



UNIVERSITY OF THESSALY
SCHOOL OF HEALTH SCIENCES
DEPARTMENT OF MEDICINE



POSTGRADUATE PROGRAMME (MSc)

"Prevention and Management of Critical Infections in Health Units"

M2.4 Course Outlines and Master Thesis

Contents

FIRST SEMESTER	1
SERIOUS VIRAL AND MICROBIAL INFECTIONS OF THE COMMUNITY	1
BASIC PRINCIPLES OF INFORMATION TECHNOLOGY AND STATISTICS.....	7
RESEARCH METHODOLOGY	1
HOSPITAL-ACQUIRED INFECTIONS	18
PSYCHOSOCIAL AND ECONOMIC IMPACTS OF INFECTIONS	23
SECOND SEMESTER	29
PRINCIPLES OF PREVENTION, TRANSMISSION AND SURVEILLANCE OF INFECTIONS	29
TECHNIQUES FOR PREVENTING THE TRANSMISSION OF INFECTIONS I	35
TECHNIQUES FOR PREVENTING THE TRANSMISSION OF INFECTIONS II	41
PREVENTION MEASURES AND MANAGEMENT OF EPIDEMIC OUTBREAKS OF INFECTION	48
THIRD SEMESTER	54
PRACTICAL TRAINING	54
MASTER THESIS.....	59

FIRST SEMESTER**SERIOUS VIRAL AND MICROBIAL INFECTIONS
COMMUNITY****GENERAL**

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MA01	SEMESTER	1 st
COURSE TITLE	SERIOUS VIRAL AND MICROBIAL INFECTIONS OF THE COMMUNITY		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDITS
Lectures		0.9	
Individual Study - Literature Review		5	
Written Assignment		2.7	
Clinical Tutorial		0	
Group Counseling Session		0	
Exams		0.1	
Total		9	5
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
• Reference to the most common infections affecting people living in the community and caused by microbial and viral agents. • Understanding of the most common microbial and viral infections affecting

people living in the community, by system. Thus, the most common infections affecting the upper respiratory system, the lower respiratory system, the cardiovascular system, the central nervous system, the urinary tract, and the gastrointestinal system, while also referring to infections affecting the skin and soft tissues. At the same time, more specific and rare community-acquired infections will be analyzed in a separate lecture.

- Understand the basic microorganisms involved in causing each infection
- Understand the clinical picture with which each infection manifests itself
- Understand the basic principles of pathophysiology governing the infection of each organ
- Be able to understand the basic diagnostic techniques needed to diagnose each infection
- Be able to understand community infections that constitute a medical emergency and require immediate treatment
- Understand the indications for hospital admission for each community infection based on the clinical picture of the patients.
- Understand more broadly the cases of infections that require antimicrobial treatment.

General Competencies

The course aims to

- Searching, analyzing, and synthesizing data and information related to viral and microbial infections in the community
- Making diagnostic and therapeutic decisions concerning viral and microbial infections in the community
- Independent work in presenting data and information related to viral and microbial infections in the community or in a hospital setting for people with community-acquired infections
- Teamwork in a hospital setting with individuals from the community
- Work in an international environment
- Work in an interdisciplinary environment

- Generation of new research ideas

COURSE CONTENT

- Respiratory infections
- Infections of the nervous system
- Cardiovascular infections
- Urinary tract infections
- Skin and soft tissue infections
- Gastrointestinal infections
- Multisystem infections
- Multiple organ failure
- Shock

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	- Face-to-face Lectures - Possibility of distance learning (30%). In certain cases, (compliance with health regulations), the percentage of distance learning may be increased. - Sending of material in the form of presentations, recommended bibliography and sources, and through the posting of self-assessment material
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USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of multimedia presentation tools (ppt, video) -Electronic database of multiple-choice questions -Use of software for presenting lectures and showing slides and videos. -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>	
TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	13
	Clinical tutorial on organ failure	1.5
	Group consultation meeting on topics covered in the module	1.5
	Preparation of study/written assignment	37.5
	<i>Individual study - literature analysis</i>	71.5
	<i>Exams</i>	1.5
	Total course	126.5

STUDENT ASSESSMENT	- Assessment of written work (WW) on a scale of 0-10 in 4 key areas a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (serves the main question/hypothesis/purpose) c) general presentation of text/tables, figures, diagrams (assessment of clarity-precision-appropriateness) d) bibliographic support (assessment of scope of review-relevance- timeliness). Electronic feedback is provided with brief comments on potential improvements to the paper - Written exams (WE) (30 multiple-choice questions to be answered within 60 minutes) - Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions - The general assessment criteria for the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - Final Grade = (WW×0.3) + (WE×0.7)
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RECOMMENDED BIBLIOGRAPHY

- Recommended Bibliography:

- Intensive Care Manual Suhail Raoof, Edited by: Epameinondas Zakynthinos, Demosthenes Makris, 9789604890941
- **PRINCIPLES OF INTENSIVE CARE** - A Concise Guide to Problem Management and Skills. Demosthenes Makris, Epameinondas Zakynthinos, Kallipos Academic Publications

- Related scientific journals:

- New England Medical Journal American Journal of Respiratory and Critical Care Medicine
- Lancet
- JAMA
- Clinical Infectious Disease
- Antimicrobial Agents and Chemotherapy
- Intensive Care Medicine
- Annals of Intensive Care Medicine
- Clinical Microbiology and Infection

BASIC PRINCIPLES OF INFORMATION TECHNOLOGY AND STATISTICS

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MA02	SEMESTER	1 st
COURSE TITLE	BASIC PRINCIPLES OF INFORMATION TECHNOLOGY AND STATISTICS		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDITS
Lectures		0.9	
Clinical tutorial		5.1	
Group counseling session		2.7	
Study/written assignment		0.1	
Study - literature review		0.1	
Exams		0.1	
Total		9	5
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC COMPUTER SKILLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
• Become familiar with the basic principles of Information Science and New Technologies • Use the capabilities of Information Technology in education, clinical practice, and research • Define the basic concepts of Information 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
- Understand the concepts of cloud technologies and utilize them
- Understand and distinguish the concepts of Computational Intelligence, Artificial Intelligence, Machine Learning, and Deep Learning
- Use spreadsheet software
- Use presentation software
- Perform statistical data processing
- Perform statistical analyses
- Visualize the results of analyses
- Present results using presentation software
- Understand and operate synchronous and asynchronous systems

