring business opportunities: the need, the problem, the solution, the solution, the value creation
- creative thinking methods
- the role of innovation in the creation of the business venture
- intangible industrial property
- resource collection
- developing business ideas,
- development of business partnerships
- business models.

Students learn by applying the method in the process from the search and conception of the business idea to its evaluation, its change and its presentation to potential partners and/or investors.

During the course, in addition to the lectures:

- case studies are used which are the subject of presentation and discussion during the lectures
- students visit businesses related to their fields of study and interests,
- lectures are given by businesspeople,
- meetings are organized with mentors from the local business community

Students develop business plans in teams of 4-7 members, with the guidance and support of the support team or members of the business community.

- The lectures and other activities of the course are supported by laboratory sessions, through which each group is given the opportunity to discuss their work and seek solutions to any problems they encounter or specialist knowledge about specific aspects of their work.

RECOMMENDED-BIBLIOGRAPHY

1. Entrepreneurship, Edition 2020, Book Code in EUDOXUS: 94645251, Authors.
2. Entrepreneurship and Small Business, Version 2 η , 2017, Book Code in EUDOXUS: 59397350, Authors: David Deakins, Mark Freel
3. Development of Business Models, Edition 2017, Eudox Book Code: 68373077, Authors.

RESPIRATORY AND CARDIAC HEALTH CAREΠΠΝ611/ΠΝΕΞ215

TEACHING	Lectures 3 hours/week	4 ECTS
	Laboratory 2 hours/week	3 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The course aims to familiarize, to acquire theoretical and clinical knowledge, as well as the basic skills for the provision of individualized care to patients suffering from chronic cardiac and/or respiratory diseases. The course material aims to enable students to acquire knowledge of the physiological anatomy, physiology of the heart and respiratory system through interactive seminar lectures and to compare the etiology, pathophysiology, and clinical manifestations of common cardiac and respiratory diseases.

Through their training at the patient's bedside, they will be able to use appropriate techniques to assess the functional health status of patients, detect risk factors and indications for their fuller management, setting diagnostic nursing priorities in order to ultimately provide personalized and evidence-based nursing care. Also, the aim of the course is to understand the side effects of administered medications. Furthermore, students will be able to actively participate in the planning and coordination of interprofessional care, provide appropriate care and teaching patients and their families about chronic disease, while gaining the ability to evaluate the outcome of their nursing practice.

COURSE CONTENT

1. Assessment of patients with cardiac problems (nursing history, clinical examination, paraclinical tests)
2. Electrocardiogram
Continuous haemodynamic monitoring
3. Care of patients with acute coronary syndromes
Care of patients with cardiac arrhythmias
4. Care of patients with cardiogenic shock
Care of patients with heart failure
5. Care of patients with cardiac catheterization - angioplasty
Care of patients with permanent pacemaker-implantable defibrillator
Care of patients with cardiac surgery
Nursing care of heart transplant patients
6. Clinical training at the Cardiology Clinic and the Coronary Care Unit
Diseases of the General Hospital of Larissa (in Groups)
7. Assessment of patients with respiratory problems (nursing history, clinical examination, paraclinical tests)
The mechanics and control of breathing.
Gas exchange-gas arterial blood gases
8. Care of patients with airway diseases (chronic obstructive airway diseases)

lung disease, asthma, bronchiectasis, cystic fibrosis)

9. Care of patients with diseases of the lung parenchyma

10. Care of patients with diseases of the interstitial tissue

11. Care of patients with pleural diseases

12. Care of patients with lung neoplasm

13. Clinical training at the Pulmonology Clinic and the Intensive Care Unit

Care of the General Hospital of Larissa (in Groups)

RECOMMENDED-BIBLIOGRAPHY

- Handbook of cardiac nursing Dimitra B. Akirou, Yannis V. Parisianos Medical Publications,

TEACHING	Lectures 2 hours/week	3 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

Upon completion of the course, students will have acquired the scientific knowledge and clinical skills to provide comprehensive and scientifically based individualized care to the paediatric patient. The aim of the course is to familiarise the student with neonatology, the normal stages of child development and the most common paediatric diseases.

Upon successful completion of the course, the student will have understood

- the most common health problems of the child
- the normal physical, mental and social development of the child and the factors influencing
- and affecting it
- the methods of diagnosis and clinical examination of the child
- pathological conditions from neonatal age to adolescence, nursing interventions and
- methods of treatment
- the particular methods of treatment of pediatric patients.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Admission of the child to the hospital. The role of the nurse. Effects of hospitalization on the child's emotional development
- ✓ Neonatology - neonatal care and assessment. Breastfeeding.
- ✓ Physiological stages of development-assessment of physical and psychosocial development of a child
- ✓ Acute infectious diseases in children - respiratory system
- ✓ Acute infectious diseases in children; gastrointestinal system; skin
- ✓ Chronic infections in children
- ✓ Congenital heart disease
- ✓ Juvenile diabetes mellitus
- ✓ Kidney diseases
- ✓ Malignant diseases in children
- ✓ Child abuse

RECOMMENDED BIBLIOGRAPHY

- Harriet Lane, Handbook of Pediatrics Authors: P. H. Medical Publications. P. P. Paschalides 2005
- Nelson, Basic Pediatrics Authors: Litsa Medical Publications 2009

TEACHING	Lectures 3 hours/week	4 ECTS
	Clinical practice 2 hours/week	3 ECTS
	Laboratory 2 hours/week	2 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

Course objective:

The course aims to enable students to understand the biological, psychological and spiritual needs of both healthy and sick children, as well as the needs of the family, in order to contribute with their interventions to the normal biopsychospiritual and social development of the child.

