

DEGREE PROGRAMS

The Italian University system has recently changed to conform to the European standard. Most of the Degree Programs provide two kinds of diplomas as follows:

- An Undergraduate Degree named "Diploma di Laurea", awarded after 3 years of study and with the acquisition of 180 European (ECTS) credits;
- A Graduate Degree named "Diploma di Laurea Specialistica" awarded after 5 years of study (including the undergraduate degree), with the comprehensive acquisition of 300 credits.

The School of Medicine is an exception, in fact only one-cycle Graduate degrees Courses, awarded after 6 years of study, are available, besides the 3 years Undergraduate Degree Courses.

UNDERGRADUATE DEGREES

UNDERGRADUATE DEGREE IN BIOMEDICAL LABORATORY TECHNIQUES – LT4

Graduates in Biomedical Laboratory Techniques (GBLT) are health professionals qualified to carry out biomedical and biotechnological analysis as well as research laboratory activities in fields related to biochemistry, microbiology and virology, pharmaco-toxicology, immunology, clinical pathology, haematology, cytology and histopathology.

GBLT are trained to perform independent professional technical work in close cooperation with graduates from the laboratory staff in charge of the various operations required. In laboratory facilities GBLT are responsible for the correct application of analytical procedures, within the tasks entrusted to them by protocols assigned by the managers in charge.

GBLT ensure that the services supplied are in line with the indicators and standards predefined by the facility manager, performing checks and tests to control the equipment, as well as taking care of standard maintenance and correcting minor malfunctions.

GBLT take part in work planning and organisation within the structure in which they are enrolled. GBLT are qualified to work in public and private structures under the regulation of current laws, as employees or freelance; they help in training support staff and directly contribute to updating their professional profile and research work.

UNDERGRADUATE DEGREE IN CARDIOCIRCULATORY PHYSIOPATHOLOGY AND CARDIOVASCULAR PERFUSION - LT8

The aim of the degree is to form professionals for the cardiovascular area. Graduates are able to use instruments related to extracorporeal circulation support and to homodynamic techniques. Under medical supervision, they help medical professionals by using diagnostic or therapeutic instruments. The course duration is three years and required 180 credits (CFU). It features continuous integration of theoretical knowledge and clinical practical application. Attendance in teaching activities and practical/clinical sessions is Mandatory. Degrees are awarded to students who pass the final Examination and present an accepted thesis.

Graduated technicians work in public and private health institutions, in subordinate positions and as professionals. Technicians work in cardiac surgery, cardiology and transplantation departments, and in university or private research laboratories.

UNDERGRADUATE DEGREE IN DENTAL HYGIENE – LK6

The purpose of this three-year degree is to form professionals involved in the prevention of the oral and dental diseases.

Students in Dental Hygiene will acquire a basic knowledge of biology, anatomy, pathology and physiology related to the buccal cavity through theoretical and practical activities.

Graduated Hygienists will work under the supervision of Odontologists or as professionals in private or public hospitals and in universities.

UNDERGRADUATE DEGREE IN MIDWIFERY – LK3

The purpose of this three-year degree is to educate and train midwifery students in Physiopathology of Human Reproduction, Embryology, Pregnancy Delivery and Lactation.

- Theoretical Teaching – seminars: General and Gynaecological Anatomy, Human Physiology and Pathology; Obstetrical and Gynaecological Physiology and Pathology; Elements of Physiology and Pathology of the Puerperium and Breast Feeding.
- Practical Teaching - apprenticeship (2800 hours): Management of Physiological Pregnancy; Management of Physiological and Pathological Vaginal Delivery; Assistance to Obstetrical Surgery; Collaboration with the Physician for the Management of Obstetrical Emergency; Neonatal care; Management of Lactation; PAP-test; Elements of Gynecological Practice.

UNDERGRADUATE DEGREE IN MOTORIAL SCIENCES – LS1

This three years Degree course is intended to form professionals that will project, organize and manage motorial activities especially related to sports, game playing and motorial education.

Students will have a basic knowledge of physiology and physiopathology in order to analyse and assess the human motorial function with a particular focus on groups such as athletes handicapped people and old people.

Graduates will work as Physical Education Teachers or Trainers in public schools as well as in private fitness centres or Sport associations.

UNDERGRADUATE DEGREE IN NURSING – LK2

The aim of this Degree Course is to train professionals that will have technical, relational and educational skills in the prevention, therapy and rehabilitation fields. Graduates will cooperate with the medical personnel in the identification of the assistance needs and in the application of the diagnostic and therapeutic prescriptions.

Nurses will work in public and private hospitals, rest homes, rehabilitation structures in subordinate positions as well as professionals.

UNDERGRADUATE DEGREE IN PHYSIOTHERAPY – LK1

The course provides qualifications in the biological and clinical disciplines that represent the cultural background of the science of rehabilitation, and supplies the abilities requested for an employment as a professional physiotherapist. This result is achieved by defining specific educational objectives that are pursued either by lessons from the chair or by professional education. The study course allows the comprehension of the diseases that will form the object of rehabilitation in children, adults and in the elderly.

A professional physiotherapist should be able to: perform the functional assessment of the patient; define the rehabilitation program; carry on independently the therapeutic activity aimed at overcoming disability; choose the appropriate splints or prostheses; check continuously if the rehabilitation method selected is adequate to the functional recovery expected; carry on scientific research.

UNDERGRADUATE DEGREE IN PROFESSIONAL EDUCATION – LT7

This degree includes lessons, compulsory training, seminars and a final discussion, after passing the practical Examination. The classes cover basic subjects (statistics, informatics, physiology, neurology pharmacotherapy, etc) and specific.

Graduates become health officers that put into practice educational projects for the well-balanced development of a person. They have educational and relational aim of bringing the person back to his everyday life. They treat social and psychological reintegration of people in difficulty through educational interventions to recover and develop higher levels of patient autonomy. They work together with other professional figures in social medical services and rehabilitation facilities.

UNDERGRADUATE DEGREE IN RADIOLOGICAL TECHNIQUES IN MEDICINE – LT5

This is a three-year degree program (180 ECTS) and includes the following courses:

First year: Fundamentals of Mathematics, Physics, Statistics and Informatics; Fundamentals of Chemistry; Anatomy; Fundamentals of Biology and Genetics; Bioethics; History of Medicine; Fundamentals of Physiology; Applied Physics; Radiological Equipment- first year; Musculoskeletal Imaging; Health Management; English- first year

Second year: Fundamentals of General Pathology; Radiological Equipment- second year; Radiobiology; Radiation protection; Cardiovascular Imaging; Gastro-intestinal Imaging; Thoracic Imaging; Contrast Media; Fundamentals of Pharmacology; Fundamentals of Pathology and Medical Oncology; Fundamentals of Internal Medicine and General Surgery; Radiotherapy; Fundamentals of Forensic Medicine and Hygiene; English- second year

Third year: Genitourinary Imaging; Paediatric Imaging; Breast Imaging; Neuro-radiology; Odonto-maxillofacial Radiology; Nuclear Medicine; CT and MR Imaging; Applied Informatics; Fundamentals of Psychology and Sociology; draft of the graduation thesis.

Additionally, a practical training in the departments of Diagnostic Radiology, Radiotherapy, Nuclear Medicine and Medical Physics is foreseen.

GRADUATE DEGREES

GRADUATE DEGREE IN MEDICINE AND SURGERY – L02

This Graduate Degree is intended to provide students with the scientific basic knowledge required for the medical profession as well as with the methodological and cultural basis for life-long updating and the methodological bases for scientific research.

The six-year course – attendance is compulsory – enables Students:

- to acquire the essential theoretical knowledge connected with basic sciences;
- to acquire the ability to assess or objectively evaluate the data relating to the patients' health or disease;
- to communicate with the patient and his/her family clearly and humanely;
- to co-operate with all professionals in the health care team;
- to face and solve health care problems from the point of view of prevention, diagnosis, therapy and rehabilitation.

Students are also required to learn laws and regulations relating to health care, as well as the ethical and historical values of medicine.