General Skills

The course aims to

- Searching, analyzing, and synthesizing data and information using the necessary technologies
- Transfer scientific concepts to healthcare settings
- Independent work
- Teamwork
- Working in an interdisciplinary environment
- Promotion of creative thinking

COURSE CONTENT

- Basic concepts of information technology
- Remote support – Cloud services
- Internet access technologies
- Internet security
- Internet of Things
- Data Science: Collection – Registration

- Data processing
- Data Analysis
- Drawing conclusions - Presenting data
- Electronic Health
- Electronic Health – Computational Intelligence
- Plagiarism Check

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of interactive electronic platform -Use of multimedia application tools (ppt, video) -Use of software for presenting lectures and showing slides and videos. -A study guide that includes presentation files and relevant international bibliography is available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	<i>Activity</i>	<i>Semester Workload (hours)</i>
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	13
	Interactive exercises	1.5
	Group counseling session	1.5
	Written assignment	37.5
	Study – Literature analysis	71.5
	<i>Exams</i>	1.5
	Total course	126.5

STUDENT ASSESSMENT	- Written work is assessed on a scale of 0-10 in 4 key areas a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (addresses the main question/hypothesis/purpose) c) general presentation of text/tables, figures, diagrams (assessment of clarity-precision-appropriateness) d) bibliographic support (assessment of scope of review-relevance- timeliness). Electronic feedback is provided in the form of brief comments on potential improvements to the paper. - The general criteria for evaluating the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - The final grade is calculated on a scale of 10 as follows: - Final Grade = (Interactive Exercises × 0.4) + (WE × 0.6)
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RECOMMENDED BIBLIOGRAPHY

- Recommended Bibliography:

- Introduction to Information Technology, Alan Evans, Kendall Martin, Mary Anne Poatsy (2022), Kritiki Publications SA.
- Introduction to Information Technology, Christos Th. Panagiotopoulos (2020), Gotsis Konstantinos & Co. Publications.
- Introduction to Information Technology, George Beekman, Ben Beekman (2015), 10th Edition, X. Giourdas & Co.
- Introduction to Computer Science, Behrouz Forouzan (2015), Kleidarithmos Publications Ltd.

Fundamentals of Information Technology, Timothy O'Leary, Linda O'Leary, Daniel O'Leary (2021),

Broken Hill Publishers LTD

Statistics Without Mathematics, C. Dancey, J. Reidy (2022), Kritiki Publications SA.

RESEARCH METHODOLOGY

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICAL		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MA03	SEMESTER	1 st
COURSE TITLE	RESEARCH METHODOLOGY		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDITS
Lectures		0.9	
Individual Study - Literature Review		5	
Written Assignment		2.7	
Clinical Tutorial		0	
Group Counseling Session		0	
Exams		0.1	
Total		9	5
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
• Understanding published works and assessing the usefulness and possible application of their results. • Knowledge of the principles of formulating scientific questions. • Knowledge of the documents required to conduct research • Knowledge of the rules of ethics and conduct governing research • Knowledge of the basic principles of research design

- Knowledge of the necessary skills for collecting, analyzing, and interpreting data.
- Knowledge of quantitative and qualitative methods of data analysis
- Acquisition familiarity with data with the use of biostatistics software.
- Knowledge of the process of selecting a scientific journal and the process of submitting an article.

General Skills

The course reinforces the following general skills:

- Application of scientific principles, methods, and knowledge in medical practice and research
- Application of principles, skills, and evidence-based practices
- Independent work in formulating scientific questions, collecting data, statistical analysis, writing and submitting medical articles
- Teamwork in a hospital and non-hospital environment
- Working in an international environment
- Working in an interdisciplinary environment
- Generation of new research ideas

COURSE CONTENT

- Introduction. Classification of Scientific Articles
- How to formulate a scientific question
- Creating the necessary forms for conducting research
- Materials and Methods. Best international practices for writing Materials and Methods
- Methodology for writing the introduction and title of a scientific article
- Basic principles of statistical analysis
- Methodology for writing statistical analysis in a scientific article
- Methodology for bibliographic research for scientific publication
- Article submission process
- Methodology for writing and presenting results

- Methodology of writing and presenting discussion and conclusions
- Methodology for selecting a scientific journal
- Methodology for Writing Scientific Communications

TEACHING AND LEARNING METHODS - ASSESSMENT

DELIVERY METHOD	Face-to-face lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of interactive electronic platform -Use of multimedia application tools (ppt, video) -Electronic multiple-choice question database -Use of software for presenting lectures and showing slides and videos. -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	13
	Clinical tutorial	1.5
	Group counseling session on topics covered in the module	1.5
	Preparation study/written assignment	37.5
	Individual study - literature analysis	71.5
	Exams	1.5
	Total course	126.5
STUDENT ASSESSMENT		- Written assignment assessment [50% of final grade] - Writing a research paper protocol. - Electronic feedback is provided with brief comments on potential improvements to the paper. - Written exams (30 multiple-choice questions to be answered within 45 minutes) [50% of the final grade] - The general criteria for evaluating the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - The final grade is calculated on a scale of 10 as follows: - Final Grade = $(WW \times 0.5) + (WE \times 0.5)$

