COURSE DETAILS

"HYGIENE AND COMMUNITY MEDICINE"

SSD 06/MEDS-24/B

DEGREE PROGRAMME: MEDICINE AND SURGERY

ACADEMIC YEAR2024-2025

GENERAL INFORMATION–TEACHER REFERENCES

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Professor surname and name	Position	Scientific Fields:	Phone	Office Hours *	E-mail
Zarrilli Raffaele	Full Professor	Hygiene	3026	Fri. 14:00-15:00	rafzarri@unina.it
Montuori Paolo	Full Professor	Hygiene	3027	Fri. 15:00-17:00	pmontuor@unina.it
Palladino Raffaele	Full Professor	Hygiene	3354	Wed. 11:00-13:00	raffaele.palladino@unina.it

GENERAL INFORMATION ABOUT THECOURSE

INTEGRATED COURSE (IF APPLICABLE):HYGIENE AND COMMUNITY MEDICINE
MODULE (IF APPLICABLE):
SSD OF THE MODULE (IF APPLICABLE):
TEACHINGLANGUAGE: ENGLISH
CHANNEL (IF APPLICABLE):
YEAR OF THE DEGREE PROGRAMME(I, II, III): III
SEMESTER (I, II, ANNUAL): I
CFU: 8

REQUIRED PRELIMINARY COURSES (IF MENTIONED IN THE COURSE STRUCTURE "REGOLAMENTO")
None

PREREQUISITES (IF APPLICABLE)

For an in-depth understanding of the topics discussed in the Hygiene and Community Medicinecourse, students should have acquired knowledge of biostatistics, physics, biology, and microbiology.

LEARNING GOALS

The integrated course aims to give students the ability to interpret and assess population health in a global perspective, through the identification and the evaluation of the environmental and professional risks, and the determinants of communicable and non-communicable diseases. The course also aims to improve the understanding of collective and individual prevention strategies, including the legislative instruments and the healthcare organization and management. The integrated course aims to provide knowledge and skills in: General and applied epidemiology; Healthcare management, organization, strategic planning, and health economics principles;Prevention strategies for individual and collective; Environmental hygiene, Hygiene and safety of living and working environments; Epidemiology and prevention of infectious diseases and chronic degenerative diseases; Food hygiene and nutrition; Community Medicine, Clinical governance; Risk Management. The integrated course also aims to provide knowledge and skills in interpreting routinely collected healthcare data for health promotion and healthcare planning.

EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)

Knowledge and understanding

The student should demonstrate understanding of health prevention and health promotion methods and tools for individuals and populations, taking into account environmental protection, gender differences, and health inequalities. The Student should understand the principles of health organization, planning and management and their applications for health protection. Such tools will enable students to learn about the determinants of public health and their implications for health promotion.

The student should be able to apply in practice: 1) the epidemiological tools for health planning in relation to health demand; 2) the methodologies for assessing and preventing environmental and food pollution; 3) the tools for the prevention of infectious and chronic diseases. The student must be able to solve problems of public health and preventive medicine even in state of emergencies.

Applying knowledge and understanding

- **Autonomy of judgment**: The Student should be able to independently evaluate the epidemiological data, the pollution indicators of the living and working environments, to manage the prevention interventions for infectious and chronic diseases, to plan integrated pathways within the healthcare settings and within the regulatory boundaries of the health system, to solve complex public health problems, including emergencies.
- **Communication skills**: The student should be able to communicate to the individual and the community regarding environmental and occupational risks in a clear and evidence-based manner. They should be able to read a scientific work of epidemiology and prevention, knowing how to summarize it and using the scientific language correctly. During the exam, they should master the scientific language in the field of individual and collective risk management and should be able to apply the appropriate approaches for the management of resources in health.
- **Learning skills**: by the end of the course the student should be equipped with the basic tools necessary to enable him to address the main issues of public health and preventive medicine. The Student should demonstrate learning ability on scientific data and theoretical-practical experiences. The student's learning is also periodically evaluated with IT tools as part of training courses and internships.

COURSE CONTENT/SYLLABUS

EPIDEMIOLOGICAL METHODOLOGY.

Fundamental elements characterizing the knowledge of the population health in view of prevention and health promotion: regulatory frameworks, epidemiological analyses, levels of planning, management mechanisms, economic analyses.

Epidemiological methods useful to critically appraise observational, analytical, and experimental studies.

Epidemiological measures of frequency and association.

Epidemiological data and their current use in public health.

Design and interpretation of the different types of epidemiological studies with particular emphasis on the definition of the sources and control of random and systematic errors.

PREVENTIVE MEDICINE.

Individual and collective prevention strategies: lifestyles, screening, rehabilitation.

HEALTHCARE MANAGEMENT, ORGANIZATION, STRATEGIC PLANNING AND BUSINESS ECONOMICS PRINCIPLES.