Upon completion of the course, students will be able to:

- recognize the symptoms, causes, diagnosis, and treatment of basic problems and disorders in children,
- understand and appreciate the biological - psychological needs of the healthy and sick child and his/her family,
- know the normal development of the child,
- identify factors that affect the child's normal development,
- know all the necessary nursing interventions,
- design and implement nursing interventions,
- evaluate the nursing care plan in place,
- be aware of and develop skills to be able to provide comprehensive care to children

COURSE CONTENT

The themes of the course are developed around the following axes and relate to both the theoretical and laboratory parts:

- ✓ Clinical Examination and Emergency Care of the Child
- ✓ Basic Principles and Procedures of Child Nursing Care
- ✓ Medicines and Safety for Infants and Children and Pain Management
- ✓ The Child with Fluid and Electrolyte Disorders
- ✓ The Child with Immunological Disorder
- ✓ The Child with Gastrointestinal Disorder
- ✓ The Child with Uropause Disorder
- ✓ The Child with Respiratory Disorder
- ✓ The Child with Cardiovascular Disorder
- ✓ The Child with Haematological Disorder
- ✓ The Child with Musculoskeletal Disorder
- ✓ The Child with Endocrine or Metabolic Disorder
- ✓ The Child with Neurological Disorder
- ✓ The Child with Chronic or End Stage Disease

RECOMMENDED BIBLIOGRAPHY

- Pediatric Nursing-Fundamental Principles of Child Health Care. Book Code in Eudox: 94643578; Version: 1/2020 Authors: McKinney Slone Emily, James Rowen Susan, Murray Smith Sharon, Nelson Ann Kristine, Ashwill Weiler Jean ISBN: 9789963274666, Publisher: BROKEN HILL PUBLISHERS LTD

TEACHING	Lectures 3 hours/week	3 ECTS
	Clinical practice 2 hours/week	3 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

This course is the core course in the concepts of mental health and mental disorder, the study of psychopathology, human personality and the adaptive capacity of the individual. The course also aims to provide the theoretical knowledge and clinical skills required to provide holistic nursing care to people with mental disorders and either hospitalized or residing in the community.

Upon successful completion of the course the student will be able to:

- Describe the basic concepts of mental health and mental disorder and list the basic theories developed to explain and understand psychiatric disorders.
- Recognise the main psychiatric symptoms.
- Identify the main factors that contribute to the development of mental disorders.
- Provide holistic nursing care to patients with mental disorders by applying the basic principles of the nursing process.
- Develop and implement individualized nursing care plans for persons with mental disorders.
- Develop therapeutic relationships with mental health patients, ensuring a therapeutic environment.
- Apply therapeutic communication and de-escalation techniques.
- Evaluate the suitability and effectiveness of mental health structures.
- Provide appropriate medication following medical advice and apply a variety of psychotherapeutic interventions to empower the mentally ill person.
- Monitor and evaluate the effectiveness of medication in reducing symptoms while identifying possible side effects and symptoms of drug toxicity.
- Work with members of the multidisciplinary health care team.
- Analyse ethical and moral issues related to the care of the mentally ill.

COURSE CONTENT

- ✓ Introduction to the concepts of mental health and mental disorder. Theoretical frameworks of psychiatry and psychiatric nursing. Historical data. The role and skills of the psychiatric nurse.
- ✓ Application of the nursing process to patients with mental disorders. Basic principles and goals of nursing practice. Diagnostic classification systems in psychiatry and mental health nursing.
- ✓ The therapeutic relationship between nurse and patient with mental disorder. The therapeutic environment, therapeutic communication and mental empowerment.
- ✓ Management of patients in psychological crisis. Techniques to de-escalate anger and aggression.

- ✓ Nursing care of patients with anxiety, body dysmorphic and dissociative disorders.
- ✓ Nursing care of patients with psychotic disorders - Schizophrenia.
- ✓ Nursing care of patients with mood disorders and suicidal ideation.
- ✓ Personality disorders and nursing care.
- ✓ Eating disorders and nursing care
- ✓ Disorders due to the use of psychoactive substances - Addiction.
- ✓ Gender identity disorders and sexual dysfunctions - deviations.
- ✓ Psychogeriatric nursing and nursing process of disorders of old age.
- ✓ Child and adolescent mental health nursing. Domestic violence and child abuse.
- ✓ Counselling - Mental Health Liaison.
- ✓ Mental health nursing in the community. The role of the community psychiatric nurse, social psychiatric care.
- ✓ Migration and mental health. The role of the community psychiatric nurse in reaching out to migrants and refugees.
- ✓ Psychopharmacology and psychotherapeutic approaches in the care of the mentally ill.

SUGGESTED BIBLIOGRAPHY:

1. Kookia E., Principles of Psychiatric Nursing - Mental Health Nursing, Broken Hill Publishers LTD, 2018
2. Hogan M.A., Mental Health Nursing, Broken Hill Publishers LTD, 2011
3. Hannigan B., Coffey M., Community Mental Health Nursing, Broken Hill Publishers LTD, 2012
4. Ragia A., Mental Health Nursing, Parisianos Publications, 2009
5. Papageorgiou A., Mental Health and Nursing Science, VITA Publications, 2011

Related Scientific Journals:

1. Perspectives in Psychiatric Care, <https://onlinelibrary.wiley.com/journal/17446163>
2. International Journal of Mental Health Nursing, <https://onlinelibrary.wiley.com/journal/14470349>
3. Journal of Psychiatric and Mental Health Nursing, <https://onlinelibrary.wiley.com/journal/13652850>
4. Issues in Mental Health Nursing, <https://www.tandfonline.com/loi/imhn20>
5. Journal of American Psychiatric Nurses Association, <https://journals.sagepub.com/home/jap>
6. Archives of Psychiatric Nursing, <https://www.journals.elsevier.com/archives-of-psychiatric-nursing>

TEACHING Lectures 3 hours/week 3 ECTS

TYPE OF COURSE Compulsory

LEARNING OUTCOMES

The aim of the course is:

- To provide students with the necessary knowledge to understand the role of nutrition in the prevention and promotion of health, as well as in the outcome of diseases.
- To equip students with knowledge and skills related to meeting the nutritional needs of both the healthy person in all age groups, and the patient.

At the end of the course, students will be able to :

1. Identify the relationship between food, nutrients and the maintenance and promotion of health.
2. Name the nutrients.
3. Describe the process of metabolism and energy production.
4. Identify nutritional needs at different stages of life.
5. Design a diet for the healthy person and for patients with special nutritional dietary needs according to the cultural background of the individual.
6. Identify potential nutritional risks.
7. Know the principles of clinical nutrition therapy (enteral and parenteral feeding)

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Nutrition and diet and their relation to health maintenance and promotion.
- ✓ Nutrients, metabolism and energy production.
- ✓ Energy value of nutrients. Energy balance.
- ✓ Diet planning for the healthy person.
- ✓ Nutrition in pregnancy, breastfeeding, infancy, childhood and adolescence
- ✓ Design of diets in specific pathological conditions.
- ✓ Enteral and parenteral feeding.

