



UNIVERSITY OF L'AQUILA



**Department of Health, Life
and Environmental Sciences**

2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION

Laurea Magistrale in SCIENZE DELLE PROFESSIONI SANITARIE DELLA PREVENZIONE

Course Catalogue

Academic year starts the last week of September and ends the first week of June.

1st Semester - *Starting date:* last week of September, *end date:* 3rd week of January

2nd Semester - *Starting date:* last week of February, *end date:* 1st week of June

Exams Sessions: I) from last week of January to 3rd week of February, II) from 2nd week of June to end of July, III) from 1st to 3rd week of September

**Comprehensive Scheme of the 2nd Cycle Degree in
SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION**

YE AR	CO DE	COURSE	Credits (ECTS)	Semest er
I	D482 0	BASIC SCIENCES: 1. Clinical Biochemistry (3 ECTS) 2. Applied Physics (3 ECTS) 3. Biostatistics (3 ECTS) 4. Medical Informatics (3 ECTS)	12	1
	D436 8	SCIENCES OF HEALTH CARE I: 1. Hygiene (3 ECTS) 2. Medical Sciences and Applied Techniques (3 ECTS) 3. Occupational Medicine (3 ECTS)	9	1
	D398 0	HEALTHCARE ECONOMICS AND ORGANIZATION: 1. Business Administration Health (3 ECTS) 2. Management (3 ECTS) 3. Business Organization (3 ECTS)	9	2
	D436 9	SCIENCES OF HEALTH CARE II: 1. Hygiene Applied to Health Services (3 ECTS) 2. Inspection of Food of Animal Origin (3 ECTS) 3. Prevention in Occupational Medicine (3 ECTS)	9	2
	D481 9	SCIENCES OF PREVENTION IN THE ENVIRONMENT AND IN THE WORKPLACE: 1. Environmental Toxicology (3 ECTS) 2. Environmental Chemistry (3 ECTS)	6	2
	D363 8	WORK PLACEMENT 1	15	2
II	D186 8	SCIENCES OF PREVENTION AND HEALTHCARE SERVICES: 1. Forensic Medicine (3 ECTS) 2. Hygiene and Epidemiology (3 ECTS) 3. Disease Prevention in the Workplace (6 ECTS)	12	1
	D481 7	WORK-RELATED DISEASES: 1. Prevention Management in the Workplace (3 ECTS) 2. Cardiovascular Diseases (3 ECTS)	6	1
	D481 4	ANTHROPOLOGICAL, PEDAGOGICAL AND PSYCHOLOGICAL DIMENSIONS: 1. Sociology of Culture and Communication Processes (3 ECTS) 2. Sociology (4 ECTS)	7	2
	D364 0	WORK PLACEMENT 2	15	2
I or II	D295 0	<i>Other activities/courses:</i> ✓ Further Language courses (2 ECTS) ✓ Further training (5 ECTS)	7	2
	D407 9	<i>Optional free choice courses</i>	6	2
II	D205	Thesis	7	2

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**Programme of “SCIENZE DI BASE”
“BASIC SCIENCES”**

This course is composed of four Modules:

1) Clinical Biochemistry 2) Applied Physics , 3) Biostatistics, 4) Medical Informatics.

Number of ECTS credits: 12 (total workload is 300 hours; 1 credit = 25 hours)

D4820, Compulsory

**2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 1st year,
1st semester**

Teachers: **Assunta ORECCHIONI; Silvia COLACICCHI ; Cinzia LEUTER; Pierpaolo VITTORINI .**

1	Course objectives and Learning outcomes	<p>The objective of this course is to facilitate the understanding of the basic sciences for prevention and management of health services for prevention.</p> <p>In particular, the specific objectives are:</p> <ul style="list-style-type: none"> - to the understand of biostatistics for application to health care and for health services delivery; - to understand the physical characteristics of the potential health risks; - to understand the chemical characteristics of the potential health risks and their impact on complex biological systems; - to enable learners to develop simple relational databases.
2	Course contents	<p>This course is composed of four modules:</p> <p>1) CLINICAL BIOCHEMISTRY (3 CFU) Teacher: Assunta Orecchioni;</p> <p>2) APPLIED PHYSICS (3 CFU) Teacher: Silvia Colacicchi ;</p> <p>3) BIOSTATISTICS (3 CFU) Teacher: Cinzia Leuter ;</p> <p>4) MEDICAL INFORMATICS (3 CFU) Teacher: Pierpaolo Vittorini .</p> <p>The main topics are:</p> <ul style="list-style-type: none"> - Physical characteristics of the potential health risks - Chemical characteristics of the potential health risks - Descriptive statistics. Probability. Probability distribution. Statistical inference. Testing of hypothesis. Confidence intervals. Overview of statistical tests. Linear regression and correlation - Conceptual modelling of databases; Logical modelling of databases; Queries on relational databases <p>At the end of the course the student should</p> <ul style="list-style-type: none"> o Understand the basic of probability theory. o Understand and explain the most commonly used continuous probability distributions. o Be able to construct confidence intervals for population means and variance. o Explain and apply basic biostatistical methods to a variety of estimation and hypothesis testing situations. o Appreciate problems involved in data collection and management. o Know when and how to apply basic biostatistical methods o Develop strategies to use specific statistical tests. o Participate in drawing conclusion from data and in the presentation and writing of reports and papers. o Develop relational databases. o Be able to interpret research data and provide correct information on the study results. o Interpret and draw conclusion from the results of hypothesis testing

