COURSES TAUGHT IN ENGLISH

MEDICINE

DISCIPLINARY AREAS:

- ECONOMICS
- EDUCATION
- LAW
- MEDICINE
- PSYCHOLOGY
- SCIENCE
- SOCIOLOGY

WHY BICOCCA

Bicocca is a young university that will connect you with students from all over the world. You will not just be a student here. You will be a member of the global community.

Since its foundation, the University of Milano-Bicocca has reached beyond its borders entering into various agreements with European and non-European universities.

Research is always global. Our teachers are members of international research groups that share numerous projects and initiatives, with a common commitment to increase the quality of teaching. Our focus on innovation offers students competitive and practical training.


PROPRIETÀ
PRIVATA

STUDY MEDICAL SCIENCES @MILANO-BICOCCA

The field of Medical Sciences at the University of Milano-Bicocca is at the forefront of international education and research and cutting-edge practice in clinical medicine and biomedical science. The Department brings together **12 degree courses** across medicine and allied subjects:

B 7 Bachelor degrees
M 2 Master degrees
SCMD 3 Single Cycle Master Degree

OUR INTERNATIONAL OFFER

In the field of Medical Sciences, our University offers the following 2 degree programs in English:

* Single Cycle Master Degree in Medicine & Surgery
* Post Graduate Degree in Biotechnology in Medicine (2 years)

There are more of 180 individual courses taught entirely in English.

OUR LOCATION

POST GRADUATE DEGREE IN BIOTECHNOLOGY IN MEDICINE is held at our Monza Campus .
SINGLE CYCLE MASTER DEGREE IN MEDICINE & SURGERY is held at the campus of University of Bergamo.
The 2 locations reflect our strong clinical and research partnership with the multi-specialty San Gerardo and Papa Giovanni XXIII hospitals.

TABLE OF CONTENTS:

* CONSERVATIVE DENTISTRY (module)
* CONTRAST MEDIA AND RADIOPHARMACEUTICAL (module)
* DERMATOLOGY (module)
* DIAGNOSTICS (module)
* DIAGNOSTICS AND RADIATION ONCOLOGY (module)
* DIGESTIVE HEALTH
* EAR, NOSE AND THROAT (module)
* EMERGENCY (module)
* ENDOCRINE KIDNEY AND URINARY TRACT DISEASES
* ENDOCRINOLOGY (module)
* ENDOCRINOLOGY AND CANCER
* ENDOCRINOLOGY and METABOLIC DISEASES
* ETHICS AND LAW (module)
* FROM BENCH TO BEDSIDE: TRANSLATIONAL APPROACH TO DISEASES
* FUNDAMENTALS OF CELL BIOLOGY AND GENETICS
* FUNDAMENTALS OF HUMAN MORPHOLOGY
* FUNDAMENTALS OF HUMAN PHYSIOLOGY
* GASTROENTEROLOGY AND HEPATOLOGY (module)
* GASTRO-INTESTINAL DISEASES (module)
* GENERAL ANATOMY (module)
* GENERAL PHYSIOLOGY I (module)
* GENERAL PHYSIOLOGY II (module)
* GENERAL PSYCHOLOGY I (module)
* GENERAL PSYCHOLOGY II (module)
* GENERAL SURGERY (module)
* GENETICS I (module)
* GENETICS II(module)
* GENETICS AND REPRODUCTION
* GLOBAL PEDIATRIC MEDICINE AND COOPERATION
* HEALTH ECONOMICS (module)
* HEAD AND NECK DISEASES
* HEMATOLOGY (module)
* HISTOLOGY (module)
* HTA (module)
* HUMANITIES
* IMAGE DIAGNOSTICS
* IMAGING (module)
* IMMUNOLOGY I (module)
* IMMUNOLOGY II (module)
* INFECTIOUS DISEASES
* INFLAMMATORY BOWEL DISEASES (MICI)
* INSTRUMENTATION FOR DIAGNOSTIC IMAGING AND RADIOTHERAPY (module)
* INTERNAL MEDICINE (module)
* INTERNSHIP IN ANATOMY
* INTERNSHIP IN ANESTHESIOLOGY E RESUSCITATION A
* INTERNSHIP IN ANESTHESIOLOGY E RESUSCITATION B
* INTERNSHIP IN CARDIOLOGY A
* INTERNSHIP IN CARDIOLOGY B
* INTERNSHIP IN CARDIOLOGY E TECHNOLOGY

LEGEND

M didactic module
tbd: to be defined
N/A: information not available

TABLE OF CONTENTS:

* ONCOLOGY (module)
* PATHOLOGY (module)
* PATHOLOGY AND MEDICINE (module)
* PERIODONTOLOGY (module)
* PHARMACOLOGY
* PHARMACOLOGY (module)
* PHYCHIATRY I (module)
* PHYCHIATRY II (module)
* PHYSIOLOGY (module)
* PHYSIOLOGY OF THE NERVOUS SYSTEM I (module)
* PHYSIOLOGY OF THE NERVOUS SYSTEM II (module)
* PREVENTIVE MEDICINE (module)
* PROSTHESIS AND REHABILITATION (module)
* PROSTHESIS AND REHABILITATION IN PRACTICE (module)
* PUBLIC HEALTH (module)
* PUBLIC HEALTH, PREVENTIVE AND OCCUPATIONAL MEDICINE
* RADIOLOGICAL ANATOMY (module)
* REGIONAL ANATOMY (module)
* RESPIRATORY SCIENCES I (module)
* RESPIRATORY SCIENCES II (module)
* RHEUMATOLOGY (module)
* SCIENTIFIC AND MEDICAL LANGUAGE
* SKIN AND CONNECTIVE TISSUE DISEASES
* SOCIETY AND HEALTH I (module)
* SOCIETY AND HEALTH II (module)
* STATISTICAL PRINCIPLES IN BIOMEDICAL RESEARCH
* SURGERY (module)
* TRANSLATIONAL APPROACH TO NEUROLOGICAL DISORSERS
* TRANSLATIONAL APPROACH TO ONCO-HEMATOLOGICAL DISEASES
* TURNING CLINICAL EXPERIENCE INTO RESEARCH PROJECTS
* UROLOGY (module)
* VASCULAR SURGERY (module)