The following Post-Graduate Residency Programs are available:

1. Residency Program in Anaesthesia
2. Residency Program in Anatomic Pathology
3. Residency Program in Cardiac Surgery
4. Residency Program in Cardiology
5. Residency Program in Child Neuropsychiatry
6. Residency Program in Clinical Chemistry
7. Residency Program in Clinical Psychology
8. Residency Program in Endocrinology and Metabolism
9. Residency Program in Forensic Medicine
10. Residency Program in Gastroenterology
11. Residency Program in General Surgery
12. Residency Program in Hygiene and Preventative Medicine
13. Residency Program in Infectious Diseases
14. Residency Program in Internal Medicine
15. Residency Program in Medical Genetics
16. Residency Program in Medical Microbiology and Virology
17. Residency Program in Medical Oncology

18. Residency Program in Neurology
19. Residency Program in Neurosurgery
20. Residency Program in Obstetrics and Gynaecology
21. Residency Program in Occupational Medicine
22. Residency Program in Ophthalmology
23. Residency Program in Orthodontics
24. Residency Program in Orthopaedics and Traumatology
25. Residency Program in Otorhinolaryngology
26. Residency Program in Paediatrics
27. Residency Program in Pharmacology
28. Residency Program in Physical and Rehabilitative Medicine
29. Residency Program in Plastic Surgery
30. Residency Program in Psychiatry
31. Residency Program in Radiology
32. Residency Program in Respiratory Diseases
33. Residency Program in Sport Medicine
34. Residency Program in Thoracic Surgery
35. Residency Program in Urology
36. Residency Program in Vascular Surgery

Program Structure

First year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Physics and Statistics	1	8.5
Chemistry	1	7
Histology	1	7
Human Sciences I	1	2
Biology and Genetics	2	11.5
Biochemistry I	2	7
Human Anatomy I	2	8

Second Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Biochemistry II	1	9
Human Anatomy II	1	11

Microbiology I	1	3.5
Microbiology II	2	5.25
Immunology	2	3.5
Physiology	2	10.5

Third Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
General Pathology	1	12.25
Physiology	1	10.5
Physiopathology	2	3.5
Medical Semeiotics	2	5
Surgical Semeiotics	2	5
Medical Pathology I	2	7.75
Surgical Pathology I	2	7.75
Physiopathology of Sensorial Organs	2	4.5
Scientific English	2	2.5
Basic Computer Science	2	3

Fourth Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Medical Pathology II	1	10
Surgical Pathology II	1	10
General Pharmacology I	1	5
Human Sciences II	1	2
General Pharmacology II	2	6
Psychiatry and Clinical Psychology	2	5.25
Laboratory Medicine	2	5.25
Pathological Anatomy I	2	7
Odontostomatology and Dermatology	2	5.25

Fifth Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Pathological Anatomy II	1	8.75
Neurology and Neurosurgery	1	5.25
Radiology	1	6.5
Public Health Medicine I	1	5.25
General Paediatrics	2	7
Obstetrics and Gynaecology	2	8.75
Internal Medicine and Therapeutics I	2	6.5
Surgery I	2	6.5
Public Health Medicine II	2	5.25

Sixth Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Internal Medicine and Therapeutics II	1	8.75
Surgery II	1	8.75
Medical and Surgical Emergencies	1	7.75
Orthopaedics and Traumatology	1	5.25

During the second semester of sixth year, training activities are provided in:

Internal Medicine

General Surgery,

Paediatrics,

Obstetrics and Gynaecology,

Medical and Surgical Emergencies,

Medical Management.

GRADUATE DEGREE IN DENTISTRY – L01

This Graduate Degree is designed to teach scientific fundamentals, and to provide students with vocational training in odontology as well as with the methodological and cultural bases for life-long updating and with the methodological fundamentals for scientific research.

Graduates in Odontology and Dental Prosthesis have:

- the scientific knowledge and the theoretical and practical training required by odontology, and the methodology and culture necessary for life-long updating;
- the knowledge of the methodological fundamentals of scientific research as well as a professional, decisional and operating autonomy acquired through training based on an holistic approach to the problems of odontological care of both healthy and sick people, also in connection with their physical and social environment;
- the essential theoretical knowledge derived from basic sciences, the knowledge of general physiopathologic and clinical medicine;
- the ability to assess and objectively evaluate the conditions of the stomatic-gnathic system of a subject, to interpret the same on the basis of basic scientific knowledge, of physiopathology and of the pathologies of the stomatic-gnathic system and of systemic pathologies, to communicate clearly and humanely with patients and their families, to organise team work as these graduates are also aware of problems relating to communication and management of human resources.

Program Structure

First year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Physics and Statistics	1	8
Chemistry	1	4
Histology	1	2
Basic Computer Science	1	4
English Language	2	6
Biology and Genetics	2	5
Biochemistry	2	4
Human Anatomy I	2	4

Second Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Physiology	1	3
Diagnostics	1	8
Microbiology	1	6
Anaesthesiology and General Pharmacology	2	12
Applied and General Hygiene	2	5

General Psychology	2	4
General Pathology	2	8

Third Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Dental Materials	1	10
Pathological Anatomy	1	5
Otolaryngology	1	3
Gnathology	1	6
Venereal Diseases	1	5
Conservative Odontology I	2	6
General Surgery	2	4
Odonto-Stomatological Diseases	2	10
Forensic Medicine	2	6
Neurology	2	4

Fourth Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Conservative Odontology II	1	6
Dental Prothesis I	1	7
Maxillofacial Surgery I	1	8
Internal Medicine	1	8
Maxillofacial Surgery II	2	10
Dental Prothesis II	2	7
Ortognatodontology I	2	8
Parodontology I	2	8
Paediatric Odontology I	2	8

Fifth Year

<i>Mandatory Subjects</i>	<i>Semester</i>	<i>Credits</i>
Ortognatodontology II	1	6
Parodontology II	1	6
Paediatric Odontology II	1	6
General Paediatrics	2	4
Cardiovascular Diseases	2	7,5
Endocrinology	2	7.5

Web Address: <http://www.med.uninsubria.it>

SYLLABUSES

L02 - Corso di Laurea in Medicina e Chirurgia L02 - Medicine (Graduate Degree)

ECTS Committee member for the School of Medicine

Prof. Antonio Toniolo e-mail: antonio.toniolo@uninsubria.it

1st semester

First week of October 2006 – Last week of January 2007

2nd semester

First week of March 2007 – Last week of June 2007

BIOCHEMISTRY I

- Lecturer: *G. De Luca* (Ph.D., Full Professor)
- Students: 1st year, medical students
- 2nd semester
- Lectures and exercises
- Mandatory for the Medical Degree
- Examination: written and oral
- Credits: 7

This course is designed to provide students with some knowledge of the basic biochemical principles and to enable them to apply these principles to the analysis of common health-related problems. The first part of the course (biochemistry I) is devoted to the structure and functions of bio molecules; the second part (biochemistry II) explains how various cellular reactions either utilise or produce energy, and shows the pathways by which bio molecules are synthesized and degraded. The last part of the course discusses the main aspects of cell and tissue biochemistry and includes some special topics such as hormones and their key roles in intercellular communication and metabolic regulation.

Recommended textbooks:

- R.K. Murray, D.K. Granner, P.A. Mayes, V.W. Rodwell, *Harper's biochemistry*, Appleton & Lange, 2000.

BIOCHEMISTRY II

- Lecturer: *G. De Luca* (Ph.D., Full Professor)
- Students: 2nd year, medical students

- 1st semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: written and oral
- Credits: 9

See Biochemistry I

BIOLOGY AND GENETICS

- Lecturers:
F. Pasquali (M.D., Full Professor, co-ordinator), General Biology
F. Lo Curto, (M.D., Full Professor), Human Genetics
- Students: 1st year, medical students
- 2nd semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 11.5

This course is focused on the approaches and methodologies used to investigate the main biological phenomena in humans, with particular regard to normal and pathological genetic variability. This course is designed to enable students to understand genetic pathology, the genetic points relevant to human pathology, and all genetic data having an impact on medical practice. Topics include: Mendelian inheritance, general cytogenetics, molecular genetics, gene and chromosome mutations, formal genetics in man, principles of population genetics, genetic polymorphisms in man, monogenic diseases, multifactorial diseases, normal human karyotype, human chromosome abnormalities, mutations and prevention of genetic diseases, mutations and neoplasms.