		o understand problems and then appropriately use data analysis
3	Prerequisites and learning activities	No prerequisites except that the student must know basic statistical concepts and techniques
4	Teaching methods and language	Lectures, team work, exercises, home work Language: Italian Ref. Text books : -Vittorini P. , <i>L'informatica per la medicina e la sanità pubblica</i> . 2009. Edizioni L'Una.
5	Assessment methods	Written, oral exam and development of a simple database by following the methodology presented during the course

Programme of “SCIENZE DELL’ASSISTENZA SANITARIA I” “SCIENCES OF HEALTH CARE I”		
This course is composed of three Modules: 1) Hygiene 2) Medical Sciences and Applied Techniques, 3) Occupational Medicine.		
Number of ECTS credits: 9 (total workload is 225 hours; 1 credit = 25 hours)		
D4368, Compulsory 2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 1st year, 1st semester		
Teachers: Sergio TIBERTI; Carlo ZAMPONI; Antonio PAOLETTI		
1	Course objectives and Learning outcomes	The objective of this course is to facilitate the understanding of the principles of prevention in the workplace, approaches to risk assessment, the main preventive interventions (technical, organizational, health, etc.) and security personnel, the risks to the health and safety-related work in a biomedical laboratory and their consequences (occupational diseases or work-related injuries).
2	Course contents	This course is composed of three modules: 1) HYGIENE (3 CFU) Teacher: Sergio Tiberti; 2) MEDICAL SCIENCES AND APPLIED TECHNIQUES (3 CFU) Teacher: Carlo Zamponi; 3) OCCUPATIONAL MEDICINE (3 CFU) Teacher: Antonio Paoletti. The main topics are: Module 1) - Hygiene: definition and purposes. - Epidemiology: Sources of statistical-epidemiological data, Methods and measures in epidemiology, Epidemiological measures of risk. - Epidemiological studies: ecological, cross-sectional, case-control, cohort studies. - General epidemiology and prevention of infectious diseases: infection sources and diagnostic assessment, disinfection, asepsis, antisepsis. - Means and strategies of prevention. - Epidemiology and prevention of main viral infections. - Epidemiology and prevention of chronic-degenerate pathologies. - Elements of organization and sanitary legislation. Module 2) and 3) - Risks to the health and safety of workers at work; - Risks in biomedical laboratory: risk of accidents, chemical, physical (excluding ionizing radiation), biological, ergonomic and organizational factors; - Accidents at work, occupational diseases and "work-related" illnesses; - Risk assessment ;

		<ul style="list-style-type: none"> - Primary prevention: technical, organizational and procedural interventions; - Information and training in risk management ; - Biological monitoring; - Health surveillance; - Legislation to protect the health and safety of workers; - Subjects of prevention in the workplace ; - Rights and obligations of the employee ; - Institutions responsible for the protection and safety at the workplace. <p>On successful completion of this course the student should</p> <ul style="list-style-type: none"> o Acquire general concepts of hygiene and preventive medicine for prevention and promotion of health through the study of molecular epidemiology of transmittable diseases and chronic degenerative diseases. o Identify factors influencing personal hygiene and describe nursing interventions . o Describe strategies of prevention of infections and methods of disinfection. o Know the harmful effects of selected important environmental and workplace hazards on human health, o Be able to recognize and assess hazards and risks at the workplace, o Understand and explain principles of toxicology, o Be able to apply principles of human toxicology to interpret workplace exposures to chemicals and their potential health effects, o Recognize work-related and occupational disorders and diseases, o Recognize risks and recommend corrective and preventive action, o Explain principles of exposure assessment for physical and ergonomic hazards and be able to apply principles of ergonomic workplace design, o Explain biological workplace hazards and estimate risk for specific occupations, o Know and understand the practical assessment tools, o be able to interpret the assessment findings and develop practical solutions for the company, o Describe methods for risk reduction & control for chemical, physical, biological and ergonomic hazards, o Formulate preventive action programs and apply these methods at workplaces, o Be able to detect occupational and environmental exposures and health effects by taking an occupational history, interpret the results and develop investigative questions for practice.
3	Prerequisites and learning activities	The student must know the basic notions of prevention measures in occupational medicine, risk assessment, laws involved in risk assessment
4	Teaching methods and language	Lectures, team work, exercises, home work Language: Italian Ref. Text books : -Teacher's Notes. Further teaching materials will be delivered by the teachers during classes.
5	Assessment methods	Written, oral exam and development of a simple database by following the methodology presented during the course