M: didactic module
tbd: to be defined
N/A: information not available

PROGRAM CODE: H4102D046

3D PRINTING FOR MEDICAL APPLICATIONS

LECTURER: RIZZI CATERINA

CONTENTS

The course aims at providing the students with notions about the technological opportunity and challenges about Additive Manufacturing (AM) processes applied to the medical field.

The working principles of the most relevant Additive Manufacturing technlogies will be shown for the production of medical devices, prostheses, orthoses and implants. Notable case studies will be shown and discussed.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35625

SCMD

YEAR:	3
SEM:	1+2
ECTS:	1
DEGREE in	Medicine and Surgery
CONTACT:	tbd

PROGRAM CODE: H4102D093

ADVANCES IN METABOLIC BONE DISEASES

LECTURER: TREVISAN ROBERTO, CASSIBBA SARA

CONTENTS

Osteoporosis and others most common phospho-calcium disorder .

PREREQUISITES

Propaedeutic skills.

WEBSITE https://elearning.unimib.it/course/info.php?id=35640

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: scassibba@asst-pg23.it

ALTERATIONS OF IRON METABOLISM (module of "From Bench to Bedside" - F0901D050)

LECTURER: PIPERNO ALBERTO

CONTENTS

The aims of the Course is to provide the student with a critical knowledge of the regulatory mechanisms of iron metabolism and related disorders (iron deficiency, primary and secondary iron overload, local and systemic), and technical instruments and strategies normally employed in studying the pathophysiology of iron metabolism and related disorders, and possible new therapeutic approaches.

Presentation of several emblematic examples of diseases of iron metabolism and their physiopathology, and the role of biotechnology in their diagnosis/ therapeutic approach. A general introduction on the methodologies employed to analyse the molecular mechanisms underlying the pathological processes will be provided.

PREREQUISITES

Advanced knowledge in genetics, biology and molecular biology

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WEBSITE https://elearning.unimib.it/course/info.php?id=37995

M

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: alberto.piperno@unimib.it

PROGRAM CODE: F0901D051

ANALYTICAL METHODS FOR NANOBIOTECHNOLOGY

LECTURER: MANTEGAZZA FRANCESCO, SALERNO DOMENICO

CONTENTS

The course aims to provide the students with the knowledge on the general principles enabling to understand which kind of information can be achieved by the most important analysis techniques for nanobiomaterials characterization.

To learn the working principles of the most important analytic techniques and of the most relevant instrumentations used for the characterization of nanoparticles and nanomaterial of biomedical interest.

PREREQUISITES

Basic knowledge in chemistry, biochemistry and molecular biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=37991

YEAR: 2
SEM: 1
ECTS: 6
DEGREE in Biotechnology in Medicine
CONTACT: francesco.mantegazza@unimib.it
domenico.salerno@unimib.it

PROGRAM CODE: H4102D142M

ANATOMY OF THE DIGESTIVE SYSTEM (module of "Digestive Health" - H4102D043)

LECTURER: SONZOGNI AURELIO

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35471

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: aurelio.sonzogni@unimib.it

PROGRAM CODE: H4102D182M

ANATOMY OF THE ENDOCRINE SYSTEM AND URINARY TRACT (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: ROSCIGNO MARCO

CONTENTS

The course aim to consolidate the knowledge of normal, topographic and surgical anatomy of the endocrine system and urinary tract, focusing on the correlations between anatomy and surgical and clinical practice.
The lessons will cover the most important fields of the endocrine and urological anatomy Students will acquire the basic knowledge required to understand the anatomy of the endocrine and urinary system and their relationships with surgery and clinical practice.

PREREQUISITES

Basic knowledge of fundamentals of biology, genetics, morphology, histology, physiology of the uro-genital system.

WEBSITE https://elearning.unimib.it/course/info.php?id=35521

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marco.roscigno@unimib.it

PROGRAM CODE: H4102D050M

ANATOMY OF THE LOCOMOTOR SYSTEM (module of "Locomotor System Diseases" - H4102D018)

LECTURER: GUERRASIO STEFANO

CONTENTS

Gross anatomy and organization of the locomotor system. Description of the structure and function of bones, joints, ligaments and skeletal muscles. Analysis of the movements of individual joints and the body as a whole. Basic anatomical knowledge allowing students to take proper history and perform clinical examination of the musculoskeletal system.

PREREQUISITES

Basic knowledge of histology and anatomy as gained during the 2 term in "Fundamentals of Human Morphology".

WEBSITE https://elearning.unimib.it/course/info.php?id=35535

SCMD

YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: stefano.guerrasio@unimib.it

PROGRAM CODE: H4102D029M

APPLICATION OF BIOSTATISTICS (module of Biostatistics - H4102D009)

LECTURER: REBORA PAOLA

CONTENTS

The student will be able to calculate the main descriptive indexes and to appreciate the characteristics of a sample by descriptive statistics and plots. The student will be able to evaluate the accuracy of a diagnostic test by the sensitivity, specificity and predictive value indexes. The student will be able to calculate specific probabilities from Gaussian and Binomial distribution. The student will be able to calculate statistical tests for means and proportions and confidence intervals. The student will know how to critically read the methodology and results paragraphs of a clinical paper.