No Recommended Textbooks

CHEMISTRY

- Lecturer: *A. Passi* (MD, PhD, Associate Professor)
- Students: 1st year, medical students
- 1st semester
- Lectures and stoichiometric demonstrations
- Lectures and practical demonstrations
- Mandatory for the Medical Degree
- Examination: written and oral
- Credits: 7

This course is designed to enable students to understand the fundamentals of inorganic chemistry and organic chemistry and some aspects of structural biochemistry. All issues of medical interest are particularly underlined. Stoichiometry is applied to specific medical problems such as drugs dilutions, pH calculations in physiologic solutions.

Recommended textbooks:

- Hart, Hart and Craine, *Chimica Organica*, Zanichelli ed.
- Dickerson, Geis, *Chimica, Materia e Universo*, Zanichelli ed.

GENERAL PAEDIATRICS

- Lecturers:

L. Nespoli (M.D., Full Professor, co-ordinator) General Paediatrics

U. Balottin (M.D., Full Professor) Child Neuropsychiatry

- Students: 5th year, medical students
- 2nd semester
- Lectures and clinical round
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 7

The course on General Paediatrics is designed to train students to understand the physiopathological basis of paediatric diseases. Students are also required to learn to evaluate the major developmental steps in infants and children, to draw a meaningful clinical history, to conduct a clinical Examination of infants and children, to understand the most relevant variations of the respiratory, cardiovascular, haematological, digestive and neurological systems at different paediatric ages. At the end of the course, students will learn how to recognise ill children needing a prompt intervention and children who may be safely treated at home or on a day hospital basis. Discussion shall be focused on peripheral blood slides, urinalysis, acid-base nomograms, fluid and electrolyte requirements. Methods for treating children with diarrhoea or vomiting will be presented. Differential diagnosis of chronic disorders (leukaemia, rheumatoid arthritis, autoimmune diseases) is presented in the context of clinical cases. Basic treatment for most common disorders is discussed together with immunologic and drug-based prophylactic measures.

The course on Child Neuropsychiatry reviews the basic principles of neuropsychic health and illness in children and adolescents. The second part of the course is devoted to the analysis of the neurological and mental disorders in childhood and adolescence. The context of social environment, that is family, peer group and cultural surrounding, will be equally discussed.

Recommended textbooks:

- G.R. Burgio, A.G. Ugazio, G.A. Perinotto *Pediatria essenziale*, UTET, Torino, 1997.
- R.E. Behrman, R.M. Kliegman, H.B. Jenson *Nelson Textbook of Pediatrics*, W.B. Saunders, 2000.
- G. Lanzi e U. Balottin, *Argomenti di neuropsichiatria infantile*, La Goliardica Pavese 1999, II Edizione.
- D. Marcelli, *Psicopatologia del bambino*, Masson, 1999
- Anna Freud, *Normalità e patologia del bambino*, Feltrinelli
- J H Menkes, *Trattato di Neurologia del bambino*, Piccin, 1997

GENERAL PATHOLOGY

- Lecturer: *R. Accolla* (M.D., Full Professor)
- Students: 3rd year, medical students
- 1st semester ,
- Lectures: 45 hours
- Mandatory for the Medical Degree
- Examination: written
- Credits: 12.25

This course is designed to discuss the fundamentals of molecular and cellular pathology with special emphasis on Inflammation Processes, Cell Death and Oncogenesis. Cellular and molecular components of Inflammation are described and specific examples of acute and chronic inflammation are provided. Cell Death includes Apoptosis, Necrosis and corresponding molecular mechanisms. Oncogenesis covers epidemiologic aspects and environmental factors involved in the generation of neoplasia. Genetic and molecular correlates of cellular transformation, including oncogenes and tumour suppressor genes, are discussed in detail.

Recommended textbooks:

- McGee, Isaacson, Wright, *Patologia 1: I principi*.
- Cotran, Kumar, Collins, *Robbins's Pathologic Basis of Disease*, 6th ed. in English

GENERAL PHARMACOLOGY I

- Lecturers:
M. Cosentino (M.D., Ph.D, Associate Professor, co-ordinator), General Pharmacology
F. Marino (B.Sc., Assistant Professor), Cellular and Molecular Pharmacology.
- Students: 4th year, medical students
- 1st semester
- Lectures and practical activities (PC-based exercises)
- Mandatory for the Medical Degree
- Examination: written (optional) and oral (Mandatory)
- Credits: 5

This course is designed to enable students to learn the principles of pharmacodynamics and pharmacokinetics and to describe the general characteristics of a drug. The knowledge of the chemical structure, mechanism(s) of action, kinetics and risk/benefit ratio will make it possible for students to discuss the possible clinical and therapeutic utilisation of drugs. Knowledge of biochemistry and physiology is required. The course is subdivided into four main areas: pharmacodynamics, pharmacokinetics, toxicology, and drug discovery, development (pre-clinical and clinical) and regulatory issues. Specific lectures are devoted to cellular and molecular pharmacology.

Recommended textbooks:

- W.B. Pratt, P. Taylor, *Principles of drug action. The Basis of Pharmacology*, Churchill-Livingstone
- F. Clementi, G. Fumagalli, *Farmacologia generale e molecolare*, UTET Torino

GENERAL PHARMACOLOGY II

- Lecturers:
S. Lecchini (M.D., Full Professor, co-ordinator), Pharmacology
M. Cosentino (M.D., Ph.D., Associate Professor), Chemotherapy
F. Marino (B.Sc., Assistant Professor), Toxicology
- Students: 4th year, medical students
- 2nd semester
- Lectures and practical activities, including PC-based exercises
- Mandatory for the Medical Degree
- Examination: written (optional) and oral (Mandatory)
- Credits: 6

This course is designed to enable students - on the basis of their knowledge of the mechanisms of action of drugs - to describe and interpret the functional changes induced by drugs in cells, tissues, organs and systems, as well as in the whole organism, and to evaluate the risk-benefit ratio in medical practice. On the basis of their knowledge of the different therapeutic drug groups, students are also expected to be able to select the most appropriate drugs in order to treat a given disease, to recognise and evaluate possible therapeutic alternatives, and to define an optimal therapeutic regimen.

Recommended textbooks:

- Hardman et al. Goodman and Gilman's, *The Pharmacological Basis of Therapeutics* McGraw-Hill, New York
- C.R. Craig, R.E. Stitzel, *Farmacologia moderna con applicazioni cliniche*, Antonio Delfino Editore, Roma
- H.P. Rang, M.M. Dale, Ritter J.M., *Farmacologia*, Casa Editrice Ambrosiana, Milano
- B.G. Katzung, *Farmacologia generale e clinica*, Piccin, Padova
- T.M. Speight, N.H.G. Holford, *Avery's Drug Treatment*, ADIS, Auckland

HISTOLOGY

- Lecturers:
D. Quacci (Ph.D, Full Professor, co-ordinator), Histology, Embryology
M. Reguzzoni (Ph.D., Assistant Professor), Cytology
- Students: 1st year, medical students
- 1st semester
- Lectures: 70 hours + 8 hours of exercises
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 7

The first part of the course is designed to provide students with a basic knowledge of cytological and histological concepts and terminology. Subsequently, the course covers cytology (macromolecules, organelles and cells) and histology (from cells to tissues: cellular differentiation and specialisation, epithelia, secreting epithelia, connective tissues, blood, muscles, etc.). The final part of the course is devoted to embryology. The course also includes practical exercises of identification and recognition of histological sections.