"HEALTH ECONOMICS AND HEALTH ORGANIZATION"

This course is composed of three Modules:

1) Business Economics, 2) Business Organisation, 3) Healthcare Services Management

Number of ECTS credits: 9 (total workload is 225 hours; 1 credit = 25 hours)

D3980, Compulsory

2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 1st year, 2nd semester

Teachers: **Lorena LATTANZI; Marco RECCHIONI**

1	Course objectives	The objective of this course is provide the students with the necessary knowledge and competence for about the field relating to leadership, management and administration of public health systems, health care systems, hospitals and hospital networks
2	Course content and Learning outcomes (Dublin descriptors)	<p>This course is composed of three modules: 1) BUSINESS ECONOMICS (3 CFU) Teacher: Lorena Lattanzi; 2) BUSINESS ORGANIZATION (3 CFU) Teacher: Marco Recchioni; 3) HEALTHCARE SERVICES MANAGEMENT (3 CFU) Teacher: Marco Recchioni.</p> <p>Topics of the Course include:</p> <p>Module 1)</p> <ul style="list-style-type: none">- Organization and management in health care organizations,- The departmentalization in health care organizations,- Economic measures in the public health-care and Communication strategies,- The process of "corporatization" of the national health system and the impact on information systems, The corporate strategies,- The system of general and analytical accounting.- The balance sheet in health care organizations: function and patterns of preparation- The budget in health care organization.- The financing system and the logic programming in health, <p>Module 2)</p> <ul style="list-style-type: none">- Company Organization Systems: theories and practices of services management and organization, focused on the health care sector,- Organization theories: policy and politics perspectives of health care's three persistent issues: access, cost and quality;- Organization models: analysis of healthcare professionalism model, focused on managerial competence (an overview of the business of health and how a variety of health care organizations have gained, sustained, and lost competitive advantage amidst intense competition, widespread regulation, high interdependence, and massive technological, economic, social and political changes),- Evaluation of the challenges that health care organizations are facing, through competitive analysis (identification of their past responses and exploration of the current strategies they are using to manage these, and emerging ones challenges, more effectively), <p>Module 3)</p> <ul style="list-style-type: none">- Quality management: improving access to care and health insurance exchanges, enhancing quality and constraining costs through health care delivery system reforms,- Financial planning and control: realigning capacity through changes in the health care workforce and in medical education, the potential impact on biomedical and other innovations, and the impact on economic outcomes such as employment, wage growth, and national budget deficits,

		<ul style="list-style-type: none"> - Healthcare professionalism models in the private sector, - The Evolution of Institutional Health Care System in the Italian economic-business perspective : the three reforms, - The right to health and the public health service : the basics and approaches to study, - Health care organizations as "public companies for the production of health care services". <p>On successful completion of this module, the students should have knowledge and understanding of the functioning of the Institutional Health Care System in the Italian economic-business. They should</p> <ul style="list-style-type: none"> o have profound knowledge of the Italian Healthcare system; o have knowledge and understanding of the concepts, institutions, and issues specifically involved in the organization, financing and delivery of health services and products; o be able to explain the structure of health care systems in Europe, focusing on financing, reimbursement, delivery systems and adoption of new technologies; o demonstrate ability to critically examine the relative roles of private sector and public sector insurance and providers, and the effect of system design on cost, quality, efficiency and equity of medical services, o be able to apply economics to an analysis of the health care industry, o develop generalized skills in competitive analysis and the ability to apply those skills in the specialized analysis of opportunities in producer (e.g. biopharmaceutical, medical product, information technology) and provider (e.g. hospitals, nursing homes, physician) organizations and industry sectors, o acquire skills for critical and analytical thought about the national health care system and its organization, o be able to explore the effects of the changing health care environment on the physician, patient and health care manager, o have profound knowledge of healthcare services delivering systems; o have profound knowledge of entrepreneurship principles, o develop a good understanding of core financial accounting and control principles e.g. double entry accounting, accruals, prepayments, liabilities, assets, duty segregation and the need for solid controls, o gain competence in reading and understanding financial statements and develop a robust understanding of the work of management accounting, incorporating budget preparation, budget appraisal, costing, and financial appraisal techniques, o gain competence in the critical analysis of strategic plans. o understand how the concept of quality has evolved over time and how it can be measured and evaluated in the context of healthcare, o understand the legislative and socioeconomic frameworks within which quality accreditation operates in the Italian healthcare sector, o understand core medical ethical principles and appreciate how they inform the key ethical questions relevant to healthcare.
3	Prerequisites and learning activities	The module is not connected with previous learning and it doesn't foresee work placement
4	Teaching methods and language	Lectures, Exercises: preparing processed through the analysis of specific projects. Language: Italian Ref. Text books: -A. Zangrandi, <i>Economia e management per le professioni</i>