RECOMMENDED BIBLIOGRAPHY**- Recommended Bibliography:**

- <https://www.who.int/groups/research-ethics-review-committee/guidelines-on-submitting-research-proposals-for-ethics-review/templates-for-informed-consent-forms>
- <http://ijme.in/pdf/appendix-1.pdf?v=1>
- Labani, et al.: *Data analysis and writing results and discussion*, MAMC Journal of Medical Sciences Published by Wolters Kluwer Medknow
- GALANIS P. *Writing the title and abstract of a research article*. Arch Ell Med 2013, 30:734–741
- ANONYMOUS. *Uniform requirements for manuscripts submitted to biomedical journals*. International Committee of Medical Journal Editors. Ann Intern Med 1997, 126:36–47
- GUSTAVII B. *How to write and illustrate a scientific paper*. 2nd ed. Cambridge University Press, Cambridge, 2008:61–78 DAY RA, GASTEL B. *How to write and publish a scientific paper*. 6th ed. Greenwood Press, Connecticut, 2006:33–48
- ALEXANDROV AV. *How to write a research paper*. Cerebrovasc Dis 2004, 18:135–138
- BRANSON RD. *Anatomy of a research paper*. Respir Care 2004
- GALANIS P. *Writing and publishing research articles in health sciences*. Broken Hill Publishers Ltd & P.H. Paschalidis Publications, Athens, 2013
- Block SM (1996) *Do's and Don'ts of poster presentation*. Biophys J 71(6): 3527–9
- Butz AM, Kohr L, Jones D (2004) *Developing a successful poster presentation*. Journal of Paediatric Health Care 18(1): 45–48

HOSPITAL-ACQUIRED INFECTIONS

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MA04	SEMESTER	1 st
COURSE TITLE	HOSPITAL-ACQUIRED INFECTIONS		
INDEPENDENT TEACHING ACTIVITIES	TEACHING HOURS/WEEK GROUP		CREDITS
Lectures	1.8		
Individual Study - Literature Review	10		
Written Assignment	5.3		
Clinical tutorial	0.2		
Group Counseling Session	0		
Exams	0.2		
Total	18		10
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
• Knowledge of basic concepts related to clinically serious nosocomial infections based on their severity in terms of morbidity and mortality • Understanding of the basic clinical signs of clinically serious nosocomial infections • Understanding the differences between clinically serious nosocomial

infections in terms of diagnosis

- Understanding of basic therapies of clinically serious intra-hospital infections
- Knowledge of basic concepts of multiple organ failure associated with the presence of clinically serious nosocomial infections
- Acquiring knowledge for solving common problems related to the presence of clinically serious nosocomial infections
- Understanding basic principles of and control of clinically serious nosocomial infections

General Competencies

- Searching for, analyzing, and synthesizing data and information related to nosocomial infections, using the necessary technologies
- Making diagnostic and therapeutic decisions regarding nosocomial infections according to the student's professional training
- Working independently to present data and information related to nosocomial infections or in a hospital environment for people with nosocomial infections
- Teamwork in a hospital environment for patients with nosocomial infections
- Work in an international environment
- Work in an interdisciplinary environment
- Generation of new research ideas

COURSE CONTENT

- Respiratory tract infections
- Nervous system infections
- Cardiovascular system infections
- Urinary tract infections
- Skin and soft tissue infections
- Gastrointestinal infections
- Infection related to vascular catheters

- Ventilator-associated infections
- Multisystem infections
- Multiple organ failure
- Shock

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of multimedia presentation tools (ppt, video) -Use of software for presenting lectures and showing slides and videos. -A study guide that includes presentation files and relevant international bibliography is available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	26
	Explanatory tutorials	6
	Practical exercise in Management of tracheostomized patients Monitoring elective tracheotomies	75
	<i>Individual study</i>	143
	<i>Examinations</i>	3
	Total Course	251

STUDENT ASSESSMENT	- Written assignment assessment on a scale of 0-10 in 4 key areas - Written exams (30 multiple-choice questions to be answered within 60 minutes) - Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions - The general assessment criteria for the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - Final Grade = (WW×0.3) + (WE×0.7)
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RECOMMENDED BIBLIOGRAPHY

- <i>Recommended Bibliography:</i> • Intensive Care Manual Suhail Raoof, Edited by: Epameinondas Zakynthinos, Demosthenes Makris, 9789604890941 • PRINCIPLES OF INTENSIVE CARE - A Concise Guide to Problem Management and Skills. Demosthenes Makris, Epameinondas Zakynthinos, Kallipos Academic Publications - <i>Related scientific journals:</i> • Clinical Infectious Diseases • The Journal of Infectious Diseases • American Journal of Respiratory and Critical Care Medicine • Intensive Care Medicine • Annals of Intensive Care Medicine • Chest • Annals of Intensive Care Medicine • New England Medical Journal

PSYCHOSOCIAL AND ECONOMIC IMPACTS OF INFECTIONS

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MA05	SEMESTER	1 st
COURSE TITLE	PSYCHOSOCIAL AND ECONOMIC IMPACTS OF INFECTIONS		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDIT UNITS
Lectures		0.9	
Clinical tutorial		5.1	
Group counseling session		2.7	
Study/written assignment		0.1	
Study - literature review		0.1	
Exams		0.1	
Total		9	5
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
- To acquire knowledge of the basic concepts related to the psychological effects of clinically serious infections - To acquire knowledge concerning the social dimension of clinically serious infections both at the family level and at the broader social level by examining examples of pandemics - Understand the basic principles of health economics and the principles governing the economic impact and management of infections at both the individual and

collective level.