Recommended textbooks:

- W. Bloom, D.W. Fawcett, *Trattato di Istologia*
- V. Monesi, *Istologia*

HUMAN ANATOMY I

- Lecturer:

D. Quacci (Ph.D, Full Professor, co-ordinator), Clinical Anatomy

C. Dell'Orbo (Full Professor), Human Anatomy, Neuro-anatomy

- Students: 1st year, medical students
- 2nd semester
- Lectures and practical demonstrations
- Mandatory for the Medical Degree
- Examination: oral and practical
- Credits: 8

The initial part of the course is designed to provide students with the knowledge of basic anatomic concepts and terminology. The course also covers the gross anatomy of the muscular-skeletal system (bones, joints, fasciae and muscles), this being also the basis for the study of the peripheral nervous system and circulatory system. These topics are reviewed in another course. The last part of the course is devoted to the structure and functions of the central nervous system and of the special sensory organs: auditory apparatus and eye. Practical exercises concern the muscular-skeletal system.

Recommended textbooks:

- A. Pensa, G. Favaro, L. Cattaneo, *Anatomia Umana*
- P.L. Williams, *Gray's Anatomy*

HUMAN ANATOMY II

- Lecturers:

D. Quacci (M.D., Full Professor, co-ordinator), Topographical Anatomy

C. Dell'Orbo (Full Professor), Human Anatomy

- Students: 2nd year, medical students
- 1st semester
- Lectures and practical demonstrations
- Mandatory for the Medical Degree
- Examination: oral and practical
- Credits: 11

This course is focused on both gross anatomy and the microscopic anatomy of viscera, including the digestive system (mouth, oesophagus, stomach, guts, liver and pancreas), the respiratory and cardio-circulatory systems (airways, lungs, heart, blood vessels), the excretory system (kidney and urinary pathways), and the reproductive system. This course also covers part of the peripheral nervous system. Practical exercises concern the microscopic anatomy of viscera - the identification of the latter is an integral part of the final Examination.

Recommended textbooks:

- A. Pensa, G. Favaro, L. Cattaneo, *Anatomia Umana*
- P.L. Williams, *Gray's Anatomy*

HUMAN SCIENCES I

- Lecturers:
G. Armocida (M.D., Full Professor, co-ordinator), History of Medicine
M. Bellani (Ph.D., Assistant Professor), Clinical Psychology
P. Cattorini (M.D., Full Professor), Bioethics
A. Francia (M.D., Full Professor), Criminology
- Students: 1st year, medical students
- 1st semester
- Lectures
- Mandatory for the Medical Degree
- Credits: 2

Students are offered a thorough review of medical conceptual models in historical evolution. Ethical issues are presented together with cognitive and emotional aspects having an impact on individual development. The Clinical Psychology course consists of a synthesis of psychological conceptual models particularly oriented to the cognitive and emotional development. Finally, the course covers the basic principles of Bioethics, Criminology and History of Medicine.

Recommended textbooks:

- Author's University Lecture Notes

HUMAN SCIENCES II

- Lecturers:
G. Armocida (M.D., Full Professor, co-ordinator), History of Medicine
G. Bellotti (Ph.D., Full Professor), Clinical Psychology
- Students: 4th year, medical students
- 1st semester
- Lectures
- Mandatory for the Medical Degree
- Credits: 2

This course is designed to review some fundamentals needed in order to consciously enter the world of Clinic. Previous knowledge of basic Sciences and Pathology is required. Issues concerning Physician-Patient relationship and historical, psychological, ethical and deontological aspects are discussed. The course deals with the relationships between health factors and sociological context organisation, as well as with the well-balanced physical / psychological human development in society as a basic condition in order to improve health care quality.

Recommended textbooks:

- Author's University Lecture Notes

IMMUNOLOGY

- Lecturer: *G. Tosi* (Associate Professor)
- Students: 2nd year, medical students
- 2nd semester
- Lectures
- Mandatory for the Medical Degree
- Examination: written
- Credits: 3.5

This course is designed to enable students to understand the molecular and cellular basis of the immune response starting from antigen capture, processing and presentation to lymphocytes and the generation of the effector mechanism cleaning the organism from the antigen, being either pathogens such as bacteria, viruses and protozoa or anomalous internal antigens such as tumour cells. A crucial part of the course is devoted to immunological tolerance and acquisition of an immune repertoire. This course is also focused on relationships between innate and acquired immune systems, and on the genetic basis of diversification of innate and acquired immune receptors.

Recommended textbooks:

- Abbas, Lichtman, Pober, *Immunologia Cellulare e Molecolare*, 4th Ed.
- Janeway, Travers, Shlomchik, *Immunobiology*, 5th Edition in English.

INTERNAL MEDICINE AND THERAPEUTICS I

- Lecturers:
A. *Venco* (M.D., Full Professor, co-ordinator) Internal medicine
F. *Pasquali* (M.D., Full Professor) Human Genetics
A. *M. Grandi* (M.D., Associate Professor) Geriatrics
- Students: 5th year, medical students
- 2nd semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: oral and written
- Credits: 6.5

This course is designed to promote students ability to effectively use - in clinic - the large amount of factual information acquired in the study of specific diseases. Clinical cases will be presented. The most common diseases will be discussed; accounts will be given of conditions which are relatively rare.

Recommended textbooks:

- Harrison, *Principles of Internal Medicine*, 15th ed., MacGraw - Hill 2001
- Claudio Rugarli, *Medicina Interna sistematica*, Masson, 2000

Internal Medicine and Therapeutics Modules

Geriatrics

- Lecturers: A. M. Grandi (M.D., Associate Professor), Geriatrics
- Students: 6th year, medical students
- 2nd semester
- Lectures and practical activity (65 hours)
- Mandatory for the Medical Degree
- Examination: oral

This course is designed to train students to perform a comprehensive assessment and an effective drug treatment of geriatric patients. Topics are: biology of aging, geriatric assessment, clinical pharmacology and pharmacotherapy, syncope, chronic dizziness, postural instability, falls, dementia, cerebrovascular diseases, movement disorders, sleep disorders, Paget's disease, joint disorders, vasculitis syndromes, muscular disorders, osteoporosis, disorders of calcium metabolism, disorders of water and electrolyte balance, disorders of carbohydrate metabolism, thyroid disorders, hormonal supplementation, anemia, anticoagulation, chronic obstructive pulmonary disease, hypertension, hypotension, atherosclerosis, coronary artery disease, heart failure, arrhythmias, peripheral arterial disease, renal disorders, urinary incontinence, acute and chronic renal failure, gastrointestinal, liver and biliary disorders.

Recommended textbooks:

Harrison. *Principles of Internal Medicine*, Mc GrawHill, 2002

Internal Medicine

- Lecturers: A. Venco (M.D., Full Professor) Internal medicine
- Students: 6th year, medical students
- 2nd semester
- Lectures and practical activities (150 hours)
- Mandatory for the Medical Degree
- Examination: oral and written

This course is designed to train students to effectively use - in clinic - the large amount of factual information acquired in the study of specific diseases. Clinical cases will be presented. The most common diseases will be discussed and accounts will be given of conditions which are relatively rare.

Recommended textbooks:

- Harrison, *Principles of Internal Medicine* – 15th MacGraw - Hill 2001

- Claudio Rugarli, *Medicina Interna sistematica*, Ed. Masson Ed 2000

INTERNAL MEDICINE AND THERAPEUTICS II

- Lecturers:
A. *Venco* (M.D., Full Professor, co-ordinator) Internal medicine
L. *Guasti* (M.D., Associate Professor), Therapeutics and Ternal Medicine
- Students: 6th year, medical students
- 1st semester
- Lectures and practical activities (130 hours)
- Mandatory for the Medical Degree
- Examination: oral and written

This course is designed to train students to effectively use - in clinic - the large amount of factual information acquired in the study of specific diseases. Clinical cases will be presented. The most common diseases will be discussed; accounts will be given of conditions which are relatively rare.