		<i>sanitarie</i> , Mc Graw Hill, 2011. -P.O. Achard, V. Castello, S., <i>Profili Il governo del processo strategico nelle aziende sanitarie</i> , Franco Angeli, 2003.
5	Assessment methods and criteria	Text and oral exam

Programme of “SCIENZE DELL’ASSISTENZA SANITARIA II” “SCIENCES OF HEALTH CARE II”		
This course is composed of three Modules: 1) Hygiene Applied to Health Services 2) Inspection of Food of Animal Origin, 3) Prevention in Occupational Medicine.		
Number of ECTS credits: 9 (total workload is 225 hours; 1 credit = 25 hours)		
D4369, Compulsory 2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 1st year, 2nd semester		
Teachers: Leila FABIANI; Francesca DE PAULIS; Loreta TOBIA		
1	Course objectives and Learning outcomes	The goal of this course is to provide global information about the organization of prevention activities in the National Health Services. Emphasis will be given to prevention of professional diseases, Food safety inspection, European and Italian laws related to occupational medicine and safety in several contexts. On successful completion of this Course, the student should acquire knowledge and understanding of safety and health management: foodborne diseases and threats, work related diseases, work accident, main Italian and European authorities and laws, role and responsibilities of employers, occupational physicians, work representatives, food producers, healthcare services providers.
2	Course contents	This course is composed of three modules: 1) HYGIENE APPLIED TO HEALTH SERVICES (3 CFU) Teacher: Leila Fabiani; 2) INSPECTION OF FOOD OF ANIMAL ORIGIN (3 CFU) Teacher: Francesca De Paulis; 3) PREVENTION IN OCCUPATIONAL MEDICINE (3 CFU) Teacher: Loreta Tobia. Topics of the Course include: Module 1) - <u>Health context:</u> The National Health Service and the Department of prevention: Organization, aims, functions. - <u>Hygiene and Safety in health services:</u> Health protection, risk assessment, risk management, clinical governance; - <u>Environmental management and Regional Agencies of Environmental Protection:</u> Relationships and interfaces with technical institutions for the protection of the environment. Module 2) - <u>Food Safety:</u> Foodborne diseases and threats to food safety with special focus on food of animal origin. Methods and tools for ensuring safety of products of animal origin from primary production to the consumer, European and Italian laws, EFSA. Module 3) - <u>Occupational physician:</u> - General definitions, tasks, responsibility; risk and hazard at work, personnel protective equipment, safety and health risk, employer, responsible for prevention service, workers representative duties, institutions of control.

		<ul style="list-style-type: none"> - <u>Management of occupational physician tasks</u>: Risk assessment, health surveillance of workers, training courses of workers, first aid organization, inspection at work . - <u>Health surveillance at work and promotion measures</u> : assessment and management of fitness for work, control of drug of abuse and alcohol. - <u>Management of risk at work</u>: chemical agents, physical agents (ionizing and non ionizing radiations), biological agents, stress at work, shift work). <p>On successful completion of this module, the student should:</p> <ul style="list-style-type: none"> o Know and understand the physical, chemical and biological hazards (electromagnetic fields, non-ionizing and ionizing radiation, dust, fumes aerosols and vapors) in healthcare services providing, o Understand and explain principles of measurement and control of hazardous substances, o Be able to design preventive actions for risk reduction of chemical, biological and physical hazards, o Demonstrate capacity to evaluate and manage risk in sanitary field, o Describe methods of risk control and industrial hygiene surveillance, o Know the role and tasks of actors in risks prevention at work (employer, occupational physician, responsible for prevention service, workers representative); o Have a good knowledge of organization and functioning of preventive services in the National Health Service; o Know and understand how the prevention activities can be planned for an integrated management of safety and health at work; o Have a better knowledge about the main health hazards associated with the consumption of food of animal origin, o Better understand the risk analysis and HACCP principles and how they can support decision making, o Be aware of international regulation concerning the safety of food and related trade issues, o Demonstrate enhanced capability for the application of intervention strategies and risk mitigation tools to ensure an effective control of the main risks for public health.
3	Prerequisites and learning activities	Sufficient knowledge of Hygiene is needed as a prerequisite: the student must know the basic notions of prevention measures in occupational medicine, risk assessment, laws involved in risk assessment
4	Teaching methods and language	Slides and exercises. Language: Italian / English Ref. Text books: -Campurra G., <i>Manuale di Medicina del lavoro 2013</i> , IPSOA 2013; D Lgs 81/08; D Lgs 230/95 and its amendments and addictions. -Tiecco G., <i>Ispezione degli alimenti di origine animale</i> , Edagricole, Bologna 2000.
5	Assessment methods	Written and oral exam.

Programme of “SCIENZE DELLA PREVENZIONE NELL’AMBIENTE E NEI LUOGHI DI LAVORO”

“SCIENCES OF PREVENTION IN THE ENVIRONMENT AND IN THE WORKPLACE”

This course is composed of two Modules: 1) Environmental Chemistry 2) Environmental Toxicology.