RECOMMENDED BIBLIOGRAPHY

- Brown J.E. (2015) Nutrition in the life cycle. Publications Lagos D., Athens.
- Moore M. C. (2000) Dietetics. BETA Medical Publications.
- MAHER (2009) Simplified Nutrition Manual. Parisianos Publications S.A.
- Zampelas A. (2007) Clinical Nutrition with Pathology Elements. BROKEN HILL PUBL., Athens, Greece.
- Plessas S. T. (2010) Dietetics of Man. E. Plessa Publications.
- Haniotis D. (2014) Diet and Health. Publications K. & K. N. Litsas O.E., Athens, Greece.
- Biesalski H. K., Grimm P. (2008) Nutrition handbook. BROKEN HILL PUBL. LTD, Athens, Greece.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	
LEARNING OUTCOMES		

The aim of the course is to present the methodology of writing scientific papers in order to help students with the difficulties they face when they come into contact with the writing project. In the context of the lectures, the way of formulating the research question, the approach to the issue under negotiation in the paper, its analysis in parameters for the comprehensive presentation of the topic, the search for bibliographic sources, their evaluation and utilization will be analyzed. The teaching will also include instructions on how to write, writing style and structure of the paper, while the bibliographic and citation systems used internationally will be analyzed.

In particular, at the end of the course, the student will be able to:

1. Define and approach the topic of a project with scientific principles.
2. Understand the differences between the different types of scientific papers.
3. Plan the course of a scientific project.
4. Make up the structure of a scientific paper.
5. Write in a scientifically correct way.
6. Cope with the difficulties encountered when writing a scientific paper.
7. Search, evaluate and evaluate relevant literature in the preparation of a scientific paper.
8. Use bibliographic and citation systems.
9. Understand the basic principles of ethics and ethics when writing a scientific paper.
10. Think critically when reading a scientific article.

COURSE CONTENT

1. What is scientific work
2. Types of scientific work (research, review)
3. Basic principles of writing a scientific paper
4. Features of the language code of a scientific paper
5. Selection of the topic of the work
6. Formulation of the purpose and research questions of the study
7. Bibliographic search and bibliography
8. Shaping the content and structuring of a review paper
9. Formulating the content and structuring a research paper
10. Create Tables - Charts - Images
11. Use of bibliographic references
12. Bibliographic citation systems (Harvard, Vancouver)
13. Basic rules for formatting the work
14. Ethical and moral issues - Plagiarism
15. Critical analysis of a scientific paper

RECOMMENDED BIBLIOGRAPHY

- Hacker D., Sommers N. (2023) Writing Rules. Broken Hill Publishers, Nicosia.
- Hall M.G., Greenhalgh T. (2020) How to Read and Write a Scholarly Essay. Broken Hill Publishers, Nicosia.
- Galanis P. (2015) Writing and Publishing Articles in Health Sciences. Broken Hill Publishers, Nicosia
- Joyner R.L. (2019) Thesis and Dissertation Writing. I. Konstantaras, Athens, Greece
- Zafeiropoulos K. (2015) How is a Scientific Work done? Ed. Kritiki, Athens, Greece.
- Bell J. (2007) How to Write a Scientific Paper. Ed. Metahmio, Athens, Greece.
- Tsakraklidis V., Gourgoulidis K.I. (2003) Medical writing and discourse. Ed. Veta, Athens, Greece.

TEACHING	Lectures 2 hours/week	2 ECTS
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TYPE OF COURSE	Optional
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LEARNING OUTCOMES

This course aims to familiarize students with the basic principles and methods of Health Economics. During the semester, students will be introduced to the basic concepts of the health commodity market, demand and supply of health services, health production functions and socio-economic evaluation methods.

At the end of the course, students should be able to:

- Have an in-depth understanding of the functions of the health services market (supply and demand).
- Critically analyze market balancing measures in the health sector at both primary and secondary level.
- Analyze and deepen their understanding of productivity and cost-effectiveness issues in health services
- Apply socio-economic evaluation methods to alternative health services, prioritizing social options and proposing policy measures.
- Understand the important decisions that need to be made in a national health system, and the information needed to make these decisions in the light of limited resources.
- Recognize and understand the interaction of healthcare with other sectors of the economy.

COURSE CONTENT

The themes of the course are developed around the following axes:

1. Object of Economic Science (basic introductory elements and concepts) and definitions of Health, Health Services, Health Services Market, Health System (Primary, Secondary and Tertiary Health Care)
2. Health needs, definition of "Health" and Grossman's model of the demand for health and health services by economic persons
3. Health services market: Demand and Supply
4. Production theory in the health services market
5. Balance in the health services market
6. Reasons for state intervention (demand induced, moral hazard, etc.)
7. Health expenditure, financing, deficits
8. Health system structure, cross-national comparisons, current challenges, and health policies
9. The economic operation of hospital units
10. Socio-economic evaluation methods
11. The pharmaceutical market

RECOMMENDED BIBLIOGRAPHY

- Hletsos M. (2011). Health Economics, Pataki Publications, 1 η ed., Athens, Greece. (EUDOXUS Code:12718416)
- Santerre R., Nine S.P. (2012). Health Economics: Theory, Perspective and Systematic Study. Broken Hill Publishers Ltd., 1 η ed. (Eurex Code: 13256975)
- Yfantopoulos I.N. (2006). The Economics of Health. Publications Dardanos G.-Dardanos K. O.E., 2nd edition, Athens (EUDOXUS Code: 32050)
- Morris S., Devlin N. (2016). Economic analysis in health care. Broken Hill Publishers Ltd, 1st ed. (Eudox Code: 59391164)