General Competencies

The course aims to

- Search, analyze, and synthesize data and information related to the international classifications of functionality and disability ICF, ICD 10 and ICF
- Complications that require the application of psychosocial rehabilitation due to organ and system failure, using the necessary technologies
- Making diagnostic and therapeutic decisions concerning the psychosocial management of patients with clinically serious infections, depending on the student's professional training
- Assessment of the economic impact of infection management at both the individual and collective levels.
- Independent work in the presentation of data and information related to psychosocial management and the overall treatment of recovery after clinically serious infections. These include mobility, speech, and swallowing disorders, nutritional management, management of orthostatic disorders, neuropsychological disorders, agitation and delirium, as well as the need for social history
- Teamwork in a rehabilitation and physical therapy environment for individuals with clinically severe infections
- Working in an international environment
- Working in an interdisciplinary environment
- Generating new research ideas

COURSE CONTENT

- Immediate and long-term effects of infectious diseases on mental health
- Infections with direct effects on the central nervous system and mental health
- Dealing with the mental health effects of clinically significant infections
- The individual social dimension of critical infection
- The collective social dimension of critical infection
- Impact of pandemics on the mental sphere
- Basic concepts of health economics
- Impact of clinically serious infections on the finances of healthcare facilities
- The impact of nosocomial infections on healthcare economics

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face lectures Possibility of distance learning (30%) In certain cases, (in compliance with health regulations) may be increased in the percentage of distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	- Interactive electronic platform - Use of multimedia presentation tools (ppt, video) - Electronic database of multiple-choice questions - Use of software for presenting lectures and showing slides and videos. - Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	13
	Clinical tutorial	1.5
	Group Counseling session	1.5
	Preparation study/written assignment	37.5
	Study - literature review	71.5
	Exams	1.5
	Total course	126.5

STUDENT ASSESSMENT	Written assignment assessment on a scale of 0-10 based on 4 key criteria: a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (addresses the main question/hypothesis/purpose) c) general presentation of text/tables, figures, diagrams (assessment of clarity-precision-appropriateness) d) bibliographic support (assessment of scope of review-relevance- timeliness). Electronic feedback is provided with brief comments on potential improvements to the paper Written exams (30 multiple-choice questions to be answered within 60 minutes) Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions The general assessment criteria for the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. The final grade is calculated on a scale of 10 as follows: - Final Grade = (WW×0.3) + (WE×0.7)
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RECOMMENDED BIBLIOGRAPHY

- <i>Recommended Bibliography:</i> Students are given articles and reviews from the international bibliography. - <i>Related scientific journals:</i> • European Journal of Physical and Rehabilitation Medicine • Archives of Physical Medicine and Rehabilitation

- Journal of Rehabilitation Medicine
- Clinical Rehabilitation
- Annals of Physical and Rehabilitation Medicine
- Journal of Cardiopulmonary Rehabilitation and Prevention
- American Journal of Physical Medicine and Rehabilitation
- Physical Medicine and Rehabilitation Clinics of North America
- Annals of Rehabilitation Medicine
- Journal of Rehabilitation
- Rehabilitation Research and Practice
- Disability and Rehabilitation

SECOND SEMESTER

PRINCIPLES OF PREVENTION, TRANSMISSION AND SURVEILLANCE OF INFECTIONS

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MB01	SEMESTER	2 nd
COURSE TITLE	PRINCIPLES OF PREVENTION, TRANSMISSION AND SURVEILLANCE OF INFECTIONS		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDITS
Lectures		0.9	
Individual Study - Literature Review		5	
Written Assignment		2.7	
Clinical Tutorial		0	
Group Counseling Session		0	
Exams		0.1	
Total		9	5
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
- To know and identify the modes of transmission, incubation periods, host resistance, and susceptibility to various infections and infectious diseases. - Apply appropriate measures to prevent the spread of infection.

- Be familiar with government regulations and standards governing infection prevention practices.
- Know the criteria for identifying healthcare-associated infections.
- Describe the procedures used in sterilization and disinfection in healthcare facilities.
- Understand in depth the manner and effects of occupational exposure to infections of healthcare workers.
- Demonstrate the necessary management and communication skills management and communication skills necessary to coordinate an effective infection prevention program.

General Competencies

The course aims to

- *Search, analyze, and synthesize data and information related to the prevention of nosocomial infections, using the necessary technologies.*
- *Make decisions regarding the prevention and control of nosocomial infections according to the student's professional training.*
- *Work independently on presenting data and information related to the basic principles and measures for preventing nosocomial infections.*
- *Teamwork in areas of infection prevention and control in a hospital environment.*
- *Work in an international environment*
- *Work in an interdisciplinary environment*
- *Generating new research ideas*

COURSE CONTENT

- General prevention measures
- Measures to prevent the transmission of infection
- Control of the hospital environment
- Surveillance measures
- Basic precautions and techniques in hand hygiene and personal protective equipment (PPE)
- Hospital waste management
- Contact precautions (via droplets/airborne transmission)
- Safe patient transport:
- Visitor control and information
- Environmental hygiene
- Disinfection of surfaces in waiting rooms
- Administrative measures—Compliance with guidelines

TEACHING AND LEARNING METHODS - ASSESSMENT

DELIVERY METHOD	Face-to-face lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of Distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of multimedia presentation tools (ppt, video) -Electronic multiple-choice question database -Use of software for presenting lectures and showing slides and videos. -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	13
	Clinical tutorial on infections and sepsis	1.5
	Group consultation meeting on topics covered in the module	1.5
	Preparation of study/written assignment	37.5
	<i>Individual study - literature analysis</i>	71.5
	<i>Exams</i>	1.5
	Total course	126.5

STUDENT ASSESSMENT	Assessment of written work (WW) on a scale of 0-10 in 4 key areas a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (serves the main question/hypothesis/purpose) c) general presentation of text/tables, figures, diagrams (assessment of clarity-precision-appropriateness) d) bibliographic support (assessment of scope of review-relevance- timeliness). Electronic feedback is provided with brief comments on potential improvements to the work Written exams (WE) (30 multiple-choice questions to be answered within 60 minutes) Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions The general assessment criteria for the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. Final Grade = (WW×0.3) + (WE×0.7)
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RECOMMENDED BIBLIOGRAPHY

- Recommended Bibliography:

1. World Health Organization. *Prevention of hospital-acquired infections: a practical guide*. World Health Organization; 2002.
2. Lówbúry ÉJ, Ayliffe GA, Geddes AM, Williams JD. *Control of hospital infection: a practical handbook*. Springer; 2013 Dec 1.
3. *Intensive Care Handbook* Suhai lRaoof, Edited by: Epameinondas Zakynthinos, Demosthenes Makris, 9789604890941

4. *PRINCIPLES OF INTENSIVE- A Concise Guide Problem Management and Skills. Demosthenes Makris, Epameinondas Zakynthinos, Academic Publications KALLIPOS*