Number of ECTS credits: 6 (total workload is 150 hours; 1 credit = 25 hours)

D4819, Compulsory

2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 1st year , 2nd semester

Teacher: **Gabriella FONTECCHIO**

1	Course objectives and Learning outcomes	<p>The Course provides the students with broad and strong knowledge base for solving problems related to the effects of toxic and contaminant chemicals on health and environment.</p> <p>The Module “Environmental Chemistry” will give an overview of important chemistries of the earth, water and air with the purpose to enable the students to understand and appreciate the environmental chemical processes and their complexities. Special focus will be given to the reactions that occur naturally in order to evaluate impacts on ecosystems from human activity. The Module “Environmental Toxicology” focuses on the effects of toxic chemicals on health and the environment. The students will know and understand the toxic effects of organic and inorganic contaminants on molecular, cell, organism, population and ecosystem level and they will be able to explain the major concepts of human health risk assessment.</p>
2	Course contents	<p>This course is composed of two modules: 1) ENVIRONMENTAL CHEMISTRY (3 CFU) Teacher: Gabriella Fontecchio; 2) ENVIRONMENTAL TOXICOLOGY (3 CFU) Teacher: Gabriella Fontecchio;</p> <p>Topics of the course include:</p> <p><u>Module 1)</u></p> <ul style="list-style-type: none">- Basic principles of inorganic and organic chemistry. Classification of inorganic and organic pollutants. How contaminants entry into the environment, their movement, storage and transformation. The ways that natural systems are perturbed by human actions on local and global scales, such as energy use (also radioactivity), agriculture, and industry. Industrial wastes, toxic gases and PBT (Persistent Bioaccumulative and Toxic agents), their fate in atmosphere, soil, water and sediments. Sources, effects and remediation pollution. Green chemistry, solid waste management and recycling options, biodegradability of materials. Common procedures for analyzing water air and soil samples (especially HPLC and RP-HPLC methods with UV/Vis and fluorescence detection). Water quality standards, guidance for environmental protections measures and environmental quality guidelines. <p><u>Module 2)</u></p> <ul style="list-style-type: none">- The fate of pollutants through food chains and their chemical transformation and biotransformation. Biomagnification. Toxicants in foods. The effects of contaminants upon ecosystems, populations and living organisms at different organizational levels (molecular, cellular and whole organism). Xenobiotics related diseases. Biochemical and physiological effects, defenses responses to xenobiotics. Environmental toxicity tests. Human genetic toxicology: environmental mutagenesis, carcinogenesis and teratogenesis. <i>In vitro</i> and <i>in vivo</i> toxicity/genotoxicity assays. Biomonitoring and biomarkers of toxic chemicals exposure. Exposure and risk assessment with focus on the workplace.

		<p>On successful completion of this course, the student should :</p> <ul style="list-style-type: none"> 0 have profound knowledge of topics related to chemical effects in the natural environment, 0 have knowledge and understanding of chemical equilibrium and kinetics of natural systems and how they are influenced by human actions, 0 understand and explain the problems associated with indiscriminative use of chemicals worldwide, 0 demonstrate skill in explaining the connections between chemical cycles and human activities and ability to describe how an ecosystem is altered by anthropogenic influences to discuss chemical and biological processes that one can use to manage industrial pollution, 0 apply basic theories and methods of chemistry to study the environmental issues caused by pollutants, 0 analyse the interaction of chemicals with plants and animals (including humans) in the environment, 0 evaluate the relationships between chemistry and biology, 0 have profound knowledge of the harmful effects of chemicals upon human beings animals and plants, 0 have knowledge and understanding of how people interact with their environment and how the environment may positively or negatively affect human health, 0 understand and explain the problems associated with indiscriminative use of chemicals worldwide, 0 demonstrate skill in explaining how toxicants get into the environment and which diseases may be associated with them, and ability to identify a variety of chemicals by class and the damage process, actions and metabolism of xenobiotics, 0 apply the major concepts of human health risk assessment, 0 analyse the nature and causes of various toxicant-induced diseases, 0 assess and evaluate genetic and physiologic factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards, 0 demonstrate capacity for reading and understanding other texts on related topics
3	Prerequisites and learning activities	Student should know basic concepts in biology and chemistry
4	Teaching methods and language	<p>Lectures in classroom</p> <p>Language: Italian</p> <p>Ref. Text books:</p> <p>-C. Baird-M. Cann, <i>Chimica Ambientale</i>, Zanichelli, 2006.</p> <p>-C.L. Galli-E. Corsini-M. Marinovich, <i>Tossicologia</i>, Piccin-Nuova Libreria, II Ed., 2008</p>
5	Assessment methods	Oral exam (with power point presentation) and Library Research paper

**Programme of “MALATTIE LAVORO-CORRELATE”
“WORK-RELATED DISEASES”**

This course is composed of two Modules: 1) Prevention Management in the workplaces 2) Cardiovascular diseases.