Methods for data description. Statistical inference: hypothesis testing, sampling and introduction to modelling. Sample size calculation.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35563

SCMD

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: paola.rebora@unimib.it

PROGRAM CODE: H4102D066

ARTIFICIAL INTELLIGENCE IN HEALTHCARE

LECTURER: GARANTINI ANGELO MICHELE

CONTENTS

Understand what Artificial Intelligence and Machine Learning are, what are their benefits and limits.

Understand the role of AI and its application in healthcare now and in the near future.

PREREQUISITES

Basic computer science knowledge.

WEBSITE https://elearning.unimib.it/course/info.php?id=35629

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: angelo.garantini@unimib.it

PROGRAM CODE: H4102D097

AUTOIMMUNITY: AUTOIMMUNE LIVER DISEASES

LECTURER: INVERNIZZI PIETRO

CONTENTS

The study of the liver as a lymphoid organ is a growing field fueled by our better knowledge of the different component of the immune system and how they orchestrate an immune-related response. The liver have highly specialized mechanisms of immune tolerance, mainly because is continuously exposed to microbial and environmental antigens, and dietary components from the gut. Growing evidences show that the liver produces a pletora of neo-antigens being the primary metabolic organ of the body.

Common immune mechanisms play a key pathogenetic role in most of acute and chronic liver diseases and in the rejection of liver allografts.

Any perturbations of liver-related immune functions have important clinical implications, such as the development of autoimmune liver diseases, i.e. autoimmune hepatitis, primary biliary cholangitis, and primary sclerosing cholangitis, a great paradox for a tolerogenic organ.

PREREQUISITES

Medical student from years 3 to 6.

WEBSITE https://elearning.unimib.it/course/info.php?id=35644

SCMD

YEAR: 3
SEM: 1 + 2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: pietro.invernizzi@unimib.it

PROGRAM CODE: H4102D053

BASIC CLINICAL SKILLS

MODULES: 1.Internal Medicine (ref. H4102D189M)
2.General Surgery (ref. H4102D190M)
3.Emergency (ref. H4102D047M)

LECTURER: INVERNIZZI PIETRO

CONTENTS

The aim of this course is to present several examples of diseases and their physiopathology, and the role of biotechnology in their diagnosis/ therapeutic approach. A general introduction on the methodologies employed to analyse the molecular mechanisms underlying the pathological processes will be provided .

PREREQUISITES

Advanced knowledge in genetics, biology and molecular biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35564

SCMD

YEAR: 2
SEM: 2
ECTS: 7
DEGREE in Medicine and Surgery
CONTACT: pietro.invernizzi@unimib.it

PROGRAM CODE: H4102D004

BASIC COMPUTER SCIENCE

MODULES: 1.Basic Computer Science (ref. H4102D010M)
2.Modelling (ref. H4102D011M)
3.Imaging (ref. H4102D012M)

LECTURER: GARGANTINI ANGELO MICHELE

CONTENTS

The course is composed by three modules dealing with:

1. Medical informatics: data, information, and communication; information systems and DBMS; Telemedicine and Internet for healthcare
2. Medical Imaging: generation of digital images and processing, surface models generation and visualization, data analysis and structural quantification.
3. Human modelling: Techniques and tools to create 3D geometric model of human body and anatomical districts at different level of details according to the domain of application

PREREQUISITES

N/A.

WEBSITE https://elearning.unimib.it/course/info.php?id=35596

SCMD
YEAR: 1
SEM: 1
ECTS: 9
DEGREE in Medicine and Surgery
CONTACT: angelo.gargantini@unimib.it

PROGRAM CODE: H4102D010M

BASIC COMPUTER SCIENCE (module of Basic Computer Science - H4102D004)

LECTURER: GARGANTINI ANGELO MICHELE

CONTENTS

Acquire and deepen their knowledge on computer related methodologies and technologies employed in medical informatics and to apply those methods in solving problems arising in different areas of medicine and the health-care system.

Medical informatics: data, information, and communication; information systems and DBMS; Telemedicine and Internet for healthcare.

PREREQUISITES

N/A.

WEBSITE https://elearning.unimib.it/course/info.php?id=35597

SCMD

YEAR: 1
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: angelo.gargantini@unimib.it

PROGRAM CODE: H4102D011

BASIC PATHOLOGY

MODULES:
1.Microbiology and Virology (ref. H4102D032M)
2.Immunology I (ref. H4102D033M)
3.Immunology II (ref. H4102D034M)
4.Pathology and Medicine (ref. H4102D035M)

LECTURER: CLEMENTINA ELVEZIA COCUZZA

CONTENTS

The course aims to introduce the student to the knowledge of the causes of human diseases, the students will be able to understand the fundamental pathogenetic and pathophysiological mechanisms. During the course, topics for in-depth knowledge on the molecular mechanisms underlying the disease pathogenesis to identify potential therapeutic targets will be developed.

PREREQUISITES

See each module.

WEBSITE https://elearning.unimib.it/course/info.php?id=35551

SCMD
YEAR: 2
SEM: 1
ECTS: 13
DEGREE in Medicine and Surgery
CONTACT: clementina.cocuzza@unimib.it

PROGRAM CODE: H4102D012

BASIC PHARMACOLOGY

LECTURER: PARENTI MARCO DOMENICO

CONTENTS

The course will examine the general principles underlying the destiny of drugs within the organism and the mechanisms responsible of their therapeutic and toxic effects. In addition, the preclinical and clinical processes of drug research and development, the post-marketing surveillance, drug patenting and access will be discussed.