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

Biomedical technology is the science that applies principles and methods of engineering, science and technology to biology and medicine/nursing. The course goal is for students to understand complex biological systems and the development of instrumentation, methods and algorithms related to advancing medical and biological knowledge, improving clinical practice, and improving quality of life. Students will become familiar with solving problems in medicine and biological sciences and with the application of engineering principles and advanced technology.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Introduction - Basic concepts of biology.
- ✓ Membranes - Electrical membrane potentials - Diffusion.
- ✓ Neurons - Nervous system - Muscular system.
- ✓ Digital processing of biological signals.
- ✓ Heart Physiology - Cardiogram
- ✓ Measurement of blood pressure.
- ✓ Brain physiology - Electroencephalogram.
- ✓ Methods of medical image reconstruction.
- ✓ CT scan.
- ✓ Ultrasound imaging methods.
- ✓ Introduction to Biomechanics, Medical engineering, Clinical engineering, Rehabilitation engineering.
- ✓ Areas of Biomedical Technology: Biomaterials, Biorobotics, Telemedicine, eHealth, Medical Imaging,
- ✓ Virtual Reality Applications, etc.
- ✓ Implantable systems: Cardiac pacemakers, Hearing aids.
- ✓ Diagnostic systems: Pressure and blood pressure sensors, Glucose sensors.
- ✓ Pharmaceutical applications: Intelligent drug delivery systems, Rehabilitation engineering.
- ✓ MRI, nuclear medicine and radiotherapy.

RECOMMENDED BIBLIOGRAPHY

- Sergiadis D. Georgios, Biomedical Technology, 2009, Publisher: University Studio Press, ISBN: 978-960-12-1774-1.

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

Course objective:

To help students understand the role of the School Nurse in educating target populations (students, school staff and parents) to adopt healthy attitudes and behaviors, as well as in managing health problems and improving the physical and social environment.

At the end of the course, students should:

- Understand the concept and content of school nursing and to understand the role of the school nurse.
- Evaluate the health and safety of the school's physical and social environment.
- Acquire skills in educating the target population.
- Be able to analyze the nursing care provided in the school in the context of primary, secondary, and tertiary prevention.
- Acquire skills in managing and dealing with acute problems in the school environment.
- Acquire skills in the management of chronic health problems in the school environment.
- Help connect the school population with the family and the wider community.
- Be able to distinguish the different roles and functions of school nurses.

COURSE CONTENT

The themes of the course are developed around the following axes:

- ✓ Definitions, purpose, history of school nursing, legislation and standards of practice.
- ✓ Models and theories in school nursing.
- ✓ The role of the school nurse, skills and competence in school nursing.
- ✓ Creating, managing and updating the student health record.
- ✓ Developmental stage and educational process.
- ✓ Application of the nursing process in school nursing.
- ✓ Health education, health promotion and disease prevention in the school environment at the three levels of preventive care.
- ✓ School nurse and the environment.
- ✓ School nurse and child (with an acute problem, first aid, eating disorders, vaccinations).
- ✓ School nurse and child (chronic disease, allergy, psycho-emotional disorders, cognitive disorders, child with special skills).
- ✓ School nurse and family.
- ✓ School nurse and community.

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- ✓ School environment and high-risk behaviours (smoking, violence, pregnancy, cultural diversity, bullying, etc.), Ethical dilemmas and future trends in school nursing.

RECOMMENDED BIBLIOGRAPHY

- Guvra M., Kiridis A.G., Mavrikaki E.Th. (2001) Health Education and School. Publications G. G.Dardanos-K. Dardanos O.E.
- Edelman C., Mandle C. (2009) Health promotion. Parisianou Publications S.A., Athens, Greece.
- Nies M.A., McEwen M. (2012). Community Nursing-Public Health Nursing. D. Rabbit Publications.

PRINCIPLES OF PROGRAMMING & COMPUTATIONAL INTELLIGENCE IN HEALTH SCIENCES

ΠΠΝ620

TEACHING	Lectures 3 hours/week	1 ECTS
	Laboratory exercises 3 hours/week	1 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The course is an introduction to the principles of programming and computational intelligence for health sciences. On the one hand, the course aims to introduce students to computational thinking and its processes. On the other hand, it aims to apply computational thinking to problem solving using Python and MATLAB languages. The course aims both to acquire knowledge of basic programming principles and to understand the new tools that have been developed in recent years under the term Computational Intelligence, which is a descendant of Artificial Intelligence and includes a set of different computational approaches that aim to incorporate some kind of intelligence into machines. Central to this are approaches that incorporate learning capabilities, such as Neural Networks, and mechanisms for making inferences based on incomplete and inaccurate data, such as Fuzzy Systems. Solution search techniques based on evolutionary computation have also seen significant growth in recent years.

Upon successful completion of the course the student will be able to:

- Solve problems by developing projects of significant size
- Program organization based on procedures
- Use of Python and MATLAB programming languages
- Understand the basic principles of Computational Intelligence
- Understand the possibilities offered by techniques based on neural networks and evolutionary computation and their usefulness.

COURSE CONTENT

1st Week: Basic programming concepts. High- and low-level programming languages. Compilers. The concept of process and its representation in the program.

2nd Week: Complexity Management. Source code organization. Scope of names. Abstraction in data and processes. Structured program development in Python and MATLAB and debugging techniques.

3rd Week: Program Flow Control. Review and recap. Basic problem-solving techniques. Numerical problems. Types of variables. Type checking. Formula construction and formula conversions. One-dimensional and multidimensional matrices. Characters and alphanumerics

4th Week: Contexts. Indicators. Calling functions by value and reporting. Constructing combinations and rearrangements.

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

5th Week: Archives. Data structures: linked lists, queues, stacks, trees: Construction and search and management algorithms.

6th Week: Learning algorithms for equation solving and function optimization. Analysis of algorithms. Comparison techniques.

7th Week: Neural Networks, special structures, and their training. Classification. Methods based on transformations and neural networks. Method with GANs (generative adversarial networks).

8th Week: Clustering: K-means, Gaussian mixtures, expectation/maximization method. Considerations for neural network solutions.

9th Week: Data dimension reduction. Singular value decomposition. Principal component analysis. Principal components based on kernels. Dimension reduction using neural networks.

10th Week: modern problems and solution methods with neural networks and learning algorithms.

11th Week: Local search algorithms I: Hill climbing, simulated annealing. Local search algorithms II: Genetic algorithms.

12th Week: Machine learning I: Introduction, model building, decision trees. Machine learning II: Bayesian networks, naive Bayesian models, probabilistic reasoning.

13th Week: Practical Applications in Health Sciences.