Regulatory framework on the establishment and reform of the NHS.

Management control and assessment of health managers.

Economic approach to the study of health phenomena. Health and social Planning and assessment.

Clinical governance and risk management.

Quality assessment in NHS: accreditation and certification. Fiscal federalism and standard costs.

ENVIRONMENTAL AND WORKPLACE HYGIENE.

Atmospheric air. Indoor Environment. Drinking water.Ground.

Wastewater. Solid Waste: Legislative Decree 152/06. Environmental Impact Assessment.

Noise. Lighting. Ionizing radiation.

Occupational health (workplace; prevention Risk Assessment; Environmental and biological monitoring).

Legislative Decree no. 81/08: risks in healthcare settings.

FOOD HYGIENE AND NUTRITION.

Catering. The HACCP system. Food storage. Risks associated with the food consumption.

EPIDEMIOLOGY AND PROPHYLAXIS OF INFECTIOUS DISEASES.

Epidemiology and prevention of airborne, bloodborne, fecal-oral and direct contact infectious diseases.

Epidemiology and prophylaxis of anthropozoonoses, vector-borne, and sexually transmitted diseases.

Epidemiology and prevention of hospital acquired infections. Epidemic and pandemics management.

COMMUNITY MEDICINE.

Social-health integration. Health as a complex process. Health as individual right within a protection group.

Levels of integration between operators, administrators and patients.

Secondary and primary care integration in the area. The healthcare networks.

EPIDEMIOLOGY AND PREVENTION OF CHRONIC DEGENERATIVE DISEASES.

Lifestyle prevention. Screenings. Planning and assessment of prevention of chronic degenerative diseases.

Week	Day, Hour	Professor	Formal Lectures (ILA -Interactive Learning Activities)
1 October 7th – 11th, 2024	Mon, 7th 14:00-15:00	Palladino	Epidemiology in the health data measurement and monitoring. Routinely collected health data.
	Mon, 7th 15:00-16:00	Palladino	Epidemiology as a tool to identify individuals at risk. Designing and interpreting data from observational data.
	Thu, 10th 14:00-15:00	Zarrilli	Soil pollution. The waste removal and disposal. The sanitarywaste.
	Thu, 10th 15:00-16:00	Zarrilli	Water Pollution, wastewater and sewage disposal.
2 October 14th – 18th, 2024	Mon, 14th 14:00-15:00	Palladino	Use of routinely collected health data for the evaluation of health, hospital and territorial planning. (ILA)
	Mon, 14th 15:00-16:00	Palladino	Routinely collected healthcare data: Hospital Discharge Records, Death Certificates, and Cancer Registry. (ILA)
	Thu, 17th 14:00-15:00	Palladino	European Health Systems organization.
	Thu, 17th 15:00-16:00	Palladino	Health legislation for National Health Service organization.
3 October 21st – 25th, 2024	Mon, 21st 14:00-15:00	Palladino	Authorization and accreditation of health facilities
	Mon, 21st 15:00-16:00	Palladino	Authorization and Accreditation of health structures. Use of health indicators for the evaluation of the hospital and territorial offer. Evaluation Methods of health management. (ILA)
	Thu, 24th 14:00-15:00	Palladino	Italian Public Health Organizations: ASL, the District, PO, AO: roles and assistance functions. The Hospital Care.
	Thu, 24th 15:00-16:00	Palladino	Public Health preparedness and response to pandemics
4 October-November, 28th – 1st, 2024	Mon, 28th 14:00-15:00	Palladino	Clinical governance, risk management e health technology assessment.
	Mon, 28th 15:00-16:00	Palladino	Clinical risk management in health facilities. Practical examples of HTA application. (ILA)
	Thu, 31st 14:00-15:00	Zarrilli	Water quality, human consumption and health effects. Hygiene of sanitary water systems.
	Thu, 31st 15:00-16:00	Montuori	Outdoor and indoor air quality and health risks.
5 November 4th – 8th, 2024	Mon, 04th 14:00-15:00	Palladino	Epidemiology and prevention of risks in the living and working environments. Legislative Decree no. 81/08. Assessment and risk management in health facilities.
	Mon, 04th 15:00-16:00	Palladino	Environmental Impact Assessment, Environmental Impact Authorization, Health Impact Assessment and Health Damage Assessment. Planning and execution of environmental epidemiology studies (ILA).
	Thu, 07th	Montuori	Measurement methods of air and water quality (ILA) - Tracking methods