PREREQUISITES

Knowledge of human anatomy, physiology, pathology, chemistry, biochemistry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35556

SCMD

YEAR: 2
SEM: 1
ECTS: 4
DEGREE in Medicine and Surgery
CONTACT: marco.parenti@unimib.it

PROGRAM CODE: H4102D001

BASIC SCIENCES

MODULES:
1.Chemistry and Propaedeutic Biochemistry I (ref. H4102D001M)
2.Biochemistry I (ref. H4102D002M)
3.Biochemistry II (ref. H4102D003M)
4.Medical Physics I (ref. H4102D004M)
5.Medical Physics II (ref. H4102D005M)

LECTURER: RE FRANCESCA

CONTENTS

The primary goal of the course is to provide students with the tools for the understanding of the complex reactions that represent the molecular basis of life, and with the fundamentals to identify the cause-effect relations of the most important biochemical, chemical and physical processes for the curriculum and the work of a physician. This knowledge will form the primary basis for a rationale approach to the knowledge of medical sciences.

PREREQUISITES

Basic knowledges of mathematics, physics, biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35590

SCMD

YEAR: 1
SEM: 1+2
ECTS: 14
DEGREE in Medicine and Surgery
CONTACT: francesca.re1@unimib.it

PROGRAM CODE: H4102D039M

BEHAVIOYRAL SCIENCES, COMMUNICATION SKILLS I (module of "Medicine and Society" - H4102D013)

LECTURER: STREPPARAVA MARIA GRAZIA

CONTENTS

Psychological and relational variables in the doctor-patient relationship; Disease Centered Medicine and Patient Centered Medicine; communication techniques; communication protocols (e.g. Calgary Cambridge Interview); verbal and non-verbal communication; therapeutic alliance; sane and vicious interpersonal cycles.

PREREQUISITES

General knowledge about humanities in medicine acquired in the first year course "Humanities".

WEBSITE https://elearning.unimib.it/course/info.php?id=35547

SCMD

YEAR: 2
SEM: 1+2
ECTS: Only if the entire course is frequented

DEGREE in Medicine and Surgery
CONTACT: mariagrazia.strepparava@unimib.it

PROGRAM CODE: H4102D040M

BEHAVIOYRAL SCIENCES, COMMUNICATION SKILLS II (module of "Medicine and Society"- H4102D013)

LECTURER: BANI MARCO

CONTENTS

The placebo effect in the care relationship, subjective illness perception, the transtheoretical model of change, the Motivational Interview, feedback .

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35548

SCMD

YEAR: 2
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marco.bani1@unimib.it

PROGRAM CODE: H4102D041M

BEHAVIOYRAL SCIENCES, COMMUNICATION SKILLS III (module of "Medicine and Society" - H4102D013)

LECTURER: RUSSO SELENA

CONTENTS

To know the features of feedback, To describe types of feedback, To formulate effective feedback, Being able to receive feedback .

PREREQUISITES

None

WEBSITE https://elearning.unimib.it/course/info.php?id=35549

SCMD

YEAR: 2
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: selena.russo@unimib.it

PROGRAM CODE: H4102D051M

BIOCHEMISTRY (module of "Locomotor System Diseases "- H4102D018)

LECTURER: RE FRANCESCA

CONTENTS

Biochemistry of the bone remodelling. Biochemical markers of bone deposition and reabsorption. Growth factors and hormones involved in bone remodelling. Biochemistry of the skeletal muscle. Metabolic changes in physical exercise. Nutritional aspects and oxidative stress of the locomotor system.

PREREQUISITES

Basic knowledge of biochemistry, biology and chemistry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35536

SCMD

YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: francesca.re1@unimib.it

PROGRAM CODE: H4102D103M

BIOCHEMISTRY (module of "Neuroscience 1 "- H4102D028)

LECTURER: RE FRANCESCA

CONTENTS

Metabolism of CNS (saccharides, proteins amino acids, lipids). Biochemistry of the blood-brain barrier. Metabolic changes in pathological conditions. Nutritional aspects.

PREREQUISITES

Basic knowledge of biochemistry, biology and chemistry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35525

SCMD

YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: francesca.re1@unimib.it

PROGRAM CODE: H4102D002M

BIOCHEMISTRY I (module of Basic Sciences - H4102D001)

LECTURER: CORBO CLAUDIA

CONTENTS

The Biochemistry I module will illustrate the importance of life-sustaining chemical reactions. The objects of study are the structure and the metabolic pathways involved in the transformations of cell components, such as proteins, carbohydrates, lipids, nucleic acids, and other biomolecules. Moreover, the main hormones and their role in the regulation of metabolism will be described. Finally, the main components of the foods will be described in relation to a healthy diet.

PREREQUISITES

Basic knowledge of biology and chemistry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35592

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequeted
DEGREE in Medicine and Surgery
CONTACT: claudia.corbo@unimib.it

PROGRAM CODE: H4102D003M

BIOCHEMISTRY II (module of Basic Sciences- H4102D001)

LECTURER: RE FRANSCESCA

CONTENTS

The Biochemistry II module will describe in detail the integrated biochemistry of organs and tissues. It will provide useful knowledge for the best understanding of other medical disciplines and clinics.The main mechanisms of biochemical regulation of the metabolism of blood, of the digestive system, cardiovascular, hepatic, of the nervous system, of the bone tissue will be illustrated. The hormonal and metabolic regulation of the metabolism and the conditions that can lead to their alteration will be described.