Number of ECTS credits: 6 (workload is 150 hours; 1 credit = 25 hours)

**D4817, Compulsory
2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 2nd year,
1st semester**

Teachers: **Carlo Zamponi, Silvio ROMANO**

1	Course objectives and Learning outcomes	<p>The goal of this course is to provide the knowledge of the management of risk factors for the main work-related diseases and for diseases related to environmental factors.</p> <p>On successful completion of this module, the student should understand the influence of environmental factors on the health of workers, particularly in connection with cardiac risk profile and work-related stress, and consequently plan adequate prevention strategies</p>
2	Course contents	<p>This course is composed of two modules: 1) PREVENTION MANAGEMENT IN THE WORKPLACE (3 CFU) Teacher: Carlo Zamponi; 2) CARDIOVASCULAR DISEASES (3 CFU) Teacher: Silvio Romano;</p> <p>Topics of the course include:</p> <p>Module 1)</p> <ul style="list-style-type: none"> - Risk factors for work-related disease, particularly for cardiovascular diseases and psychological stress; - Description of the different models of prevention strategies in the work-related disease (particularly work-related stress and cardiovascular field); - Organization of prevention, expenditure of human and material resources in prevention of work-related diseases. <p>Module 2)</p> <ul style="list-style-type: none"> - The main cardiovascular diseases: prevention and monitoring, - Cardiovascular health promotion: diet, physical activity, blood pressure control, stress reduction, - Assessing and managing cardiovascular risk in people with risk factors who have not yet developed clinically manifest cardiovascular disease. <p>On successful completion of this module, the student should</p> <ul style="list-style-type: none"> o have profound knowledge of risk factors for cardiovascular diseases and work-related stress, o have knowledge and understanding of the different models of cardiovascular and work-related stress prevention, o understand and explain the applicability of different models of cardiovascular and work-related stress prevention in various settings, o understand the advantages and costs of a prevention program o demonstrate skill and ability in the evaluation of human and material resources, required for a cardiovascular and work-related stress prevention programs, o detect occupational and environmental exposures and health effects by taking an occupational history, interpret the results and develop investigative questions for practice, o demonstrate capacity to plan an adequate prevention program adapted to various settings, o conduct medical surveillance and workplace selection in an evidence-based and ethical manner.
3	Prerequisites and learning activities	The student must know the notions about major diseases.
4	Teaching methods and language	Lectures, home work. Language: Italian Ref. Text books: -Linee guida sulla prevenzione cardiovascolare: www.sicardiologia.it ; www.escardio.org . -Teaching Materials are provided by the teachers during the classes.
5	Assessment methods	Written and oral exam

Programme of “SCIENZE DELLA PREVENZIONE E DEI SERVIZI SANITARI” “SCIENCE OF PREVENTION AND HEALTH SERVICES”	
This course is composed of three Modules: 1) Forensic Medicine, 2) Hygiene and Epidemiology, 3) Disease prevention in the workplace.	
Number of ECTS credits: 12 (workload is 300 hours; 1 credit = 25 hours)	
D1868, Compulsory 2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 2nd year , 1st semester	
Teachers: Mario ANACLERIO, Stefano NECOZIONE, Loreta TOBIA	
1	Course objectives and Learning outcomes The goals of this course are to provide the students with: <ul style="list-style-type: none"> - knowledge of prevention of professional diseases, European and Italian laws related to occupational medicine, - Understanding of methodological epidemiology tools functional to the Organisation and Management of Health Care and Health Care Programmes from a Public Health Perspective. Furthermore the course addresses those aspects of forensic medicine and science which are most frequently the subject of expert testimony in the courts. Thus the student, once successfully completed the course, will be able to use epidemiological methods for the identification and assessment of public health problems and for planning appropriate public health interventions, to promote and manage safety and health at work and to acquire core knowledge and intellectual skills in forensic medicine.
2	Course contents This course is composed of three modules: 1) FORENSIC MEDICINE (3 CFU) Teacher: Mario Anaclerio; 2) HYGIENE AND EPIDEMIOLOGY (3 CFU) Teacher: Stefano Necozone; 3) DISEASE PREVENTION IN THE WORKPLACE (6 ECTS) Teacher: Loreta Tobia; The main topics are: Module 1) <ul style="list-style-type: none"> - The forensic medicine as a meeting point between medicine and law. Causation. - Nods of thanatology and pathology. The death's ascertainment. - Basics of bioethics and professional ethic. Informed consent. The professional secret and the privacy. The report. Failure to assistance. - The professional liability within the sanitary activities. - The sanitary documentation, legal nature, connected crimes; Risk management. - Nods of criminal law: imputability and liability. The crimes: concept, classification of the crimes and the constitutive elements. The bodily harm. - Nods of civil law: civil capacity and evaluation of the damage. Module 2) <ul style="list-style-type: none"> - Epidemiology, Evidence-Based-Medicine, Clinical Governance - Measuring disease occurrence and casual effects - Types of Epidemiologic Study - Biases in study design - Systematic review and meta-analysis - Methods for the economic evaluation of health care programmes: Cost-effectiveness analysis, Cost-utility analysis, Cost-benefit analysis