Recommended textbooks:

- Harrison, *Principles of Internal Medicine* – 15th MacGraw - Hill 2001
- Claudio Rugarli, *Medicina Interna sistematica* Ed. Masson Ed 2000

LABORATORY OF MEDICINE

- Lecturers:
G. *De Luca* (Ph.D., Full Professor), Biochemical and Clinical Analysis
P. *Conaldi* (M.D., Associate Professor), Clinical Microbiology
- Students: 4th year, medical students
- 2nd semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: written and oral
- Credits: 5.25

The course of Clinical Biochemistry describes Laboratory Organisation, the purpose of different biochemical tests and their clinical significance. This course also covers language standardisation, measurement units and analytical methods, as well as the concept of analytical variability and quality level check in time and space. Biological variability and reference values are also discussed. The course of Clinical Microbiology is designed to enable students to understand the role of Clinical Microbiology in the laboratory diagnosis of infectious diseases. The first part of the course is focused on methods of diagnostic microbiology (biological, immunological and molecular techniques). The second part of the course highlights the correlation between laboratory tests and clinical manifestations with the aim of adequately interpreting the results of diagnostic tests, and defining an appropriate antimicrobial therapy.

Recommended textbooks:

- A.M. Molina Romanzi, *Microbiologia Clinica*, UTET, Milano, 2002
- C.R. Mahon, G. Manuselis, *Textbook of Diagnostic Microbiology*, 2nd Edition, Saunders, Philadelphia, 2000
- C. Mims, J. Playfair, I. Roitt, D. Wakelin, R. Williams, *Medical Microbiology*, 2nd Edition, Mosby, London, 1998

MEDICAL AND SURGICAL EMERGENCIES

- Lecturer: *M. Chiaranda* (M.D., Full Professor)
- Students: 6th year students
- 2nd semester
- Lectures with numerical demonstrations (100 hours)
- Mandatory for the degree
- Examination: oral and practical test
- Credits: 7.75

This course discusses the diagnostic and therapeutic strategies for clinical emergencies with acute neurological, cardiovascular and/or respiratory impairment. Pre-hospital emergency care and in-hospital intensive care are considered. This course promotes students' practical skills in basic and advanced cardiac and trauma life support.

Recommended textbooks:

Chiaranda, Guida illustrata delle emergenze, Piccin, Padova, 1999

MEDICAL PATHOLOGY I

- Lecturers:
L. Campiotti (M.D., Associate Professor, co-ordinator) Medical Oncology
L. Bartalena (M.D., Full Professor) Endocrinology
P. Grossi (M.D., Associate Professor) Infectious Diseases
W. Ageno (M.D., Assistant Professor) Gastroenterology
- Students: 3rd year, medical students
- 2nd semester
- Lectures with practical seminars
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 7.75

This course is an introduction to the fundamental principles of Physiopathology and to the basic concepts of endocrine disorders, infective diseases, allergic and immune diseases, gastroenterological diseases and oncologic diseases.

Recommended textbooks:

- Harrison's, *Principles of Internal Medicine*, Mc GrawHill 2002
- Claudio Rugarli, *Medicina Interna sistematica*, Ed. Masson Ed 2000

MEDICAL PATHOLOGY II

- Lecturers:
J. A. Salerno-Uriarte (M.D., Full Professor, co-ordinator) Cardiology
A. Maresca (M.D., Associate Professor), Respiratory Diseases
L. Guasti (M.D., Associate Professor), Nephrology
L. Campiotti (M.D., Associate Professor, co-ordinator), Haematology
- Students: 4th year, medical students
- 1st semester
- Lectures
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 10

This course is an introduction to the fundamental principles of Physiopathology and to the basic concepts of cardiac, respiratory, renal, haematological and blood vessel disorders.

Recommended textbooks:

- Harrison's, *Principles of Internal Medicine*

MEDICAL PHYSICS AND STATISTICS

- Lecturer: *L. Conte*, (Ph.D., Full Professor)
- Students: 1st year, medical students
- 1st semester
- Lectures and practical exercises
- Mandatory for the Medical Degree
- Examination: written
- Credits: 8.5

This course is designed to enable students to understand the fundamental principles of physics. Special emphasis on physics and statistics in medicine. This course covers the classical branches of physics: statics, laws of motion, work and energy, statics and motion of fluids, gases, thermal properties of the matter, thermodynamics, vibration and waves, sound, electromagnetism, light and optics, atomic and nuclear physics. Topics specifically include applications in medicine and biology. A part of this course is devoted to statistics in medicine.

Recommended textbooks:

- H. Cromer, *Fisica per Medicina, Farmacia e Biologia*, ed. Piccin
- F. Borsa, D. Scannicchio, *Fisica con applicazioni in Biologia e in Medicina*, ed. UNICOPLI.
- Stanton A. Glantz, *Statistica per discipline bio- mediche*

MEDICAL SEMEIOTICS

- Lecturers:
A.M. Grandi (M.D., Associate Professor, co-ordinator), Semeiotics and Clinical Methods
G. Bellotti (Ph.D., Full Professor), Clinical Psychology
- Students: 3rd year, medical students
- 2nd semester
- Clinical Methods: Lectures and bed-side practice
- Clinical Psychology: Lectures and practical exercises
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 5

The course of Clinical Methods is designed to describe the methods of clinical evaluation of patients. Topics include: clinical history of present and previous illnesses, family history, social and occupational history, general physical Examination. Clinical Examination of skin and subcutaneous tissue, locomotor system, respiratory system, cardiovascular system, nervous system; clinical Examination of the unconscious patient. Topics covered by the course of Clinical Psychology include: 1. psychological analysis in medical practice; 2. personality, coping and mechanisms of defence; 3. patient-to-physician relationships; 4. medical interview; 5. management of therapy problems; 6. medical practice and counseling. The course is designed to promote an efficient communication between the physician, the patient and his family.

Recommended textbooks:

- Author's University Lecture Notes
- Andrew Sims, *Introduzione alla Psicopatologia Descrittiva*
- Hilgard, *Introduzione alla Psicologia*, Piccin, 1999.

MICROBIOLOGY I

- Lecturer: A. Toniolo (M.D., Full Professor)
- Students: 2nd year, medical students
- duration: 1st semester
- Mandatory for the medical Degree
- Examination: written and/or oral (a practical test may be included)
- Credits: 3.5

A) General Microbiology:

This course reviews biological concepts underlying the interaction of humans with different micro-organisms (bacteria, viruses, fungi and protozoa). Students are required to learn specific medical terms describing such interactions and to become familiar with logical and experimental processes that led to the discovery of the etiology and pathogenesis of human infectious diseases (biological properties of bacteria, viruses, fungi and protozoa; transmissible diseases; etiologic agents; infection and disease;

sterilization and disinfection; natural and acquired resistance to infectious agents; pathogenetic mechanisms).

B) Specific micro organisms:

The second part of the course is focused on medically important bacteria, viruses, fungi, and protozoa. Pathogenicity mechanisms are discussed together with biological methods employed to diagnose, prevent and cure infectious diseases. Students are required to learn the medical terms used in order to describe infectious processes and to become familiar with the logical processes used when investigating the cause, pathogenesis, prevention and cure of human infections (common pathogens; role of micro organisms in degenerative and neoplastic pathologies; ecology of human pathogens; biological basis of laboratory diagnostic tests; biological basis of chemotherapy and immune prevention of infections).

C) Practical training:

Short internship on basic microbiological techniques (microscopy of bacteria, fungi and protozoa; microscopic identification of inflammatory cells; culture and isolation of bacteria; biochemical identification of bacterial species; in vitro assays for anti-microbial drug susceptibility).

Recommended textbooks:

- La Placa, *Principi di Microbiologia Medica*, Esculapio, 2002
- Mims, Playfair, Roitt, Wakelin, Williams, *Medical Microbiology*, Mosby, 1999
- Brooks, Butel, Javetz, *Melnick and Adelsberg's Medical Microbiology*, Morse, Lange, 1998
- Baron et al., *Microbiology*, Mosby, 1997

MICROBIOLOGY II

- Lecturer: A. Toniolo (M.D., Full Professor)
- Students: 2nd year, medical students
- duration: 2nd semester
- Mandatory for the medical Degree
- Examination: written and/or oral (a practical test may be included)
- Credits: 5.25

See Microbiology I.