PREREQUISITES

Basic knowledge of Biology and Chemistry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35593

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: francesca.re1@unimib.it

PROGRAM CODE: H4102D009

BIOSTATISTICS

MODULES: 1.Biostatistics (ref. H4102D028M)
2.Application of Biostatistics (ref. H4102D029M)

LECTURER: REBORA PAOLA

CONTENTS

This course aims to provide the basic tools of medical statistics that are at the basis of a proper methodological approach to a research project in medicine. The student will be able to calculate the main descriptive indexes and to appreciate the characteristics of a sample by descriptive statistics and plots. The student will be able to evaluate the accuracy of a diagnostic test by the sensitivity, specificity and predictive value indexes. The student will be able to calculate specific probabilities from Gaussian and Binomial distribution. The student will be able to calculate and interpret statistical tests for means and proportions and confidence intervals. The student will know how to critically read the methodology and results paragraphs of a clinical paper.

The student will be able to use statistical software (STATA) to produce the main descriptive statistics.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35561

SCMD
YEAR: 2
SEM: 1
ECTS: 4
DEGREE in Medicine and Surgery
CONTACT: paola.rebora@unimib.it

PROGRAM CODE: H4102D028M

BIOSTATISTICS (module of Biostatistics - H4102D009)

LECTURER: REBORA PAOLA

CONTENTS

This course aims to provide the basic tools of medical statistics that are at the basis of a proper methodological approach to a research project in medicine. The student will be able to calculate the main descriptive indexes and to appreciate the characteristics of a sample by descriptive statistics and plots. The student will be able to evaluate the accuracy of a diagnostic test by the sensitivity, specificity and predictive value indexes. The student will be able to calculate specific probabilities from Gaussian and Binomial distribution. The student will be able to calculate and interpret statistical tests for means and proportions and confidence intervals. The student will know how to critically read the methodology and results paragraphs of a clinical paper

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35562

SCMD

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: paola.rebora@unimib.it

PROGRAM CODE: H4102D085M

CARDIAC SURGERY (module of Cardiovascular diseases and Respiratory Sciences—H4102D024)

LECTURER: MERLO MAURIZIO

CONTENTS

The lessons will cover the most important aspects related to surgical treatment of ischemic, valvular and congenital heart diseases. Students will acquire the basic knowledge required to recognize the main cardiac pathologies suitable of surgery and the most important technical procedures.

PREREQUISITES

Basic knowledge of fundamentals of biology, genetics, morphology, histology, physiology of the cardiovascular system

WEBSITE https://elearning.unimib.it/course/info.php?id=35494

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: maurizio.merlo@unimib.it

PROGRAM CODE: H4102D084M

CARDIOLOGY (module of Cardiovascular diseases and Respiratory Sciences—H4102D024)

LECTURER: BADANO LUIGI, CARAVITA SERGIO, BILO GRZEGORZ MAREK

CONTENTS

The course will provide essential and up-to-date theoretical knowledge of the clinical diagnosis and management of a wide spectrum of cardiovascular diseases. The course presents the field of cardiology in a concise and practical manner, addressing the learning needs of medical students. The acquired knowledge will contribute to a better understanding of the causes, diagnosis, and treatment options of cardiac pathologies. Gender differences in epidemiology, clinical presentation, and prognosis will be also addressed.

PREREQUISITES

Basic cardiovascular pathology and diagnostics, fundamentals of human genetics, physiology, and pharmacology of cardiovascular system.

WEBSITE https://elearning.unimib.it/course/info.php?id=35493

SCMD	
YEAR:	4
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	luigi.badano@unimib.it sergio.caravita@unimib.it grzegorz.bilo1@unimib.it

PROGRAM CODE: H4102D024

CARDIOVASCULAR DISEASES AND RESPIRATORY SCIENCES

MODULES:

1.Cardiovascular Anatomy I	(ref. H4102D078M)
2.Cardiovascular Anatomy II	(ref. H4102D079M)
3.Phisiology	(ref. H4102D080M)
4.Pharmacology	(ref. H4102D081M)
5.Pathology	(ref. H4102D082M)
6.Diagnostics	(ref. H4102D083M)
7.Cardiology	(ref. H4102D084M)
8.Cardiac Surgery	(ref. H4102D085M)
9.Vascular Surgery	(ref. H4102D086M)
10.Emergency	(ref. H4102D087M)
11.Modeling and Simulation	(ref. H4102D088M)
12.Respiratory Sciences I	(ref. H4102D089M)
13.Respiratory Sciences II	(ref. H4102D090M)

LECTURER: BADANO LUIGI

CONTENTS

Please see each module.

PREREQUISITES

Please see each module.

WEBSITE https://elearning.unimib.it/course/info.php?id=35487

SCMD

YEAR: 4
SEM: 1
ECTS: 17
DEGREE in Medicine and Surgery
CONTACT: luigi.badano@unimib.it

PROGRAM CODE: H4102D054

CASE BASED LEARNING AND GENERAL CLINICAL PRACTICE

LECTURER: MANTOVANI LORENZO GIOVANNI

CONTENTS

The objectives of the course are to involve students in an early clinical activity designed to understand how to interact professionally with patients, starting from the most common clinical cases, experiencing a holistic approach to the patient and the diseases. Furthermore, to learn the principles of clinical reasoning and to acquire the basics of the professionalism, of patient-centred medicine and of clinical responsibility.

PREREQUISITES

Basic knowledge of anatomy, physiology, pharmacology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35568

SCMD
YEAR: 2
SEM: 2
ECTS: 7
DEGREE in Medicine and Surgery
CONTACT: lorenzo.mantovani@unimib.it

PROGRAM CODE: H4102D078M

CARDIOVASCULAR ANATOMY I (module of Cardiovascular diseases and Respiratory Sciences—H4102D024)

LECTURER: SENNI MICHELE

CONTENTS

The lessons will cover the most important aspects related to the embryological, anatomic and functional features of cardiovascular system, with focus on the anatomic description of the heart and major blood vessels. Students will acquire the basic knowledge required to recognize cardiac and vessels anatomy and understand the location, spatial relationships and function of its most important structures.