RECOMMENDED-BIBLIOGRAPHY

1. Aristides Bouras, Yannis Kappos, Python 3: Algorithmics and Programming, 2020, Keydarithmos Publications Ltd, ISBN 978-960-645-087-7
2. Samaras Nikolaos, Tsiplidis Konstantinos, The Python Book - Writing Code, 2019, Kritiki Publications AE, ISBN 978-960-586-312-8
3. Dimitris Karolidis, Learn Python easily, 2021, Avakas Publications, ISBN 978-960-6789-30-4
4. Gaddis Tony, Getting Started with Python, 2020, Da Vinci Publications, ISBN: 9789609732369
5. Kalafatoudis Dimitris, Stamoulis Giorgos, Programming with Python, 2018, New Technologies Publications, ISBN 978-960-578-040-1
6. Kalatzis Ioannis, Algorithmic Programming in MATLAB Environment, 2016, Andreas Sideris Publications - Ioannis Sideris & S.R.O., ISBN 978-960-08-0692-2
7. Attaway Stormy, MATLAB: A Practical Introduction to Programming and Problem Solving, 2016,

Keydarithmos Publications Ltd, ISBN 978-960-461-663-3

8. Stephanakos C., Programming in MATLAB, 2011, Symmetry Publications, ISBN 978-960-266-349-3

9. Avouris Nikolaos, Koukias Michael, Paliouras Vasilios, Sgarbas Kyriakos, Python - Introduction to Computers, 2018, FORTH-Universitable Publications of Crete, ISBN 978-960-524-529-0

10. Edmonds J. (2016). Algorithms, Modern Approaches. Critical Publications.

11. Boutalis I., Syracoulis G. (2010). Computational Intelligence & Applications. Crikos Publications, G.A., G.A., P.I., G.A., P.A., G.A., A.A., A.A., A.A., A.A., A.A.

12. Theodoridis S., Koutroubas S. (2012). Recognition of Standards, P.H. Publications. Paschalidis

13. Theodoridis S., Pikrakis A., Koutroymbas S., Kavouras D. (2012) Introduction to Pattern Recognition with MATLAB, P.H. Publications. Paschalidis

14. Vlachavas I., Kefalas P., Vassiliadis N., Kokkoras F., Sakellariou H. (2006). Artificial Intelligence. Gourdas Publishing.

15. Mohammed J. Zaki, Wagner Meira Jr, Data Mining and Analysis: Basic Concepts and Algorithms, 2017, Keydarithmos Publications Ltd, ISBN 978-960-461-770-8

16. Tan Pang - Ning, Steinbach Michael, Kumar Vipin, Verykios Vasilios (editors), Introduction to Data Mining, 2018, TZIOLA Publications, ISBN 978-960-418-813-0

TEACHING	Lectures 3 hours/week	2 ECTS
TYPE OF COURSE	Optional	

LEARNING OUTCOMES

The main objective of the course is to help students to acquire the basic knowledge and skills for the effective synthesis and evaluation of a business plan for the realization of a business idea. The aim is to enable students to build on the knowledge gained from the first course (Introduction to Entrepreneurship or a related title) and complement it by focusing on specific areas - such as marketing, financial planning, etc. - to be able to develop a complete business plan and present it to interested parties.

COURSE CONTENT

The course focuses on the following modules:

- ✓ Business plan: what it is and why I need it
- ✓ The concretization and presentation of the business idea
- ✓ Technology, Know-how
- ✓ Market analysis and research - Marketing planning, Distribution - Sales - Pricing and credit, Brand management (brand names, trademarks)
- ✓ Business models
- ✓ The art of negotiation.
- ✓ Decision-making
- ✓ Financing and Financial Management: financing, working capital, capital increases, equity grants, performance monitoring, investment appraisal and planning - budgeting, start-up finance
- ✓ Types of business, basic company law
- ✓ Potential pitfalls and implementation: what makes a business plan successful
- ✓ Management of human resources
- ✓ Business partnerships

The lectures are combined with corresponding workshops.

In the workshops, students form teams to develop and present business plans with the guidance of the lecturer, lab coaches and mentors, members of the business community. The teams discuss and plan their ventures, develop solutions, field research and studies.

Students learn by applying the method in the process of searching and conceiving the business idea, **evaluating it, changing it and presenting it to potential partners and/or investors.**

- ✓ The groups discuss case studies, visit businesses, talk to guest speakers - business people and executives.

RECOMMENDED BIBLIOGRAPHY

1. Entrepreneurship with Principles, 1st Greek Edition/2021, Book Code in EUDOXUS: 102124093, Authors.
2. Creation of New Businesses, 1st Greek-9th American Edition/2015, Book Code in EUDOXUS: 41955510
3. LEAN STARTUP, 2013 Edition, Book Code in EUDOXUS: 42030444, Authors: ERIC RIES

PUBLIC HEALTH NURSING AND PREVENTION**ΠΠΝ711****TEACHING** Lectures 3 hours/week 3 ECTS**TYPE OF COURSE** Compulsory**LEARNING OUTCOMES**

The aim of the course is to understand the basic principles and concepts of Public Health, the social understanding that Public Health requires and the importance of Prevention for Public Health. Also, to understand the role and context of Public Health Nursing in the prevention, protection and promotion of health, the contribution of nursing in preventing the harmful effects of microbial, environmental factors and harmful behaviors on health.

At the end of the course, the student will be able to:

1. Understand the basic concepts and frame of reference of Public Health, Public Health Nursing and Prevention.
2. Master the basic principles of intervention for health promotion and health protection on important public health issues.
3. Know the measures for the prevention of infectious and non-infectious chronic diseases (cardiovascular diseases, malignant neoplasms) and health events (accidents and injuries).
4. Understand health promotion with emphasis on specific issues (smoking, alcoholism, nutrition).
5. Understand environmental health parameters (air pollution, water hygiene).
6. Have critical thinking in the practice of Public Health Nursing.