NEUROLOGY AND NEUROSURGERY

- Lecturers:
G. Bono (M.D., Associate Professor, co-ordinator), Neurology
G. Tomei (M.D., Full Professor), Neurosurgery
- Students: 5th year, medical students
- 1st semester
- Lectures, seminars, short internships
- Mandatory for the Medical Degree
- Examination: written and oral (basic neurology and neurosurgery)
- Credits: 5.25

This course provides basic information about clinical aspects, course and practical management of the most frequent neurological disorders. Some aspects of Physiopathology are covered, when relevant for an up-to-date classification and treatment. Emphasis on the clinical and instrumental correlates of diagnosis and current guidelines and practice parameters. Compact sections are devoted to neurodegenerative disorders with cognitive and motor involvement, epilepsy, acute and chronic pain, cerebrovascular disorders of ischemic origin, cranial nerve, diseases of muscles and peripheral nervous system. Seminars are focused on the clinical importance of Neurophysiology (EEG/EMG/PE) and Clinical Neuropsychology.

Recommended textbooks:

- C. Fazio, C. Loeb, *Neurologia*, Società Editrice Universo, Roma 1996
- R.D. Adams, M. Victor, *Principi di Neurologia*, Edizione italiana a cura di L. Frattola, G. Nappi, P. Tonali, IV Ed. Mc Graw Hill Libri Italia, 1994
- P. Pinelli, M. Poloni, *Neurologia: Principi di Diagnostica e Terapia*, Casa Editrice Ambrosiana, 1993
- J. Cambier, M. Masson, H. Dehen, *Neurologia*, 7th ed, Masson, 1998

OBSTETRICS AND GYNECOLOGY

- Lecturers:

P.F. Bolis (M.D., Full Professor, co-ordinator) Obstetrics and Gynaecology

F. Ghezzi (M.D. Associate Professor) Prenatal Medicine

- Students: 5th year, medical students
- 2nd semester
- Lectures and clinical round
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 8.75

This two-year course discusses the fundamental principles of Obstetrics and Gynaecology. Topics include: physiology of reproduction: menstrual cycle, fecundation, implantation, embryo-genesis, actions of steroids on female organs; infertility: the infertile couple, amenorrhoea, abortion; contraception: hormonal contraception, voluntary termination of pregnancy, induction of ovulation, assisted reproduction; benign gynaecological diseases: dysfunctional uterine bleeding, myomas, genital prolapse, pelvic inflammatory disease; sexually transmitted diseases: endometriosis, ovarian cysts; malignant gynaecological diseases: epidemiology and natural history of gynaecological diseases; prevention and risk factors; screening and early diagnosis; principles of treatments; follow-up and complications; oncologic gynaecologic therapy.

The course on Prenatal Medicine discusses the following topics: normal labour and delivery, parturition, mechanisms of normal labour, intrapartum assessment, operative obstetrics, vacuum extraction, forceps, Caesarean section, common complications of pregnancy, hypertensive disorders, pre-term birth, post-term pregnancy, foetal growth retardation, premature rupture of pregnancy, multifoetal pregnancy, placenta and amniotic fluid, placenta previa, abruptio placentae, umbilical cord, oligoamnios, poly-

hydramnios, assessment of foetal health, ultrasound, Doppler, non-stress test, biophysical profile, invasive prenatal diagnosis, non invasive prenatal diagnosis.

Recommended Textbooks:

- Nappi C., *Ostetricia e Ginecologia*, Ed. Idelson Gnocchi 2004
- Cunningham FG et al. Williams, *Obstetrics*, 21st edition. Ed. McGraw-Hill 2001
- AA.VV. *Ostetricia e Ginecologia*, Ildeson, Gnocchi Ed. 2005 Napoli

ODONTOSTOMATOLOGY AND DERMATOLOGY

- Lecturers:
A. *Tagliabue* (M.D. Associate Professor, co-ordinator), Odontostomatology
N. *Zerbinati* (M.D., Contract Professor), Dermatology
- Students: 4th year, medical students
- 2nd semester
- Lectures: 20 hours
- Examination: oral
- Credits: 5.25

The course on Odontostomatology is designed to enable students to understand Oral Biology and Oral Science, as well as topics covering several aspects of modern practice of Dentistry in the community service and in general practice. Lectures are also focused on General Pathology and Microbiology. Some lessons are devoted to the manipulation of the materials used in Dentistry. Other topics include Pediatric Dentistry, Restorative Dentistry, Orthodontics, Oral and Maxillofacial Surgery and Gnathology. The course on Dermatology is designed to enable students to identify and diagnose skin disorders.

Recommended textbooks:

- B. De Michelis, R. Modica, G. Re, *Trattato di Clinica Odontostomatologica*, Minerva Medica, Torino, 1998

PATHOLOGICAL ANATOMY I

- Lecturer: *F. Sessa* (M.D., Full Professor)
- Students: 4th year, medical students
- 2nd semester
- Lectures: 40 hrs + 7 hrs exercises
- Mandatory for the Medical Degree
- Examination: oral
- Credits:7

This two-year course reviews the fundamental principles of cyto-morphological lesions and molecular abnormalities leading to human diseases. The first part of the course is focused on the pathology of the cardiovascular, lung, hepatic, gastrointestinal, pancreatic, endocrine, kidney and male genitourinary systems. The second part of the

course discusses the pathology of the lympho-haematopoietic system, nervous system, head and neck, muscles and skeleton, skin, female genital tract, breast and soft tissues.

Recommended textbooks:

- V. Kumar, R. Cotran, Robbins, *Basic pathology*, Saunders, 7th edition

PATHOLOGICAL ANATOMY II

- Lecturers:
C. Capella (M.D., Full Professor, co-ordinator), Pathology, Histology
C. Riva (M.D. Assistant Professor), Cytopathology
- Students: 5th year, medical students
- 1st semester
- Lectures: 40 hrs + 7 hrs exercises
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 8.75

This two-year course is an introductory discussion of the fundamental characteristics of cyto-morphological lesions and molecular abnormalities leading to human diseases. The first part of the course is devoted to the pathology of the cardiovascular, lung, hepatic, gastrointestinal, pancreatic, endocrine, kidney and male genitourinary systems. The second part of the course covers the pathology of the lympho-haematopoietic system, nervous system, head and neck, muscles and skeleton, skin, female genital tract, breast and soft tissues.

Recommended textbook:

- V. Kumar, R. Cotran, Robbins. *Basic Pathology*, Saunders, 7th edition

PHYSIOLOGY

- Lecturer: D. Negrini (Ph.D., Full Professor)
- Students: 2nd year, medical students
- 2nd year, 2nd semester & 3rd year, 1st semester
- Lectures: 90 hours
- Mandatory for the Medical Degree
- Examination: written and oral
- Credits: 10.5

This course is designed to enable students to learn: a) the mechanisms involved in the basic functions of different tissues, organs and systems of the human body; b) the mechanisms through which organs reciprocally interact in order to maintain their homeostatic energetic equilibrium and physical-chemical organisation; c) the control of tissue functions and the control of interactions between different organs by the endocrine and nervous systems in response to modifications of functional performances and/or of the external environment.

Recommended textbooks:

- R.M. Berne, M.N Levy, *Fisiologia*, Casa Editrice Ambrosiana, Milano
- Guyton & Hall, *Fisiologia Medica*, EdiSES, Napoli
- F. Baldissera, *Fisiologia e Biofisica Medica*, Poletto Editore, Milano
- J.B. West, *Respiratory Physiology*, Cortina Editore
- G.A. Cavagna, *Muscolo e Locomozione*, Cortina Editore

PHYSIOPATHOLOGY

- Lecturer: *D. Noonan* (Ph.D., Contract Professor)
- Students: 3rd year, medical students
- 2nd semester
- Lectures and seminars
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 3.5

This course reviews the fundamental principles of cellular physiopathology and the pathological mechanisms of the organs and their functions. Topics include: causes and characteristics of the vascular system diseases, renal physiopathology and nephritic syndromes, physiopathology of the respiratory system, cyanosis and dyspnoea, cardiovascular physiopathology, hepatic diseases such as steatosis and cirrhosis, physiopathology of the pancreas and the endocrine system.