PREREQUISITES

Basic knowledge of fundamentals of biology, genetics, morphology, histology, physiology of the cardiovascular system .

WEBSITE https://elearning.unimib.it/course/info.php?id=35488

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: michele.senni@unimib.it

PROGRAM CODE: H4102D079M

CARDIOVASCULAR ANATOMY II (module of Cardiovascular diseases and Respiratory Sciences—H4102D024)

LECTURER: NOVELLI LUCA

CONTENTS

The lessons will cover the most important aspects related to the embryological, anatomic and functional features of chest wall and respiratory system, with focus on the anatomic description of the lung and pulmonary circulation. Students will acquire the basic knowledge required to recognize pleuropulmonary and chest anatomy and understand the location, spatial relationships and function of its most important structures including microscopic aspects.

PREREQUISITES

Basic knowledge of fundamentals of biology, genetics, morphology, histology, physiology of the cardiovascular and respiratory system.

WEBSITE https://elearning.unimib.it/course/info.php?id=35489

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: luca.novelli@unimib.it

PROGRAM CODE: H4102D006M

CELL AND MOLECULAR BIOLOGY I (module of "Fundamentals of Cell Biology and Genetics "- H4102D002)

LECTURER: INTRONA MARTINO

CONTENTS

The course will provide the essential theoretical knowledge of biology, also focusing on the possible future application in the medical field. The subjects of the course will provide the necessary knowledge to understand the vital processes, both on the cellular and molecular level.

Structure and function of the most important cellular macromolecules; DNA duplication and repair mechanisms; transcription and RNA processing; translation and protein sorting; transcriptional and post-transcriptional regulation; signal transduction pathways; molecular and cellular mechanisms which control the cell cycle, cellular growth and differentiation as well as cell-to-cell interactions.

PREREQUISITES

Basic sciences (chemistry, physics).

WEBSITE https://elearning.unimib.it/course/info.php?id=35601

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: martino.introna@unimib.it

PROGRAM CODE: H4102D007M

CELL AND MOLECULAR BIOLOGY II (module of Fundamentals of Cell Biology and Genetics - H4102D002)

LECTURER: MOLOGNI LUCA

CONTENTS

The course will provide the essential theoretical knowledge of biology focusing on the possible future application in the medical field.

PREREQUISITES

Basic sciences (chemistry, physics).

WEBSITE https://elearning.unimib.it/course/info.php?id=35602

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: Luca.mologni@unimib.it

PROGRAM CODE: F0901D081M

CELLULAR AND GENE THERAPY (module of Translational Approach To Onco-hematological Diseases- F0901D048)

LECTURER: BIONDI ANDREA, SERAFINI MARTA

CONTENTS

The aims of the Course is to provide an overview of the current and most relevant applications of biotech in the development of new treatment strategies. The two tracks of the course include the targeting treatment and the development of cellular and gene therapy. The first part will cover the process of identification of new potential targets for treatment by using high-throughout technologies , the screening of active molecules and the preclinical and clinical development. Diseases in the field of cancer will be taken as cases in point. The second part will present the pre clinical and clinical development of a product for cellular and gene therapy in the field of cancer, treatment of infections in immunocompromised hosts, and tissue regeneration. Emphasis will be given to the knowledge of the process of production under “GMP” conditions.

PREREQUISITES

Basic knowledge on pathology and immunology. Advanced knowledge in biochemistry, molecular biology and genetics.

WEBSITE https://elearning.unimib.it/course/info.php?id=37989

M

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: andrea.biondi@unimib.it
marta.serafini@unimib.it

PROGRAM CODE: H4102D001M

CHEMISTRY AND PROPEDEUTIC BIOCHEMISTRY I (module of Basic Sciences - H4102D001)

LECTURER: SMITH ANDREW JAMES

CONTENTS

In the first part of the course the principles of chemical kinetics and chemical equilibrium, redox reactions and related energy will be presented within the general frame of thermodynamics and electrochemistry, and finally the water self-ionization and the properties of acid/base and buffer solutions will be illustrated.

In the second part, the reactivity of the main classes of organic compounds, including isomerism and the stereo chemical concepts related to organic molecules containing asymmetric carbon atoms of the course will describe. The properties of the mains class of macromolecules of biological interest (proteins, lipids, carbohydrates and nucleic acids) will be illustrated. Basic knowledge of proteomics and of Imaging by MS focused on clinical applications will be provided.

PREREQUISITES

Basic mathematical knowledges
Basic chemistry knowledges
Basic Biology and chemistry knowledge
Basic knowledge of analytical science.

WEBSITE https://elearning.unimib.it/course/info.php?id=35591

SCMD

YEAR:	1
SEM:	1+2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	andrew.smith@unimib.it

PROGRAM CODE: H4102D006

CLERKSHIP I

LABORATORIES: 1.Chemistry and Propaedeutic Biochemistry II (ref. H4102D017M)
2.Cell and Molecular Biology (ref. H4102D018M)
3.Basic Computer Science (ref. H4102D019M)

LECTURER: MAGNI FULVIO

CONTENTS

Chemistry and Propaedeutic Biochemistry II: Practical laboratory activities useful for medical students. Practical laboratory activities with computers and personal applications. Group discussion of scientific papers useful for medical students.
Basic computer science: Practise the knowledge on computer related methodologies and technologies employed in medical informatics and to apply those methods in solving problems arising in different areas of medicine and the healthcare system (starting from personal use).
Cell and Molecular Biology: To learn the new advances in cell and molecular biology techniques, and critically evaluate their use in a clinical setting.