COURSE CONTENT

1. Introduction to Public Health. Concept and fundamental principles. Public Health Nursing. Definition and operational framework. Key objectives for health in the 21st century.
2. Prevention, Promotion and Protection of Health. Pre-symptomatic screening - Screening. Definition, content, and basic principles.
3. Health Education. Objectives, methodology and program design.
4. General epidemiology and prevention of malignant neoplasms.
5. Specific epidemiology and prevention of selected cancers.
6. Epidemiology and prevention of cardiovascular diseases.
7. General epidemiology and prevention of infectious diseases. General epidemiological characteristics, ways of prevention and control. Immunization and Vaccines.
8. Foodborne diseases. Airborne diseases. Anthroozoonoses. Insect-borne diseases.
9. Sexually transmitted diseases. Diseases caused by blood-borne pathogens.
10. Family planning. Sex education and contraception.
11. Prevention of accidents and injuries.
12. Smoking, alcoholism, and health. Diet and health.
13. Environmental health. Air pollution and health. Waste and wastewater disposal. Water hygiene

RECOMMENDED-BIBLIOGRAPHY

1. Velonakis E.G. (2017) Prevention. Ed. Veta, Athens.
2. Arvanitidou-Vayonas M. (2019) Social, Preventive Medicine and Epidemiology. University StudioPress, Thessaloniki, Greece.
3. Trichopoulos D., Kalapothaki V., Petridou E. (2000) Preventive Medicine and Public Health. Zita, Athens, Greece.
4. Kourea-Kremastinou T. (2010) Public Health. Theory - Practice - Policies. Published by Stefanakis Emmanuel, Athens, Greece.
5. Katsouyannopoulos V. (2009) Hygiene and Social Medicine. Ed. Aphi Kyriakidis, Thessaloniki.
6. Ivanov L.L., Blue C.L. (2014) Epidemiology and public health in nursing. Ed. Broken Hill, Nicosia Cyprus.
7. Nies M.A., McEwen M. (2021) Community nursing/public health nursing. Ed. Lagos D., Athens.
8. Pender N., Murdaugh C., Parsons M.A. (2012) Health promotion and nursing practice. Ed. Lagos D., Athens, Greece.
9. Darviri Ch. (2007) Health Promotion. Broken Hill, Nicosia Cyprus.
10. Mandle C., Edelman C. (2009) Health promotion. Ed. Parisianou, Athens, Greece.

TEACHING	Lectures 2 hours/week	2,5 ECTS
	Clinical practice 2 hours/week	2,5 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

Upon completion of the course, students will have acquired the basic knowledge of nursing anesthesiology. The student will become familiar with perioperative nursing work, the anesthesia team, its operations, interventions, and activities.

COURSE CONTENT

The themes of the course are developed around the following axes that concern both the theoretical and the specific part of the course:

- ✓ History of Nursing Anesthesiology - basic principles of nursing anesthesiology
- ✓ Anesthetic equipment
- ✓ Pre-operative check, nursing anesthetic history
- ✓ Basic principles of oxygenation and ventilation in the operating room
- ✓ Monitoring in nursing anesthesiology
- ✓ Pre-anesthesia and induction of anesthesia
- ✓ Muscle relaxation, analgesia
- ✓ Local and regional anesthesia
- ✓ Perioperative management of a patient on anticoagulation
- ✓ CARPA
- ✓ Recovery unit after surgery

RECOMMENDED BIBLIOGRAPHY

- Clinical Anesthesiology, Morgan & Mikhail (5th ed.), PARISIANOU S.A. 2018

TEACHING	Clinical practice 16 hours/week	15 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is for students to apply in a clinical setting what they have learned during the previous semesters. Students will become familiar with the clinical environment in order to better integrate into it after the completion of their studies.

Upon completion of the course, students will have:

- Developed skills on family care and prevention
- Understood clinical nursing roles and responsibilities
- Connected theoretical knowledge with clinical practice
- Become familiar with and apply the basic principles of nursing diagnostics and process
- Applied ethical and moral principles
- Analyzed planning and health policy issues

COURSE CONTENT

The course includes 16 hours of clinical practice where students (after being divided into groups) will visit primary, secondary and tertiary health care units.

The students will visit clinics in the pathology and surgical fields on the basis of a program set at the beginning of the year. The professors in charge will coordinate the clinical practice and supervise the students.

Faculty members - doctors and nurses of the institutions visited by the students may participate in the clinical training.

RECOMMENDED BIBLIOGRAPHY

- Nursing in Clinical Practice, 6th Edition Authors: Lagos D. 2011
- CLINICAL NURSING SKILLS AND THE NURSING PROCESS
- COLORED ATLAS LYNN PAMELA MEDICAL PUBLICATIONS E.G. PASCHALIDI 2011
- Athanatou Eleftheria K. Pathology and Surgery Clinic Nursing 2011

TEACHING	Lectures 3 hours/week	3 ECTS
	Laboratory 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	
LEARNING OUTCOMES		

The aim of the course is to provide students with the basic knowledge and skills to provide holistic and individualized nursing care to the elderly and chronically ill.

Upon successful completion of the course the student will be able to:

- Know and describe the basic principles and theories of nursing care of the elderly and chronically ill.
- Know and analyze the biology of ageing and the changes in physiological functions of the elderly and the chronically ill.
- Assess the health problems and health needs of the elderly and chronically ill.
- Gather and interpret relevant data and information regarding the planning of nursing care for the elderly and chronically ill.
- Design, develop and implement holistic nursing care plans for the elderly and chronically ill.
- Apply the basic skills related to nursing, physical and psychosocial care of the elderly and chronically ill

COURSE CONTENT

NURSING CARE FOR THE ELDERLY

1. Nursing gerontology: Definitions, demography, life expectancy, theories of aging.
2. Biology of ageing: Changes in physiological functions and losses, management of comorbidity, nursing assessment of health needs of the elderly.
3. Basic skills for nursing care of the elderly: communicating with the elderly, meeting nutritional needs and fluid balance, administering medications, safety and prevention of falls.
4. Contemporary approaches to nursing care of older people: frailty and activities of daily living, physical and psychosocial care, activities and exercise.

NURSING CARE OF THE CHRONICALLY ILL

5. Chronic Diseases: Definitions, disease categories, basic principles of chronic care nursing, quality of life and indicators of quality care, rehabilitation, multidisciplinary team and roles, the informal caregiver, education, empowerment and rights of patients and families, self-care activities, chronic care assessment scales and tests.
6. Nursing care of patients with chronic neurodegenerative diseases: Alzheimer's disease, vascular dementia, frontotemporal dementia, Huntington's disease, Parkinson's disease and atypical Parkinson's syndromes, multiple sclerosis.
7. Nursing care of patients with vascular stroke.
8. Nursing care of patients with chronic respiratory diseases: chronic obstructive pulmonary disease, chronic bronchitis, pulmonary emphysema, asthma, cystic fibrosis.
9. Nursing care of patients with chronic cardiovascular diseases: hypertension, heart failure, coronary artery disease, angina pectoris.