Recommended textbooks:

- Cotran, Kumar, Collins, *Basi Patologiche delle Malattie - VI edizione*
- Pontieri, Russo, Frati, *Patologia Generale - III edizione*

PHYSIOPATHOLOGY OF SENSORIAL ORGANS

- Lecturers:
C. Azzolini (M.D., Associate Professor, co-ordinator), Ophthalmology
P. Castelnovo (M.D., Associate Professor), Otorhinolaringology
- Students: 3rd year, medical students
- 2nd semester
- Lectures with practical seminars
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 4.5

This course covers the basic principles of diseases affecting ears, nose, throat and eyes.

Recommended textbooks:

- Rossi G., *Trattato di Otorinolaringoiatria*, Minerva Medica, Torino, 1999
- Miglior M., *Oftalmologia Clinica*, Monduzzi, Padova, 1999
- Linuzzi I. et al., *Manuale di Oftalmologia*, Minerva Medica, Torino, 2002

PSYCHIATRY AND CLINICAL PSYCHOLOGY

- Lecturers :
S. Vender (M.D., Full Professor, co-ordinator) Psychiatry
G. Bellotti (Ph.D., Full Professor), Clinical Psychology
- Students: 4th year, medical students
- 2nd semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 5.25

The course of Psychiatry is designed to enable students to understand the development of psychiatry (from the Psychiatric Hospital to the Community). Topics include general concepts about Psychopathology and Nosology; the general characteristics of Psychosis; Schizophrenia; Paranoid States; characteristics of Postpartum Disorders; Mood Disorders: Depression and Mania; Delirium and Chronic Brain Syndrome; Disorders due to substance abuse; PAD, GAD and OCD; Personality Disorders; Eating Disorders; Factitious Disorders; Therapeutic relationships; Psychiatric Treatment (psychopharmacology, psychotherapy, rehabilitation).

The course of Clinical Psychology discusses the following topics: 1. clinical psychology: definitions, history and paradigms; 2. classification and diagnosis; 3. practice in clinical assessment; 4. conscience troubles; 5. attention and vigilance troubles; 6. perception and memory troubles; 7. thought troubles; 8. affection troubles.

Recommended textbooks:

- *S. Vender, Elementi di psichiatria*, La Goliardica Pavese
- *Katona e Robertson, Psichiatria a colpo d'occhi*, La Goliardica Pavese
- Author's University Lecture Notes (for Clinical Psychology)
- *Andrew Sims, Introduzione alla Psicopatologia Descrittiva*.
- *Hilgard, Introduzione alla Psicologia*, Piccin, Padova, 1999.

PUBLIC HEALTH MEDICINE I

- Lecturers:
F. Banfi (M.D., Associate Professor, co-ordinator) Hygiene
M. Ferrario (M.D. Associate Professor) Occupational Health
- Students: 5th year, medical students
- 1st semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: written test and oral
- Credits: 5.25

This course covers classical hygiene and epidemiology and a review of the major risk factors to which populations in Southern Europe are exposed. Principles of Italian

legislation are also discussed. This course is designed to train students to understand how occupational hazards may affect health, to recognise work-related diseases and possible links between high-impact diseases and exposure to industrial environment. Topics include: occupational health in Italy and national regulations designed to prevent occupational diseases, occupational epidemiology, background in industrial hygiene and toxicology, toxic effects of common organic solvents and metal compounds, ionising and non-ionising radiations, noise and vibrations, atmospheric environmental variations, occupational stress, infectious agents, allergic reactions. Specific emphasis on the recognition and clinical assessment of respiratory, cardiac, muscular-skeletal and skin disorders, and on occupational cancer. Practical activities are designed to promote students' ability to investigate work-related diseases, including occupational exposure. Topics include: hygiene effectiveness and purpose; natural history of diseases; notions of general epidemiology; data sources, main epidemiological measures, types of epidemiological studies; prevention medicine; prevention levels. First prevention level: education on health issues, health promotion; immunity and prevention; epidemiology and prevention of infectious diseases: epidemiological chain of infections; factors affecting human health; factors related to human behaviour; food, smoke, alcohol; biological environment -related factors; food hygiene; hospital-related infections. Third prevention level: selection and treatment of risk conditions. Notions relating to public health: health care planning and organisation; economy and management.

Recommended textbooks:

- G. C. Cesana, *Corso di Medicina del Lavoro*, Ed. CUSL, Milano, 1998;
- L. Ambrosi, V. Foà, *Trattato di Medicina del Lavoro*, UTET, Milano, 1998;
- B.S. Levy, DH Wegman, *Occupational Health. Recognising and Preventing Work-related Disease*, 2nd edition. Little, Brown and Company, Boston/Toronto, 1990;
- L. Checcacci, C.Meloni, G.Pelissero, *Igiene* CEA editrice Milano;
- B. Angelillo, P.Crovani, A.Gullotti, C.Meloni, *Manuale di Igiene*, Masson Spa.
- C. Signorelli, *Elementi di Metodologia Epidemiologica*, Universo Roma

Public Health Medicine I Modules

Hygiene

- Lecturer: *F. Banfi* (M.D., Associate Professor)
- Students: 6th year of the Medical School
- 1st semester
- Lectures and practical activity (65 hours)
- Mandatory for the Medical Degree
- Examination: written test and oral

Topics include: hygiene effectiveness and purpose; natural history of diseases; notions of general epidemiology; data sources, main epidemiological measures, types of epidemiological studies; preventive medicine; prevention levels. First prevention level: education on health issues, health promotion; immunity and prevention; epidemiology and prevention of infectious diseases: epidemiological chain of infections; factors affecting human health; factors related to human behaviour; food, smoke, alcohol; biological environment -related factors; food hygiene; hospital-related infections. Third prevention level: selection and treatment of risk conditions. Notions relating to public health: health care planning and organisation; economy and management.

Recommended textbooks:

- L. Checcacci, C.Meloni, G.Pelissero, *Igiene* CEA editrice Milano.
- B.Angelillo, P.Crovani, A.Gullotti, C.Meloni, *Manuale di Igiene*, Masson Spa.
- C.Signorelli, *Elementi di Metodologia Epidemiologica*, Universo Roma

Community Medicine

- Lecturer: *G. Armocida* (M.D., Full Professor)
- Students: 6th year of the Medical School
- 1st semester
- Lectures and practical activity (65 hours)
- Mandatory for the Medical Degree
- Examination: written test and oral

Occupational Health

- Lecturer: *M. Ferrario* (M.D. Associate Professor)
- Students: 6th year, medical students
- 1st semester
- Lectures and practical activity (65 hours)
- Mandatory for the Medical Degree
- Examination: written test and oral

This course is designed to train students to understand the effects of occupational hazards on human health, to recognise work-related diseases and the relationship between high-impact diseases and work exposure. Topics are: occupational health in Italy and national regulations designed to prevent occupational diseases, occupational epidemiology, backgrounds in industrial hygiene and toxicology, toxic effects of common organic solvents and metal poisonings, ionising and non-ionising radiations, noise and vibrations, atmospheric variations, occupational stress, infection agents, allergic reactions. Specific emphasis on the recognition and clinical assessment of respiratory, cardiac, muscular-skeletal and skin disorders and occupational cancers. Practical activities are designed to enhance students' capability to investigate work-related diseases, and to use adequate instruments in order to investigate occupation exposures, and diagnostic instruments.