		<p>Module 3)</p> <ul style="list-style-type: none"> - General definitions: occupational physician: tasks, responsibility; risk and hazard at work, personnel protective equipment, safety and health risk, employer, responsible for prevention service, workers representative duties, institutions of control. - Management of occupational physician tasks: Risk assessment, risk management of health surveillance of workers, training courses of workers, first aid organization, inspection at work - Health surveillance at work and promotion measures : assessment and management of fitness for work, control of drug of abuse and alcohol. - Management of risk at work: chemical agents, physical agents (Noise, mechanical vibrations, manual handling, repetitive strain injuries), organizing agents (VDT), pregnancy at work, ageing worker, disability due to work, disability support. <p>On successful completion of this module, the student should:</p> <ul style="list-style-type: none"> o Have a knowledge and understanding of forensic medicine principles, concepts and terminology, o Have an understanding of related applications of forensic science, o Be able to apply their knowledge and skills to accurately observe and document medico-legal findings, o Be able to develop and critique medico-legal opinions based upon current literature. o Have profound knowledge of main figure of prevention at work (employer, occupational physician, responsible for prevention service, workers representative), o Know and understand management strategies for risk prevention at work, o Demonstrate ability to describe and explain how epidemiological methods are used to identify public health problems, to plan and evaluate public health interventions. o Demonstrate ability to do an integrated management of safety and health at work, o Be able to assess and manage risk in sanitary field.
3	Prerequisites and learning activities	The student must know the basic notions of epidemiologic and prevention measures in occupational medicine, risk assessment, laws involved in risk assessment
4	Teaching methods and language	<p>Lectures, team work, exercises, home work</p> <p>Language: Italian</p> <p>Ref. Text books:</p> <ul style="list-style-type: none"> -T. Feola, M. Arcangeli, E. Nardecchia, Appunti di Medicina Legale, Minerva Medica, febbraio 2014. -L. Macchiarelli, P. Arbarello, N.M. Di Luca, T. Feola, Medicina Legale, Minerva Medica 2005. -P. Arbarello, T. Feola, M. Arcangeli, M. Vaccaro, Medicina legale per le professioni sanitarie. Diritto. Deontologia. Legislazione sociale, Minerva Medica 2010 -Norelli G.A., Buccelli C., Fineschi V., Medicina Legale edelle Assicurazioni, Piccin Ed. 2009 -Campurra A., Manuale di Medicina del lavoro ; IPSOA 2012; D Lgs 81/08; D Lgs 230/95 and its amendments and additions. -J.A. Muir Gray, L'Assistenza Sanitaria Basata sulle Prove. Come organizzare le politiche sanitarie, Centro Scientifico Torinese, 2009. -L. Manzoli, P. Villari, A. Boccia, Epidemiologia e Management in Sanità, Edi- Ermes, 2008.
5	Assessment methods	Written, oral exam and development of a simple database by following the methodology presented during the course

**Programme of “DIMENSIONI ANTROPOLOGICHE, PEDAGOGICHE E PSICOLOGICHE”
“ANTHROPOLOGICAL, PEDAGOGICAL AND PSYCHOLOGICAL, DIMENSIONS”**

This course is composed of two Modules: 1) Sociology of Cultural and Communication Processes 2) Sociology

Number of ECTS credits: 6 (workload is 150 hours; 1 credit = 25 hours)

D4814, Compulsory

2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 2nd year, 2st semester

Teachers: **to be hired**

1	<p>Course objectives and Learning outcomes</p>	<p>The course aims to enable the students to reach a knowledge and comprehension of the basic and essential elements of sociology, in order to develop competence and skills in performing sociological analysis of ambience and context, applying communication strategies for prevention and solution of critical situations and indentifying socio-cultural uneasiness.</p> <p>The students will be able to</p> <ul style="list-style-type: none"> - identify and apply appropriate techniques for the individual and group communication and for the management of interpersonal relationships with workers and citizens; - manage working groups and apply appropriate strategies to encourage the process of integration and multi-professional organization; - develop method for independent study and lifelong learning.
2	<p>Course contents</p>	<p>This course is composed of two modules:</p> <p>1) SOCIOLOGY (3 CFU) Teacher: Maria Teresa Gammone;</p> <p>2) SOCIOLOGY OF CULTURAL AND COMMUNICATIVE PROCESS (3 CFU) Teacher: to be hired;</p> <p>Topics of the module include:</p> <p>Module 1)</p> <ul style="list-style-type: none"> - The concept of information - The mathematical theory of information - The analysis of communication in sociology - Interpersonal communication - Mass communication: the history of media and social change, the main schools of thought, theories on the short, medium and long term - The computer-mediated communication <p>Module 2)</p> <ul style="list-style-type: none"> - Communication and society, rules and violence. - From <i>certitudo salutis</i> to health industry. - The social system. - Talcott Parsons and the concept of the sick role in 1951. - The sociologic theory of health. - Risk and safety in clinical medicine - Studies on <i>litigation communication and communication public relations</i>. - From Galileo Galilei to earthquake in L'Aquila: Science and Trials. - Communicating risks. <p>On successful completion of this module, the student should:</p> <ul style="list-style-type: none"> o Know and understand the basic elements of sociology; o Acquire the theoretical and practical knowledge of the meaning of social groups institution;