10. Nursing care of patients with chronic metabolic diseases: obesity, glucose metabolism disorders, thyroid disorders.
11. Nursing care of patients with chronic diseases of the urinary tract: chronic kidney disease, chronic pyelonephritis, prostatic hypertrophy and cancer, recurrent urinary tract infections.
12. Nursing care of patients with chronic diseases of the musculoskeletal system: arthritis, osteoporosis, spinal diseases.
13. Nursing care of patients with chronic psychiatric diseases: psychoses and emotional disorders.

RECOMMENDED-BIBLIOGRAPHY

Suggested Bibliography:

- Wold G.H. Basic Geriatrics - Nursing. Scientific Publications PARISIANOU S.A. Athens, 2017.
- Plati X. Gerontological Nursing. Scientific Publications PARISIANOU S.A. Athens, 2008.
- Redfern S.J., Ross F.M. Nursing care of the elderly. BROKEN HILL PUBLISHERS LTD. Nicosia, 2011.
- Sapountzi - Krepia D. Chronic Disease and Nursing Care. Γ. PARICOS & S.A. Athens, 2004.

Related scientific journals:

- Geriatric Nursing: <https://www.journals.elsevier.com/geriatric-nursing>
- Journal of Gerontological Nursing: <https://www.healio.com/nursing/journals/jgn>
- International Journal of Geriatric Nursing: <http://nursing.journalspub.info/index.php?journal=ijgn>
- Journal of Chronic Diseases: <https://www.sciencedirect.com/journal/journal-of-chronic-diseases>
- Preventing Chronic Disease: https://www.cdc.gov/pcd/about_the_journal/index.htm
- Journal of Nursing and Healthcare of Chronic Illness: <https://onlinelibrary.wiley.com/journal/17529824>

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The course “TEACHING METHODS IN NURSING” aims at the appropriate training of nursing students in General Teaching Methodology and Special Teaching of Nursing and other Health Sciences courses. The learning and teaching processes are analyzed, and the opportunity is given to acquire skills in planning and executing a model teaching in the context of Nursing and other Health Sciences. The aim of the course is to enable students to be able to teach with competence the courses related to their specialty in public and private education (Educational Specialty in Nursing PE 87.02), as well as in vocational training institutions of all levels and levels (IEK, KDVM, etc.), which are part of the professional prospects of the graduates of the Department.

The course focuses mainly on:

- The concepts of Learning and Teaching.
- The main theories of Learning are analyzed.
- The General Principles of Teaching Methodology.
- The design and implementation of standard teaching of nursing courses.
- The optional practical training of the students by carrying out teaching with subordination (micro-teaching in simulated conditions of a real classroom).

The course “NURSING TEACHING” is designed to ensure that nursing graduates are adequately trained to meet the teaching requirements of Nursing and other Health Sciences (taught in the Health Care and Wellness Sector of the HSCE), an area that is part of their career prospects.

On successful completion of the course the student will be able to:

- Put knowledge into practice.
- Adapt to new situations.
- Make decisions.
- Perform autonomous work.
- Participate in teamwork.
- Participate in an interdisciplinary environment.
- Participate in the generation of new research ideas.
- Respect diversity and multiculturalism.
- Have social, professional, and ethical responsibility and sensitivity to gender issues.
- Have the ability to think freely, creatively and deductively

COURSE CONTENT

The content of the course “NURSING TEACHING” is structured as follows:

- Basic Concepts: learning, teaching.
- Distance education: modern and asynchronous.
- Major Theories of Learning.
- General teaching methodology: The concept of Didactics and its content, Pedagogical Science – its teaching principles are analyzed.

- v. Detailed Curricula.
- vi. Teaching methods - Teaching techniques.
- vii. Teaching aims and objectives. Teaching Design.
- viii. Organising and planning the teaching of a module - Teaching Scenario: Model lesson plan (aims and methods of teaching, the stages of presentation, application, testing and checking, expected learning outcomes).
- ix. Teaching Evaluation Criteria/Forms of Evaluation - Student Evaluation - Teacher Evaluation.
- x. Special Teaching Methodology in Nursing: Forms of Teaching in Nursing/Teaching and Learning in Clinical Practice/Mentor.
- xi. Activities and Supervisory Material (Supervisory Teaching Tools) in the teaching of nursing courses.
- xii. Evaluation of the teaching of nursing courses.
- xiii. Implementation of micro-teaching by students.

RECOMMENDED-BIBLIOGRAPHY

1. Bradshaw Martha J., Lowenstein Arlene J., Innovative Teaching Strategies in Nursing and Related Health Professions. 5th Ed: Kotrotsiou Evangelia, Paralikas Theodosios, Kotrotsiou Styliani, Modern Teaching Methods for Nurses & Other Care Professionals, 5th Edition, P.H. Publications. PASCHALIDIS, 2012, ISBN: 978-960-489-192-4
2. Kotzampasaki S., Teaching and Learning in Nursing and other Health Sciences, VITA Publications, 2010, ISBN13: 978-960-452-086-2
3. Diane M. Billings, Judith A. Halstead, Teaching in Nursing, A Guide for Faculty, 7th Edition, Published by ELSEVIER, 2023, ISBN: 9780323846684
4. Sandra De Young, Teaching Methods in Nursing, Rabbit D. Publications, 2010, ISBN-10: 9607875443
5. Kassotakis M., Flouris G., Learning & Teaching: Contemporary views on the processes of learning and teaching methodology, Revised edition, GRIGORIS PUBLISHINGS, 2013, ISBN: 978-960-333-794-2
6. Pigiaki P., Preparation, Planning and Evaluation of Teaching: Teaching Methodology, 7th Edition, GRIGORI PUBLISHINGS, 2010, ISBN: 960-333-183-X

CLINICAL NURSING II**ΠΠΝ811**

TEACHING	Clinical practice 16 hours/week	15 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is for students to apply in a clinical setting what they have learned during the previous semesters. Students will become familiar with the clinical environment in order to better integrate into it after the completion of their studies.