Recommended textbooks:

- GC. Cesana, *Corso di Medicina del Lavoro*, Ed. CUSL 1998, Milano;
- L. Ambrosi, V. Foà, *Trattato di Medicina del Lavoro*, UTET 1998, Milano;
- BS Levy and DH Wegman, *Occupational Health. Recognising and Preventing Work-related Disease*, II Edition. Little, Brown and Company 1990; Boston/Toronto

PUBLIC HEALTH MEDICINE II

- Lecturers:
M. Tavani (M.D., Ph.D., Full Professor, co-ordinator) Forensic Medicine
P. Cattorini (M. D., Full Professor) Bioethics
A. Francia (M.D., Full Professor) Criminology and social defence

- Students: 5th year, medical students
- 2nd semester
- Lectures, seminars and practical activities
- Mandatory for the Medical Degree
- Examination
- Credits: 5,25

This course is designed to review the major legal and forensic problems related to biology and medicine practice. The first part of the course discusses the notions of *medical act* and *scientific medicine*, bioethics and medical deontology, malpractice and professional liability in penal and civil law. The second part deals with health regulations and social security institutions in Italy. The third part deals with forensic psychiatry and the bases of criminology. The fourth part deals with the bases of forensic thanatology, asphyxiology, traumatology, pathology and toxicology. Seminars are focused on medical aspects of judicial on-the-spot investigation, certification and ethic consultation.

Recommended textbooks:

- Macchiarelli L. Arbarello P., Cave Bondi G., Feola T., *Compendio di Medicina Legale*, Minerva Medica, Torino, 2002

Public Health Medicine II Modules

Forensic Medicine

- Lecturers:
M. Tavani (M.D., Full Professor, co-ordinator), Forensic Medicine
P. Cattorini (M. D., Full Professor) Bioethics
A. Francia (M.D., Full Professor) Criminology and social defense
- Students: 6th year, medical students
- 1st semester
- Lectures, seminars, practical activities (65 hours)
- Mandatory for the Medical Degree
- Examination: oral

This course is designed to train students to understand the major legal and forensic problems related to biology and medicine practice. The first part of the course deals with notions of *medical act* and *scientific medicine*, bioethics and medical deontology, malpractice and professional liability in penal and civil law. The second part deals with health regulations and social security institutions in Italy. The third part deals with forensic psychiatry and the bases of criminology. The fourth part deals with the bases of forensic thanatology, asphyxiology, traumatology, pathology and toxicology. Seminars will be focused on medical aspects of judicial on-the-spot investigation, certification and ethic consultation.

Recommended textbooks:

- Macchiarelli L. Arbarello P., Cave Bondi G., Feola T., *Compendio di Medicina Legale*, Minerva Medica, Torino, 2002

SCIENTIFIC ENGLISH

- Lecturer: *F. Pasquali* (Ph.D., Contract Professor)
- Students: 3rd year, medical students
- 2nd semester
- Lectures with oral exercises
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 2.5

The aim of the course is to give students a solid grounding in English grammar and usage, and to practice reading and listening skills through a variety of reading and listening exercises.

The Examination comprises: a reading comprehension exercise with multiple choice and/or true-false questions, a sentence restructuring exercise, a “proof-reading” exercise, a word-formation exercise, a written description of some of the medical conditions discussed in the textbooks, a listening comprehension passage with gap-fill questions.

Recommended textbooks:

- Massari, Teriaca, *English on Duty*

RADIOLOGY

- Lecturers:
C. Fugazzola, (M.D., Full Professor, co-ordinator), Radiology
M. Tordiglione, (M.D., Associate Professor), Radiotherapy
- Students: 5th year, medical students
- 1st semester
- Lectures and practical activities
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 6.5

This course is an introduction to the fundamental principles of medical imaging. Main topics: imaging modalities (conventional radiology; digital radiology; ultrasound; computed tomography; magnetic resonance imaging; nuclear medicine techniques); chest imaging (lung and mediastinum); cardiovascular system imaging (heart; arterial and venous vessels); gastrointestinal imaging (G.I. tract; liver, bile ducts and pancreas); kidney and genitourinary tract imaging; skeletal imaging (inflammatory and degenerative diseases; infectious diseases; tumors; traumas). Neurological diseases are shortly reviewed. Fundamentals of intra-surgery radiology.

Recommended textbooks:

- G. Cittadini, *Diagnostica per Immagini e Radioterapia*, ECIG, Genova 2002

- R. Passariello, G. Simonetti, *Compendio di Radiologia*, Idelson Gnocchi, Napoli 2000.

SURGERY I

- Lecturer: *R. Dionigi* (M.D., Full Professor)
- Students: 5th year, medical students
- 2nd semester
- Lectures, seminars and practical activities
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 6.5

This biennial course introduces the basic principles of surgery, with special attention to sepsis, oncology, inflammatory diseases, clinical nutrition and immunological disorders in surgery. In the first part of the course, topics are: the physiopathology, clinical appearance and diagnosis of diseases of the gastrointestinal tract with special reference to oesophageal, pancreatic and hepatic diseases. The second part of the course is devoted to the instrumental diagnosis and surgical treatment of gastrointestinal, thyroid and breast diseases. Introduction to the basic principles of surgical techniques and technologies in the second year of the course.

Recommended textbooks:

- R. Dionigi, *Chirurgia*, 3rd ed, Masson

SURGERY II

- Lecturer: *R. Dionigi* (M.D., Full Professor, co-ordinator)
- Students: 6th year, medical students
- 1st semester
- Lectures, seminars and practical activities (75 hours)
- Mandatory for the Medical Degree
- Examination: oral

Biennial course; see the program of the 5th Year, 2nd semester. The second part of the module is discussed in the 6th year.

Recommended textbooks:

- R. Dionigi *Chirurgia*, 3rd ed, Masson

SURGICAL PATHOLOGY I

- Lecturer: *L. Gaeta* (M.D., Associate Professor)
- Students: 3rd year, medical students
- 2nd semester
- Lectures with practical seminars

- Mandatory for the Medical Degree
- Examination: oral
- Credits: 7.75

Topics include: emostasis and coagulation; recovery of injuries; infections; metabolic response to stress, trauma and burns; nutrition; cancer biology, physiopathology of the organ, the apparatus and the system; physiopathology of surgical interventions.

Recommended textbooks:

- R. Dionigi, *Chirurgia*, 3rd ed., Ed. Masson

SURGICAL PATHOLOGY II

- Lecturers:
L. Dominioni (M.D., Full Professor, co-ordinator), Thoracic surgery
A. Benevento (M.D., Full Professor), Gut surgery
A. Sala (M.D., Full Professor), Heart surgery
P. Castelli (M.D., Associate Professor), Vascular surgery
L. Colombo (M.D., Associate Professor), Endocrine surgery
L. Valdatta (M.D., Assistant Professor), Plastic surgery
- Students: 4th year, medical students
- 2nd semester
- Lectures with practical seminars
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 10

This course covers the Physiopathology of surgical disorders of the gastro-intestinal tract, blood vessels, heart, lung, and endocrine organs as well as the basic principles of plastic surgery.

Recommended textbooks:

- R. Dionigi, *Chirurgia*, 3rd ed, Masson

SURGICAL SEMEIOTICS

- Lecturers:
L. Dominioni (M.D., Full Professor, co-ordinator), Semeiotics and Surgical Methods
M. Bellani (Ph.D., Assistant Professor), Clinical Psychology
- Students: 3rd year, medical students
- 2nd semester
- Lectures with practical seminars
- Mandatory for the Medical Degree
- Examination: oral
- Credits: 5

This course reviews the fundamental principles of anamnesis and physical Examination of surgical patients. The principles of the subject matter are tackled with special emphasis on the proper methodological approach to the patient. Main topics include: patient history; frequent symptoms in surgical patients (fever, pain, dysphagia, vomiting, diarrhoea, malnutrition, constipation, jaundice, cough, hemoptysis, etc.); physical Examination of body organs and systems; medical psychology, with special focus on the psychological aspects of the medical-surgical interview, diagnostic and bad news communications, psychological reactions to illness, surgical operations, hospitalisation, terminal patient and his/her family.

Recommended textbooks:

- R. Dionigi, *Chirurgia* 3rd ed. Ed. Masson
- B. Bates, *A Guide to Physical Examination and History Taking*, Ed. J.B. Lippincott
- Author's University Lecture Notes (for Clinical Psychology)
- Andrew Sims, *Introduzione alla Psicopatologia Descrittiva*.
- Hilgard's, *Introduzione alla Psicologia*, Padova, Piccin, 1999.