

**IV year (1st semester)
A.Y. 2025-2026**

| Scientific Field | PUBLIC HEALTH | TUTOR | ECTS |
|------------------|-----------------------------|-----------------|------|
| MED/42 | General and Applied Hygiene | Ciccacci Fausto | 1 |
| MED/42 | General and Applied Hygiene | Liotta Giuseppe | 3 |
| MED/44 | Occupational Medicine | Magrini Andrea | 2 |
| MED/42 | Applied Economy | Orlando Stefano | 1 |
| | | TOT | 6 |

**LIOTTA G.
COORDINATOR**

SPECIFIC AIMS

The student must acquire knowledge of the basic rules to preserve and promote health of the individual and the community. Knowledge of the rules and practices to maintain and promote health at the workplace, identifying situations of specialist expertise, as well as the knowledge of the main laws that regulates health care and the ability to specify the principles and applications of preventive medicine in local communities.

The student must know the relationships between microorganisms and the host in human infections and their related mechanisms of defense.

In conclusion, the student must acquire the skills to apply medical decisions, the essential principles of health economics with specific regard to cost / benefit balance of the diagnostic and therapeutic procedures.

PROGRAM

- Global vs Partial Economic Evaluation.
- Methods for Economic Evaluation:
 - Cost – effectiveness analysis;
 - Costs minimization : Cost -Utility analysis;
 - Cost – Benefit analysis.

APPLIED ECONOMY

- Health Technology Assessment.
- Cost analysis in economic evaluation.

PROGRAM

Health promotion , lifestyle behavior, eco-social approach
Prevention in all ages of life
Primary prevention, Vaccines, health promotion
Secondary prevention, Screening
Tertiary prevention, frailty, conceptualization, methods of evaluation, interventions
Epidemiology – epidemiological studies

**GENERAL AND APPLIED
HYGIENE**

PROGRAM

- Introduction to Occupational Medicine.
- Assessment of cause-effect relationship in occupational diseases.
- Classification of most frequent diseases related to chemicals, physical and biological agents in occupational setting

OCCUPATIONAL MEDICINE

- Occupational diseases and occupational accidents.
- Prevention measures in occupational medicine.
- Main analytical tools for risk assessment in occupational medicine: hazard, exposure, susceptibility, environmental and biological monitoring, health surveillance, interpretation of occupational exposure limits.
- Occupational toxicology: toxicokinetics, toxicodynamics, dose-effect relationship.
- Specific chemicals involved in occupational disease: metals and solvents.
- Specific physical agents involved in occupational diseases: noise and vibration.
- Specific biological agents involved in occupational disease: virus hepatitis, tbc.
- Occupational disorders related to new occupational risk factors: nanoparticles and engineered nano materials.

TEXTBOOKS

- Oxford Handbook of Public Health Practice, 3rd Edition, 2013

- Drummond M.F, O'Brien B., Stoddart G.L., Torrance G.W.: Methods for the Economic Evaluation of Health Care Programmes, Oxford University Press, last edition.

EXAM METHOD

Written and oral exam.

EXAM COMMISSION

The Coordinator, full Professors of the disciplines, Professors of similar disciplines, Specialists of the subject, compose the exam Commission of the Integrated Course.

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| Liotta Giuseppe, President |
| Franco Elisabetta |
| Pietrojusti Antonio |
| Orlando Stefano |

CONTACTS

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|---------------------|-----------------------------|------------|
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PREREQUISITES: Previous knowledge and competence in the following subjects:

Physics and Statistics, Chemistry and Introductory Biochemistry, Biology and Genetics, Immunology and Immunopathology, Microbiology, Human Sciences.

The specific learning outcomes of the program are coherent with the general provisions of the Bologna Process and the specific provisions of EC Directive 2005/36/EC. They lie within the European Qualifications Framework (Dublin Descriptors) as follows:

1. **Knowledge and Understanding**

- Identify synthesis and criticise basic rules of the society where we live.
- Have an idea of basic epidemiology and apply it in a practical setting.
- Understand the regulations of a health society and apply to his/her normal future medical activities.
- Understand the sociological perspective on the experience of health and illness and of the evolution and functioning of medical institutions.
- Describe the main principles of Hygiene and the fundamental role of preventive medicine for the maintenance of a favourable environment.
- Comprehend the necessary skills to be able to analyse public health problems.

2. **Applying Knowledge and Understanding**

- Apply the methods needed to control environmental and communicable hazards.
- Apply the principles involved in the design and conduct of health promotion programmes.
- Apply the rules involved in the management of health service organizations and in planning the future development of health services.
- Apply the principles involved in the economic assessment of health and of services for its protection and restoration.

3. **Making Judgements**

- Recognize the importance of an in-depth knowledge of the topics consistent with a proper medical education.
- Identify the benefits and adverse effects of any diagnostic and therapeutic interventions.
- Identify the fundamental role of a proper theoretical knowledge of the subject in the clinical practice.

4. **Communication Skills**

- Present the topics orally in an organized and consistent manner.
- Use of proper scientific language coherent with the topic of discussion.

5. **Learning Skills**

- Identify the possible use of the acknowledged skills in the future career.
- Assess the importance of the acquired knowledge in the overall medical education process.