	14:00-15:00		of waste management facilities and wastewater. (ILA)
	Thu, 07th 15:00-16:00	Montuori	Methods of assessment and risk prevention in healthcare settings. The management of physical, chemical and biologicalinjuries. (ILA)
6 November 11th – 15th, 2024	Mon, 11th 14:00-15:00	Zarrilli	Food: storage and catering.
	Mon, 11th 15:00-16:00	Zarrilli	Food: chemical and biological hazards. The HACCP system.
	Thu, 14th 14:00-15:00	Zarrilli	Practical assessment of physical, chemical and biological risks associated with food and catering. (ILA)
	Thu, 14th 15:00-16:00	Zarrilli	Methods and procedures of sanitization and disinfection.
7 November 18th –22nd, 2024	Mon, 18th 14:00-15:00	Zarrilli	Procedures and Guidelines of disinfection and sterilization: the check list. Environmental microbiological monitoring to assess the efficacy of sanitation, disinfection, and sterilization procedures. (ILA)
	Mon, 18th 15:00-16:00	Zarrilli	Epidemiology of infectiousdiseases.
	Thu, 21st 14:00-15:00	Zarrilli	Prophylaxis of infectious diseases: notification, isolation, detection and the epidemiological investigation.
	Thu, 21st 15:00-16:00	Zarrilli	Active and passive immunoprophylaxis: vaccines, serums, Immunoglobulins.
8 November, 25th – 29th, 2024	Mon, 25th 14:00-15:00	Zarrilli	Epidemiology and prevention of airborne diseases.
	Mon, 25th 15:00-16:00	Zarrilli	Epidemiology and prevention of oral-fecal transmitted diseases.
	Thu, 28th 14:00-15:00	Zarrilli	Epidemiology and prevention of parenteral transmitted diseases.
	Thu, 28th 15:00-16:00	Zarrilli	Epidemiology and prevention of Healthcare-Associated Infections (HAIs).
9 December 2nd – 6th, 2024	Mon, 02nd 14:00-15:00	Palladino	Preventive medicine. Screening and their organization in the NHS. Departments of Public Health in Italy: organization and functions.
	Mon, 02nd 15:00-16:00	Palladino	Use of epidemiological studies for the identification of high-risk groups to support resource allocation and public health planning (ILA)
	Thu, 05th 14:00-15:00	Zarrilli	Epidemiology and prevention of complex transmission diseases.
	Thu, 05th 15:00-16:00	Zarrilli	Epidemiology and prevention of vertical transmission diseases.
10 December 9th – 13th, 2024	Mon, 09th 14:00-15:00	Zarrilli	Epidemiology and prevention of emerging infectious diseases.
	Mon, 09th 15:00-16:00	Zarrilli	Epidemiology and prevention of vector-borne diseases.
	Thu, 12th 14:00-15:00	Zarrilli	Doctor behavior in suspected cases of infectious diseases of Class I, II, III, IV and V: Complaint, isolation, epidemiological investigation, disinfection,

			chemoprophylaxis and immunoprophylaxis. (ILA)
	Thu, 12th 15:00-16:00	Zarrilli	Application of epidemiological Methods to the prevention and surveillance of Healthcare-Associated Infections (HAIs). (ILA)
11 December 16th – 20th, 2024	Mon, 16th 14:00-15:00	Palladino	The global burden of cardiovascular disease
	Mon, 16th 15:00-16:00	Palladino	The global burden of cancer disease
	Thu, 19th 14:00-15:00	Palladino	Planning and evaluation of food hygiene and lifestyles programs for the prevention of chronic degenerative diseases. (ILA)
	Thu, 19th 15:00-16:00	Palladino	Planning a screening campaign: barriers and pitfalls. Cardiovasculardisease screening (ILA).

READINGS/BIBLIOGRAPHY

Joann Elmore, Dorothea Wild, Heidi Nelson, David Katz. Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health, 5th Edition. Elsevier Saunders, 2020. eBook ISBN: 9780323681001. Paperback ISBN: 9780323642019.

Marcello Pagano, Kimberlee Gauvreau, Heather Mattie. Principles of Biostatistics 3rd edition. ISBN 9780367355807

Published June 7, 2022 by Chapman & Hall

Snashall D. ABC of Occupational & Environmental Medicine 3/e. Publisher WILEY, 2012. ISBN: 9781444338171; Price: 41,92 Euro.

Forsythe S. J., Hayes P. R. Food Hygiene, Microbiology and HACCP. AN ASPEN Publication, 2010. ISBN: 9781461359197; Price: 89,42 Euro.

Johan Giesecke. Modern Infectious Disease Epidemiology, Third Edition Paperback – 5 Apr 2017. CRC Press Taylor & Francis Group. ISBN: 9781444180021; Price: 60,31 Euro.

TEACHING METHODS

The course includes lectures, interactive lessons, and training activities.Clerkship activities will focus on practical aspects of what is covered by lectures.

EXAMINATION/EVALUATION CRITERIA

a) Examtype:

Examtype	
writtenandoral	X
onlywritten	
onlyoral	
project discussion	
other	

In case of a written exam, questions refer to:	**Multiple choiceanswers**	X
	Open answers	
	Numericalexercises	

b) Evaluation pattern:

The exam comprises a written and an oral test