Upon completion of the course, students will have:

- Developed skills on family care and prevention
- Understood clinical nursing roles and responsibilities
- Connected theoretical knowledge with clinical practice
- Become familiar with and apply the basic principles of nursing diagnostics and process
- Applied ethical and moral principles
- Analyzed planning and health policy issues

COURSE CONTENT

The course includes 16 hours of clinical practice in which students (after being divided into groups) will visit primary, secondary and tertiary health care units.

Students will visit pathology and surgical clinics according to a schedule set at the beginning of the year. The professors in charge will coordinate the clinical training and supervise the students. Faculty members - doctors and nurses of the institutions visited by the students may participate in the clinical training.

RECOMMENDED BIBLIOGRAPHY

- Nursing in clinical practice, 6th edition Authors: Lagos Dimitrios 2011
- CLINICAL NURSING SKILLS AND THE NURSING PROCESS
- COLORED ATLAS LYNN PAMELA MEDICAL PUBLICATIONS E.G. PASCHALIDI 2011
- Athanatou Eleftheria K. Pathology and surgical nursing clinic 2011

TEACHING	Lectures 2 hours/week	2 ECTS
	Clinical practice 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is to familiarize the student with the principles of patient management and care during surgery and to understand the nursing care and management of patients undergoing endoscopy. Upon successful completion of the course, students will have an understanding of the basic principles of sterilization and disinfection of surgical and endoscopic instruments, the procedure and principles of operating table preparation, and the diagnostic and therapeutic potential of endoscopy.

COURSE CONTENT

The themes of the course are developed around the following axes that concern both the theoretical and the specific part of the course:

- General information about the surgery
- General information on endoscopies
- Basic principles of cleaning and disinfection of surgical instruments and endoscopes
- Organization and operation of the operating table and endoscopic unit
- Indications and contraindications for endoscopy
- Endoscopy complications
- Patient consent for surgery-endoscopy

RECOMMENDED BIBLIOGRAPHY

- ENDOSCOPES OF THE PEPTIC SYSTEM BASIC PRINCIPLES, CLINICAL APPLICATIONS, PERIODIC CARE MAYROGIANNIS K. CHRISTOS VITA Publications 2008
- BASIC PRINCIPLES OF NURSING SURGERY ARCHONTAKIS STAVROS VERSIONS KEYNOTE 2018

TEACHING	Lectures 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is for students to acquire the ability to critically evaluate scientific studies and research data in order to apply them in their clinical practice. The course also aims to enable students to develop guidelines and protocols for health care delivery based on the most recent and valid literature.

Upon completion of the course, students should be able to:

- Know what evidence-based clinical practice is.
- Formulate a research question.
- Design a protocol for searching the literature.
- Identify the most appropriate sources of literature search.
- Select the most appropriate research studies to answer their research questions.
- Prioritise the evidence from the different types of studies relevant to the research question.
- Combine sound scientific knowledge with the views of patients and their environment to formulate the optimal health care plan.
- Identify barriers to the adoption of evidence-based clinical practice and existing strategies to address them.

COURSE CONTENT

- Introduction to the basic concepts.
- Definition of evidence-based knowledge (importance, benefits).
- Formulating the question and exploring the answer.
- Sources of evidence - Bibliography search.
- Research data search and collection process (complex search in electronic databases and libraries).
- Assessing the quality, validity, and reliability of surveys.
- Critical analysis of the methodology and structure of scientific articles.
- Steps for informed decision-making.
- Identification of a problem or practice in question.
- Collecting, evaluating, and organizing the available research data.
- Identification of research gaps.
- Clinical Guidelines - Organizational culture.
- Protocol generation process.
- Presentation of research data and writing a scientific paper.
- Writing a literature review and systematic review.
- Factors influencing positively and negatively the clinical implementation of new protocols and guidelines.

STUDY GUIDE FOR THE 2023-2024 ACADEMIC YEAR

- Interventions for the successful clinical implementation of the new protocols.
- Benefits of implementing evidence-based clinical decision making.
- Risks of not implementing evidence-based clinical decision-making.

RECOMMENDED-BIBLIOGRAPHY

- Dicenso A, Guyatt G, Ciliska D “Evidence-based nursing - A guide for clinical practice” P.H. Paschalidis Publications
- Introduction to Evidence-Based Practice in Nursing and Health Care. Malloch K., Porter-O Grady T. 2006, Jones and Barlett Publishers.
- Evidence-Based Practice: A Primer for Health Care Professionals Dawes T, Davies P, Gray A. 2005,
- Churchill Livingstone Publishers.

INTENSIVE CARE - NURSING IN I.C.U.

ΠΠΝ814/ΠΝΕΞ213

TEACHING	Lectures 4 hours/week	3,5 ECTS
	Clinical practice 2 hours/week.	3,5ECTS
	Laboratory 2 hours/week	2 ECTS
TYPE OF COURSE	Compulsory	

LEARNING OUTCOMES

The aim of the course is to provide students with the necessary theoretical and clinical training on the management of critical situations in patients in Intensive Care Units. Upon successful completion of the course, students will be familiar with the most common emergency situations in ICU, the principles of ICU operation and the management of patients hospitalized in ICU.

COURSE CONTENT

- The topics of the course are developed around the following axes and relate to both the theoretical and the laboratory and clinical parts:
- Introduction to Intensive Care and Nursing in the ICU
- Principles of care for the seriously ill
- Continuous monitoring of respiratory and hemodynamic parameters in the ICU
- Sedation and analgesia in the ICU
- Nursing care of a patient with cataplexy
- Nursing care of a multi-injured patient
- Nursing care of a patient with renal failure in ICU
- Nursing care of a patient with acute heart failure in the ICU
- Nursing care of a patient with respiratory failure in ICU
- Ethical and Legal Issues in the ICU - Organ Donation

RECOMMENDED BIBLIOGRAPHY

- EMERGENCY NURSING - ICU/ NURSING INTERVENTIONS AND COLLABORATIVE CARE BAIRD
- MARIANNE-SAUNORUS, KEEN JANET, SWEARINGEN L. PAMEL. VITA PUBLICATIONS 2011

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