PREREQUISITES

The attended Chemistry, cell biology and propedeutical biochemistry courses. Basic knowledge in the use of computers. Attendance of the basic computer science course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35610

SCMD
YEAR: 1
SEM: 1
ECTS: 4
DEGREE in Medicine and Surgery
CONTACT: fulvio.magni@unimib.it

PROGRAM CODE: H4102D008

CLERKSHIP II

LABORATORIES: 1.Biochemistry (ref. H4102D023M)
2.Medical Physics (ref. H4102D024M)
3.Histology (ref. H4102D025M)

LECTURER: CAVALETTI GUIDO ANGELO, CORBO CLAUDIA, SALERNO DOMENICO

CONTENTS

Biochemistry: The students are introduced to the main biochemical techniques and to the instruments, reagents and materials needed for biochemistry assay (to analyse protein, lipid and sugar).

The students are introduced to the main histological techniques and to the instruments, reagents and materials needed for histological analysis.

Medical Physics: Students will receive the practical, theoretical and IT skills to analyse and to correctly understand the experimental data. This knowledge will form the primary basis for a rationale approach to the knowledge of medical sciences

Histology: Students will be able to the understand the basic histological techniques, to prepare histological samples for the observation of the structure and ultrastructure of the main biological tissues. There will be the supervision of qualified laboratory staff by using an "on field" approach.

PREREQUISITES

College-level scientific knowledge and basic knowledge of mathematics and analysis and IT.

WEBSITE https://elearning.unimib.it/course/info.php?id=35620

SCMD
YEAR: 1
SEM: 2
ECTS: 3
DEGREE in Medicine and Surgery
CONTACT: guido.cavaletti@unimib.it
claudia.corbo@unimib.it
domenico.salerno@unimib.it

PROGRAM CODE: H4102D017

CLERKSHIP III

CLERKSHIP: Microbiology and Virology (ref. H4102D049M)

LECTURER: COCUZZA CLEMENTINA ELVEZIA

CONTENTS

The course aims to provide the student with the fundamental principles and knowledge for the interpretation of the laboratory results in the diagnosis of infectious diseases.

* Laboratory methods for the diagnosis of infectious diseases.
* Laboratory methods for evaluating bacterial susceptibility to antimicrobial agents.
* Phenotypic and genotypic methods for microbial characterization and typing.
* Interpretation of Clinical Microbiology laboratory results.

PREREQUISITES

Knowledge on the content of the Microbiology and Virology module of the course on Basic Pathology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35550

SCMD
YEAR: 2
SEM: 2
ECTS: 2
DEGREE in Medicine and Surgery
CONTACT: clementina.cocuzza@unimib.it

PROGRAM CODE: H4102D055

CLERKSHIP IV

LABORATORIES:
1.Locomotor I (ref. H4102D192M)
2.Locomotor II (ref. H4102D193M)
3.Prosthesis and Rehabilitation (ref. H4102D061M)
4.Rheumatology (ref. H4102D062M)
5.Clinical Biochemistry (ref. H4102D063M)
6.Microbiology (ref. H4102D064M)

LECTURER: CHIODINI FEDERICO

CONTENTS

The goal of clerkship is the acquisition of practical skills related to diagnostics and to the clinic and to the treatment of the musculoskeletal system.

Clerkship program, with rotation in small groups (about max 10 students) in surgical specialties, general practitioner and in the emergency department:

* PBL / CBL
* Practice sessions with puppets or among students/teachers
* Attending clinical wards.

PREREQUISITES

Vertical track Locomotor attendance.

WEBSITE https://elearning.unimib.it/course/view.php?id=35573

SCMD
YEAR: 3
SEM: 1
ECTS: 9
DEGREE in Medicine and Surgery
CONTACT: N/A

PROGRAM CODE: H4102D058

CLERKSHIP V

LABORATORIES: 1.Oncology I (ref. H4102D073M)
2.Oncology II (ref. H4102D074M)
3.Hematology (ref. H4102D075M)
4.Infectious Diseases (ref. H4102D196M)
5.Dermatology (ref. H4102D197M)

LECTURER: RAMBALDI ALESSANDRO

CONTENTS

Oncology I Understanding the basis of immunological treatments in the context of solid tumours and the biology and clinical behavior of skin, gastrointestinal and lung tumours.

Oncology II : Understanding the basis of targeted therapies in the context of solid tumours and the biology and clinical behavior of breast, head and neck and gynaecological cancers.

.Hematology : (I) Understanding the biology and normal physiology of blood coagulation; Understanding the biology and clinical behaviour of hemorrhagic and thromboembolic diseases, and microangiopathy anemias; Principles and clinical practice of Blood transfusions. (II) Understanding the basis of hematopoietic stem cell transplantation; Understanding the biology and clinical behavior of Aplastic anemias, Paroxysmal Nocturnal Hemoglobinuria, hemolytic anemia and megaloblastic anemias.

Infectious Diseases: Bacterial infections in onco-hematologic malignancies; Fungal infections in hematologic malignancies; Viral complications of bone marrow trasplantation Vaccinations policies in onco-hematologic patients.

Dermatology: Understanding the clinical features and pathophysiology of cutaneous lymphomas, the clinical and histological features of basal cell and squamous cell carcinomas, drug-related dermatoses during the treatment of onco-haematologic malignancies, Understanding the importance of clinico-pathological correlations in the diagnosis of skin neoplasms.

WEBSITE https://elearning.unimib.it/course/view.php?id=35584

SCMD

YEAR: 3
SEM: 2
ECTS: 8
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D027

CLERKSHIP VI

LABORATORIES:
1.Biostatistics (ref. H4102D099M)
2.Cardiac Surgery (ref. H4102D094M)
3.Cardiovascular (ref. H4102D093M)
4.Endocrinology and Metabolic diseases (ref. H4102D076M)
5.Modeling and Simulation I (ref. H4102D096M)
6.Modeling and Simulation II (ref. H4102D097M)
7.Respiratory Sciences (ref. H4102D100M)
8.Vascular Surgery (ref. H4102D095M)

LECTURER: LORINI FERDINANDO

CONTENTS

Biostatistics: Recap on study designs, sampling methods, confidence intervals. Linear regression; Logistic regression; Survival analysis;

Cardiac Surgery: Students will acquire the basic knowledge required to recognize the main cardiac pathologies suitable of surgery and the most important technical procedures.