- *Related scientific journals:*

- *The Journal of Infectious Diseases*
- *Clinical Infectious Diseases*
- *Journal of Infection Prevention* The Journal of Infectious Diseases

TECHNIQUES FOR PREVENTING THE TRANSMISSION OF INFECTIONS I

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MB02	SEMESTER	2 nd
COURSE TITLE	TECHNIQUES FOR PREVENTING THE TRANSMISSION OF INFECTIONS I		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDIT UNITS
Lectures		1.8	
Preparation of a study/written assignment		5.3	
Study - literature review		10.2	
Clinical tutorial		0.2	
Group counseling session		0.2	
Exams		0.2	
Total		18	10
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
The course will cover topics related to techniques for preventing the transmission of respiratory infections and bedsores, with an emphasis on intensive care units and special measures for monitoring and compliance with health regulations. The aim of the course is for students to gain in-depth knowledge of hygiene techniques related to the prevention of respiratory, central nervous system infections, bedsores, and infections that are common in intensive care units and involve a variety of techniques (hand hygiene, use of personal protective equipment,

hospital linen management, disinfection of medical equipment, endoscopes, and instruments).

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

- Identify the most common respiratory infections found in patients treated in the ICU
- Organize nursing care and monitor patients with endotracheal tubes or tracheostomies
- Assess and monitor the oral cavity of patients hospitalized in the ICU
- Understand the protocol for preventing ventilator-associated pneumonia (VAP)
- Describes the body hygiene of the critically ill patient
- Knows the guidelines for the prevention and management of bedsores
- Describes the process of preparing, receiving, and admitting patients to intensive care units
- Knows the most common infections in patients who have undergone neurosurgery
- Describes the lumbar puncture protocol
- Is familiar with the nursing monitoring of intra-abdominal cerebrospinal fluid drainage catheters – neurological problem monitoring devices
- Understands the risk factors and characteristics of surgical site infections

General Skills

- Independent Work
- Teamwork
- Decision Making
- Promotion of free, creative, and inductive thinking
- Generating new research ideas

COURSE CONTENT

- Respiratory and CNS infections in the ICU. Risk factors and characteristics of bedsores.
- Clinical guidelines for tracheobronchial suctioning

- Nursing care of patients with a tracheostomy tube
- Nursing care of patients with a tracheostomy
- VAP prevention protocol
- Body hygiene for severely ill patients
- Assessment and control of oral cavity hygiene
- Prevention and management of bedsores in the ICU
- Preparation – Reception – Admission of patients to increased-intensive care units
- CNS infections in patients who have undergone neurosurgery – LP protocol
- Nursing monitoring of intra-abdominal cerebrospinal fluid drainage catheters – neurological problem monitoring devices
- Surgical site infections: Risk factors, characteristics, and recommendations for prevention (preoperative phase, intraoperative phase, postoperative phase)

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of distance learning
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USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of multimedia presentation tools (ppt, video) -Use of software for presenting lectures and showing slides and videos. -A study guide that includes presentation files and relevant international bibliography is available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>	
TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	26
	Clinical tutorial	3
	Group counseling session	3
	Preparation of study/written assignment	75
	Study - literature analysis	143
	Examinations	3
	Total Course	253

STUDENT ASSESSMENT	- Assessment of written work on a scale of 0-10 in 4 key areas a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (addresses the main question/hypothesis/purpose) c) general presentation of text/tables, figures, diagrams (assessment of clarity-precision-appropriateness) d) bibliographic support (assessment of scope of review-relevance- timeliness). Electronic feedback is provided with brief comments on potential improvements to the paper - Written exams (30 multiple-choice questions to be answered within 60 minutes) - Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions. - The general criteria for evaluating written assignments and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - The final grade is calculated on a scale of 10 as follows: - Final Grade = $(WW \times 0.3) + (WE \times 0.7)$
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RECOMMENDED BIBLIOGRAPHY

- Recommended Bibliography:

1. Mary C. Barsanti, Keith F. Woeltje, *Infection Prevention in the Intensive Care Unit, Infectious Disease Clinics of North America*, Volume 23, Issue 3, 2009, Pages 703-725

2. Lord AS, Nicholson J, Lewis A. *Infection Prevention in the Neurointensive Care Unit: A*

Systematic Review. Neurocrit Care. 2019;31(1):196-210.

3. Mazzeffi M, Galvagno S, Rock C. *Prevention of Healthcare-associated Infections in Intensive Care Unit Patients. Anesthesiology. 2021;135(6):1122-1131*

4. Blot S, Ruppé E, Harbarth S, Asehnoune K, Poulakou G, Luyt CE, Rello J, Klompas M, Depuydt P, Eckmann C, Martin-Loeches I, Pova P, Bouadma L, Timsit JF, Zahar JR. *Healthcare-associated infections in adult intensive care unit patients: Changes in epidemiology, diagnosis, prevention and contributions of new technologies. Intensive Crit Care Nurs. 2022;70:103227.*

5. Klompas M. *Prevention of Intensive Care Unit-Acquired Pneumonia. Semin Respir Crit Care Med. 2019;40(4):548-557*

6. He, Minjuan BS; Tang, Amao MS; Ge, Xuedi BS; Zheng, Jie MD. *Pressure Ulcers in the Intensive Care Unit: An Analysis of Skin Barrier Risk Factors. Advances in Skin & Wound Care 29(11):p 493-498, 2016.*

- *Related scientific journals:*

- *American Journal of Respiratory and Critical Care Medicine*
- *Intensive Care Medicine*
- *Annals Intensive Care Medicine*
- *European Respiratory Journal*
- *Chest*
- *Annals of Intensive Care Medicine*
- *New England Medical Journal*
- *The Journal of Infectious Diseases*
- *Clinical Infectious Diseases*

TECHNIQUES FOR PREVENTING THE TRANSMISSION OF INFECTIONS II

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MB03	SEMESTER	2 nd
COURSE TITLE	TECHNIQUES FOR PREVENTING THE TRANSMISSION OF INFECTIONS II		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDITS
Lectures		1.85	
Clinical tutorial		0.2	
Group counseling session		0.22	
Study/written assignment		5	
Study - literature review		10	
Exams		0	
Total		18	10
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
The course aims to provide theoretical knowledge and training in the technical and clinical skills required to prevent the transmission of infections from medical procedures and nursing interventions to individuals with health problems and needs who are either hospitalized or living in the community. Upon successful completion of the course, graduate students will be able to: • Know and describe international guidelines related to the placement, management, and application of peripheral and central venous

catheters, arterial catheters, peripherally inserted central venous catheters, and permanently implanted devices (pacemakers, defibrillators).