		<ul style="list-style-type: none"> o Understand and explain the main sociological methodologies; o Know the fundamental characteristics of communication; o Be able to apply communication strategies to prevent situations of conflict between micro or macro groups; o Demonstrate an awareness of the fundamental role of communication in social context; o Be able to critically analyze human behaviour; o demonstrate the ability to analyze context of life from a sociological point of view and do simple sociological research. o Understand the relation of social sciences and health for the construction of the processes of promotion and prevention to health; o Understand and apply methodology for social risks recognition, risk analysis and social variables; o Develop effective communication processes in multidisciplinary and multi-ethnic social contexts; o Know the main sociological theories corresponding to cultural, educational and training systems, and analyze their theoretical and conceptual frames, o Understand and explain the relationship between culture, society and education in different epistemological perspectives, o Be able to interpret the transformations in cultural and educational system in the wider frame of general social changing, o Improve the ability to conceptualize the circular relationship between communication processes and cultural processes, o be able to understand the scientific texts that deal with issues of sociology of communication and social change, with particular reference to the processes that generate collective resentment, o be able to support and discuss clearly, through arguments appropriate, possible proposals to address problems in the social dynamics of varying complexity, with particular reference to the construction of stereotypes.
3	Prerequisites and learning activities	No prerequisites
4	Teaching methods and language	<p>Lectures; exercises, tutorials; home work</p> <p>Language: Italian/English</p> <p>Ref. Text books</p> <p>-Crespi F., <i>Handbook of the sociology of culture</i>, Laterza, Rome-Bari 1996</p> <p>-Sciolla L., <i>Sociology of Cultural Processes</i>, Bologna, Il Mulino, 2002</p> <p>-Other texts will be provided at the beginning of the course.</p>
5	Assessment methods	Written and oral exam

Programme of “TIROCINI I e II” “WORK PLACEMENT I and II”	
Number of ECTS credits: 30 (total workload is 750 hours; 1 credit = 25 hours)	
D3638 WORK PLACEMENT I; D3640 WORK PLACEMENT II, Compulsory 2nd Cycle Degree in SCIENCES OF HEALTH PROFESSIONS FOR PREVENTION, 1st year and 2nd year, 2nd semester	
Teacher: Stefano NECOZIONE	
1	Course objectives and
	The goal of this course is to provide the students with advanced knowledge and skills enabling them 1) to design and implement

	Learning outcomes	<p>innovative models for preventing and managing priority health issues in the community, in the work-place and environmental contexts, 2) to analyze the evolution and changes in healthcare services in order to draw up plans, programs and projects for the organization and development of the healthcare system/services in the workplace and environmental fields, 3) to better understand the psycho-socio-cultural influences on human behaviour, as basis for staff management improving in order to plan, manage and assess care services with a view of services quality enhancement, and 4) to draw up plans, programs and projects concerning the research and training in the workplace ad environmental fields.</p> <p>On successful completion of this module the graduates are able to plan/evaluate and manage the health services in view of cost/benefit ratio in order to improve the well-being of individuals and populations, especially in relation to workplace and environmental settings.</p>
2	Course contents	<p>This course is composed of two modules: 1) PLACEMENT I (15 CFU) 2) PLACEMENT II (15 CFU) Teacher: Stefano Necozone</p> <p>The main topics are: <u>1) Work placement 1 (TEACHER: STEFANO NECOZIONE)</u> Management of human and material resources. Identification and application of professional standards. Defining programs of quality assurance. Defining appropriate care processes. Planning, organization and implementation of training interventions. Planning, programming, and evaluation of the internship. Recognition and assessment of needs in the prevention fields. Supervision of basic prevention care and providing of professional advice.</p> <p><u>2) Work placement 2 (TEACHER: STEFANO NECOZIONE)</u> Design, development and evaluation of research projects. Appropriate use of the research methods and tools in the preventions fields.</p>
3	Prerequisites and learning activities	The student must have the basic notions of prevention activity in workplace and environmental settings
4	Teaching methods and language	<p>Students have a 3/6-months placement in health departments in Italy and/or abroad for on-field working experiences and research activities.</p> <p>Language: Italian. Ref. Text Books: -Teacher's Notes</p>
5	Assessment methods	Written and oral exam, practical tests.