- Know and describe international clinical guidelines for enteral and parenteral nutrition in critically ill patients.
- Know and describe international guidelines for the prevention of infections related to drug administration, the placement, management, and retention of urinary catheters, and blood transfusions.
- Identify the key factors contributing to catheter-related infections.
- Apply techniques to prevent the transmission of infections related to the placement, management, and retention of catheters.
- Monitor and assess the condition of patients in order to prevent possible infections related to the presence of catheters.
- Collaborate with members of the interdisciplinary health team.
- Analyze issues arising from the international literature concerning evidence-based clinical practice for infection prevention.

General Competencies

The course aims to develop the following general skills in postgraduate students:

- Searching, analyzing, and synthesizing data and information using the necessary technologies
- Adapting to new situations
- Decision making
- Working independently
- Teamwork
- Working in an interdisciplinary environment
- Generating new research ideas
- Respect for diversity and complexity
- Respect for the natural environment
- Demonstration of social, professional, and ethical responsibility in gender issues
- Exercise of criticism and self-criticism

- Promotion of free, creative, and inductive thinking
- Development of clinical skills

COURSE CONTENT

- Prevention and management of infections related to the placement, management, and retention of peripheral venous catheters.
- Prevention and management of infections related to the placement, management, and retention of arterial catheters.
- Prevention and management of infections related to the placement, management, and retention of central venous catheters.
- Prevention and management of infections related to the placement, management, and retention of permanent implanted catheters.
- Prevention and management of infections associated with the placement, management, and retention of peripherally inserted central venous catheters.
- International clinical guidelines for enteral nutrition in critically ill patients.
- International clinical guidelines for parenteral nutrition in critically ill patients.
- Prevention and management of infections related to the administration of drugs
- Prevention and management of infections related to the placement, management, and retention of urinary catheters.
- Prevention and management of infections related to blood transfusions.
- Prevention and management of infections related to the placement, management, and maintenance of permanent implantable devices (pacemakers and defibrillators).
- Clinical skills and practical applications related to infection prevention and management.

Clinical applications and practical exercises are carried out using simulation techniques on mannequins in the clinical area of the Intensive Care Unit of the University General Hospital of Larissa. Clinical applications provide postgraduate students with the opportunity to develop and cultivate their clinical skills related to specific infection prevention techniques associated with the topics listed above.

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face Lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of multimedia presentation tools (ppt, video) -Electronic multiple-choice question database -Use of software for presenting lectures and showing slides and videos. -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	26
	Clinical tutorial	3
	Group counseling session	3
	Preparation of study/written assignment	75
	Study - literature analysis	143
	Examinations	3
	Total Course	253

STUDENT ASSESSMENT	- Final written exam (60%) including: - Multiple choice questions - True/false questions - Critical development questions - Comparative evaluation of theoretical data - Analysis of roles and stakeholders in a short case study - Solving problems related to infection control and prevention data - Solving exercises during classes (40%) (WW). - Written exams (WE) (30 multiple-choice questions to be answered within 60 minutes) - Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions - The general assessment criteria for the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - The final grade is calculated on a scale of 10 as follows: - Final Grade = $(WW \times 0.4) + (WE \times 0.6)$
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RECOMMENDED BIBLIOGRAPHY*- Recommended Bibliography:*

- *Apostolopoulou E. Healthcare-associated infections. Published by CHVALES A. & HATZISYMEON K., 2016.*
- *Benett L. Hospital Infections. BROKEN HILL PUBLISHERS LTD, 2004.*
- *Faso G., Kelesi M., Papageorgiou D. Principles and clinical skills in nursing. KONSTANTARAS I. Publications, 2019.*
- *Fragiadaki E. Central venous catheters, infections, and preventive measures. Oselotos Publications, 2012.*
- *Iatrakis G. Hospital infections. BROKEN HILL PUBLISHERS LTD, 2010.*
- *PerryGA. Basic nursing and clinical skills. BROKEN HILL PUBLISHERS LTD, 2011.*
- *WilliamsP. Basic principles and skills of nursing care. LAGOS D. Publications, 2021.*
- *LynnP. Clinical Nursing Skills and the Nursing Process. BROKEN HILL PUBLISHERS LTD, 2011.*

Related Scientific Journals

- *International Journal of Infection Control, <https://www.ijic.info/>*
- *Journal of Prevention and Infection Control, <https://journals.indexcopernicus.com/search/details?id=47240>*
- *Infection Prevention and Control: Practical and Educational Advances, https://www.mdpi.com/journal/tropicalmed/topical_collections/infection_prevention_control*
- *Journal of Infection Prevention, <https://journals.sagepub.com/home/bji>*
- *American Journal of Infection Control, <https://www.ajicjournal.org/>*

PREVENTION MEASURES AND MANAGEMENT OF EPIDEMIC OUTBREAKS OF INFECTIONS

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MB04	SEMESTER	2 nd
COURSE TITLE	PREVENTION MEASURES AND MANAGEMENT OF EPIDEMIC OUTBREAKS OF INFECTIOUS DISEASES		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS/WEEK GROUP	CREDIT UNITS
Lectures		0.9	
Individual Study - Literature Review		5	
Written Assignment		2.7	
Clinical Tutorial		0	
Group Counseling Session		0	
Exams		0.1	
Total		9	5
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	BASIC UNDERGRADUATE KNOWLEDGE OF HEALTH SCIENCES AND RELATED SCHOOLS		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
• Knowledge of the basic historical, epidemiological, and clinical characteristics of pandemic infections • Knowledge of the characteristics of the COVID-19 pandemic and understanding of the common and different characteristics compared to previous pandemics • Knowledge of the basic principles of nursing care in pandemic situations

infections based on their different clinical and epidemiological characteristics

- Understanding of the basic measures for preventing horizontal transmission of infections outside and inside hospitals
- Understanding of the basic principles governing the use of personal protective measures and the application of aseptic non-contact techniques
- Knowledge of the theoretical principles underlying the physical and oral hygiene of patients with pandemic infection
- Knowledge of the principles governing pre- and post-operative nursing care for patients with pandemic infection

General Skills

The course aims to impart the necessary theoretical and practical knowledge required for

- Searching for, critically analyzing, and synthesizing data related to pandemic infections and their treatment, using the necessary technological aids
- Making appropriate decisions regarding the basic management of patients in situations of pandemic infections, using and applying appropriate protocols
- Applying the necessary skills to achieve the containment of pandemic infections
- Working and collaborating effectively and harmoniously in clinical settings for the management of pandemic infections
- Generating new research ideas in the fields of epidemiology, clinical management, and prevention of pandemic infections

COURSE CONTENT

- Characteristics of Pandemic Infections
- History of Pandemic Infections
- The COVID-19 pandemic
- Basic nursing care in specific pandemic infection situations
- Prevention of horizontal transmission of infections

- Guide to the proper use of gloves and personal protective equipment
- Body hygiene for severely ill patients with pandemic infection
- Oral hygiene protocol for patients with pandemic infection
- Non-contact aseptic technique (NCAT)
- Problems and preoperative nursing care for adults with pandemic infection
- Problems and postoperative nursing care for adults with pandemic infection

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face Lectures Possibility of distance learning (30%) In certain cases (in compliance with health regulations) may be increased in the percentage of distance learning
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	-Use of interactive electronic platform -Use of multimedia presentation tools (ppt, video) -Electronic multiple-choice question database -Use of software for presenting lectures and showing slides and videos. -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Lectures (In some modules, group work and real-world problem-solving methods are used to encourage feedback-based learning)	13
	Clinical tutorial	1.5
	Group counseling session	1.5
	Preparation study/written assignment	37.5
	Study - literature analysis	71.5
	Exams	1.5
	Total course	126.5

STUDENT ASSESSMENT	- Assessment of written work on a scale of 0-10 in 4 key areas a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (addresses the main question/hypothesis/purpose) c) general presentation of text/tables, figures, diagrams (assessment of clarity-precision-appropriateness) d) bibliographic support (assessment of scope of review-relevance- timeliness). Electronic feedback is provided with brief comments on potential improvements to the paper - Written exams (30 multiple-choice questions to be answered within 60 minutes) Electronic access is provided to a database of 120 questions to gain experience and familiarize oneself with the spirit of the final assessment questions - The general assessment criteria for the written assignment and final exams are discussed in a group consultation meeting at the beginning of the course and at the end of the lecture series. - The final grade is calculated on a scale of 10 as follows: - Final Grade = $(WW \times 0.3) + (WE \times 0.7)$
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RECOMMENDED BIBLIOGRAPHY

- <i>Recommended Bibliography:</i> Students are given articles and reviews from the international bibliography. - <i>Related scientific journals:</i> • International Journal of Infection Control, https://www.ijic.info/
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- Journal of Prevention and Infection Control, <https://journals.indexcopernicus.com/search/details?id=47240>
- Infection Prevention and Control: Practical and Educational Advances, https://www.mdpi.com/journal/tropicalmed/topical_collections/infection_prevention_control
- Journal of Infection Prevention, <https://journals.sagepub.com/home/bji>
- American Journal of Infection Control, <https://www.ajicjournal.org/>

THIRD SEMESTER

PRACTICAL TRAINING

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MG01	SEMESTER	3 rd
COURSE TITLE	PRACTICAL TRAINING		
INDEPENDENT TEACHING ACTIVITIES	TEACHING HOURS/WEEK GROUP		CREDITS
Clinical tutorial - laboratory	1		
Group counseling meeting	0.3		
Written assignment	2.5		
Individual study - literature review	11		
Practical training	3		
Total	18		10
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	MA01, MA02, MA03, MA04, MA05, MB01, MB02, MB03, MB04		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
The course aims to: • Understanding the working environment of specialists providing care and nursing to patients with clinically serious infections • Understanding the nursing environment of patients with clinically serious infections • Acquiring knowledge of the technology and logistical infrastructure supporting

patients with clinically serious infections

- 55555555Acquiring knowledge in therapeutic interventions and therapies for patients with clinically serious infections
- Understanding the structure and functioning of teamwork in the hospitalization and care of patients with clinically serious infections
- Understanding the hierarchical structure and distribution of work in the hospitalization and care of patients with clinically serious infections

General Competencies

The course aims to

- Searching, analyzing, and synthesizing data and information related to the practical application of therapeutic interventions in patients with clinically severe infections
- Improve decision-making regarding the practical application of therapeutic interventions in critically ill patients with clinically serious infections
- Improve the professional competence of employees in hospitals and care facilities for patients with clinically severe infections
- Independent work in the presentation of data and information relating to the hospitalization and care of patients with clinically serious infections
- Teamwork in a hospital setting with patients suffering from clinically serious infections
- Working in an international environment
- Working in an interdisciplinary environment
- Generation of new research ideas

COURSE CONTENT

- Laboratory exercise in the care of patients with clinically serious infections
- Monitoring the medical care of patients with clinically serious infections
- Monitoring the nursing work of patients with clinically serious infections
- Monitoring the physical therapy of patients with clinically serious infections
- Monitoring of the work of ward assistants caring for patients with clinically serious infections
- Monitoring procedures coordination and implementation team workin

patients with clinically severe infections

- Technological support tools for patients with clinically severe infections

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD	Face-to-face meetings and discussions
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of information and communication technologies that serve clinically serious infection units -mechanical ventilator -Hemodynamic monitoring monitor -extracorporeal membrane oxygenation machine -interactive electronic platform -use of multimedia tools (ppt) -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>

TEACHING ORGANIZATION	Activity	Semester Workload (hours)
	Clinical tutorial – Laboratory Presentation of cases of patients with critical infections and work in hospital wards for patients with critical infections	49
	Group consultation meeting on practical training organization issues	2
	Individual Study - literature analysis	157
	Practical training in health units for patients with clinically serious infections	42
	Total Course	25
STUDENT ASSESSMENT		- Filling out attendance logbook at Health Unit - Selection and participation in indicative interventions

RECOMMENDED BIBLIOGRAPHY

- <i>Recommended Bibliography:</i> • Demosthenes Makris, Vasiliki Tsolaki, Ross Robertson, George Dimopoulos, Jordi Rello. The future of training in intensive care medicine: A European perspective Journal of Intensive Medicine 2022, https://doi.org/10.1016/j.jointm.2022.07.002. • Intensive Care Manual Suhail Raoof, Edited by: Epameinondas Zakynthinos, Demosthenes Makris, 9789604890941 • PRINCIPLES OF INTENSIVE CARE - A Concise Guide to Problem Management and Skills. Demosthenes Makris, Epameinondas Zakynthinos, Academic Publications KALLIPOS - <i>Related scientific journals:</i>

- American Journal of Respiratory and Critical Care Medicine
- Intensive Care Medicine
- Annals of Intensive Care Medicine
- European Respiratory Journal
- Chest
- Annals of Intensive Care Medicine
- New England Medical Journal

MASTER THESIS

GENERAL

SCHOOL	OF HEALTH SCIENCES		
DEPARTMENT	MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE		
COURSE CODE	MG02	SEMESTER	3 rd
COURSE TITLE	POSTGRADUATE DIPLOMA THESIS		
INDEPENDENT TEACHING ACTIVITIES	TEACHING HOURS/WEEK GROUP		CREDITS
Individual Written Assignment - MT	34		
Face-to-face counseling meetings-discussions (Supervising professor)	1.6		
Group counseling meeting	0.2		
Total	35		2
TYPE OF COURSE	General Background		
PREREQUISITES COURSES:	MA01, MA02, MA03, MA04, MA05, MB01, MB02, MB03, MB04		
LANGUAGE OF INSTRUCTION AND EXAMS:	GREEK – OPTIONAL ENGLISH		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)			

LEARNING OUTCOMES

Learning Outcomes
The course aims to: • Understanding the principles of presenting scientific data in written text (MT) and in public presentations using multimedia • Understanding the structure of a scientific text • Acquiring knowledge for the production of a scientific text based on international requirements and criteria for acceptable publication in medical journals with a peer review system • Acquisition of specialized knowledge in one of the cognitive fields of management

of patients with clinically serious infections

- Application of statistical data processing knowledge

General Skills

The course aims to

- Search, analyze, and synthesize data and information related to the production of a scientific text
- Promoting specialized knowledge related to epidemiological data, diagnostic methods, and therapeutic interventions for clinically serious infections in healthcare facilities
- Improve the scientific and professional competence of workers in the field of clinically serious infections in healthcare facilities
- Independent work in the presentation of data and information related to the prevention and control of clinically serious infections in healthcare facilities
- Competence to work in an international environment
- Competence to work in an interdisciplinary environment
- Generation and processing of new research ideas

COURSE CONTENT

- Searching for data and information related to the production of a scientific text
- Production of written text (MT) based on international requirements and criteria for acceptable publication in medical journals with a peer review system (Peer Review Journals)
- Presentation of scientific data in a public presentation using multimedia

TEACHING AND LEARNING METHODS – ASSESSMENT

DELIVERY METHOD

In person meetings- discussions (Supervising professor)

USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of information and communication technologies that serve in areas of clinically serious infections in health units - Analyzers for immediate examination of microbiological samples - Mechanical ventilator - Hemodynamic monitoring monitor - Extracorporeal clearance machine - Existence of an interactive electronic platform - Use of multimedia tools (ppt) - Electronic database of multiple-choice questions -Study guide including presentation files and relevant international bibliography available online to students <i>Information about the course and the instructors is available at the MSc office</i> <i>Communication via e-mail and telephone on predetermined days/times</i>											
TEACHING ORGANIZATION	<table><tr><th>Activity</th><th>Semester Workload (hours)</th></tr><tr><td>Written assignment - MSc Individual literature review, data processing, and writing of the assignment</td><td>475</td></tr><tr><td>Inter consultation consultative meetings- discussions (Supervising professor)</td><td>22.5</td></tr><tr><td>Group Consulting meeting</td><td>3</td></tr><tr><td>Total Course</td><td>501</td></tr></table>	Activity	Semester Workload (hours)	Written assignment - MSc Individual literature review, data processing, and writing of the assignment	475	Inter consultation consultative meetings- discussions (Supervising professor)	22.5	Group Consulting meeting	3	Total Course	501	
Activity	Semester Workload (hours)											
Written assignment - MSc Individual literature review, data processing, and writing of the assignment	475											
Inter consultation consultative meetings- discussions (Supervising professor)	22.5											
Group Consulting meeting	3											
Total Course	501											

STUDENT ASSESSMENT	- Written assignment assessment (MT) - on a scale of 0-10 in 5 key areas a) text structure (title page - summary - introduction - purpose - method - results - discussion - conclusion) b) text content (serves the main question/hypothesis/purpose) The adequacy of the methodological design and the conduct of the research is assessed c) general presentation of text/tables, figures, diagrams (evaluation of clarity-precision-appropriateness) d) bibliographic support (evaluation of the scope of the review-relevance-timeliness). e) public, oral presentation of the MSc thesis by the students Electronic feedback is provided in the form of brief comments on potential improvements to the thesis
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RECOMMENDED BIBLIOGRAPHY

- Recommended Bibliography:

- Bjorn Gustavii, How to write and illustrate a scientific paper Cambridge 2003
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