Cardiovascular: Understanding the basis and clinical behavior of ischemic heart disease, heart failure/assist device/heart transplant, cardiac arrhythmias, valvular heart disease, congenital heart disease

Endocrinology and Metalobolic Diseases: The endocrine system is a network of glands and organs that produce, store, and secrete hormones. It influences many aspects of the cardiovascular system, which include the heart and blood vessels. While hormones play a necessary role in maintaining healthy cardiovascular function, high of low levels of some can contribute to cardiovascular disease.

Modeling and Simulation I: Students will acquire the basic knowledge required to investigate blood flow distribution and the role of physical parameters in cardiovascular function

Modeling and Simulation II: N/A

Respiratory Sciences: Students will acquire the basic knowledge required to take history and recognize acute and chronic respiratory failure signs, obstructive and restrictive diseases signs and symptoms.

Vascular Surgery: The clerkships will cover the most important aspects related to surgical treatment of vascular pathologies as aneurysms, carotid disease, peripheral artery disease.

PREREQUISITES See course modules.

WEBSITE https://elearning.unimib.it/course/info.php?id=35478

SCMD

YEAR: 4
SEM: 1
ECTS: 12
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D031

CLERKSHIP VII

LABORATORIES:
1.Biostatistics (ref. H4102D099M)
2.Cardiac Surgery (ref. H4102D094M)
3.Cardiovascular (ref. H4102D093M)
4.Endocrinology and Metabolic diseases (ref. H4102D076M)
5.Modeling and Simulation I (ref. H4102D096M)
6.Modeling and Simulation II (ref. H4102D097M)
7.Respiratory Sciences (ref. H4102D100M)
8.Vascular Surgery (ref. H4102D095M)

LECTURER: LORINI FERDINANDO

CONTENTS

Biostatistics: Recap on study designs, sampling methods, confidence intervals. Linear regression; Logistic regression; Survival analysis;

Cardiac Surgery: Students will acquire the basic knowledge required to recognize the main cardiac pathologies suitable of surgery and the most important technical procedures.

Cardiovascular: Understanding the basis and clinical behavior of ischemic heart disease, heart failure/assist device/heart transplant, cardiac arrhythmias, valvular heart disease, congenital heart disease

Endocrinology and Metalobolic Diseases: The endocrine system is a network of glands and organs that produce, store, and secrete hormones. It influences many aspects of the cardiovascular system, which include the heart and blood vessels. While hormones play a necessary role in maintaining healthy cardiovascular function, high of low levels of some can contribute to cardiovascular disease.

Modeling and Simulation I: Students will acquire the basic knowledge required to investigate blood flow distribution and the role of physical parameters in cardiovascular function

Modeling and Simulation II: N/A

Respiratory Sciences: Students will acquire the basic knowledge required to take history and recognize acute and chronic respiratory failure signs, obstructive and restrictive diseases signs and symptoms.

Vascular Surgery: The clerkships will cover the most important aspects related to surgical treatment of vascular pathologies as aneurysms, carotid disease, peripheral artery disease.

PREREQUISITES See course modules.

WEBSITE https://elearning.unimib.it/course/info.php?id=35501

SCMD
YEAR: 4
SEM: 1
ECTS: 12
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D034

CLERKSHIP VIII

LABORATORIES:
1. Biosensors and Monitoring (ref. H4102D139M)
2. Clinical Psychology (ref. H4102D140M)
3. Neurology (ref. H4102D135M)
4. Neuroradiology (ref. H4102D183M)
5. Neurosurgery (ref. H4102D136M)
6. Psychiatry (ref. H4102D141M)

LECTURER: SESSA MARIA

CONTENTS

N/A

PREREQUISITES See course modules.

WEBSITE https://elearning.unimib.it/course/view.php?id=35463

SCMD

YEAR: 5
SEM: 1
ECTS: 12
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D079

CLERKSHIP IX

LABORATORIES: 1.Gastroenterology and Hepatology I (ref. H4102D156M)
2.Abdominal Surgery (ref. H4102D160M)
3.Craniofacial Diseases (ref. H4102D186M)

LECTURER: STEFANO FAGIUOLI

CONTENTS

N/A

PREREQUISITES See course modules.

WEBSITE https://elearning.unimib.it/course/info.php?id=35580

SCMD

YEAR: 5
SEM: 1
ECTS: 12
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D045

CLINICAL DECISION SUPPORT SYSTEMS

LECTURER: LANZARONE ETTORE

CONTENTS

Know and understand the clinical decision support systems from the physician's point of view, with particular reference to a critical analysis of the assumptions and the used data.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35624

SCMD

YEAR: 3
SEM: 1
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: ettore.lanzarone@unibg.it

PROGRAM CODE: H4102D133M

CLINICAL PSYCHOLOGY (module of "Neuroscience 2"- H4102D032)

LECTURER: STREPPARAVA MARIA GRAZIA, RAMPOLDI GIULIA

CONTENTS

Clinical psychology in the health system; Evidence Based clinical psychology interventions; counseling and psychotherapy; different psychotherapeutic approaches; risk and protective factor in the bio-psycho-social approach to psychopathology and treatment.

Clinical psychology in the Italian health system; Evidence Based clinical psychological interventions; Different types of psychological intervention: psychological support, psychoeducation, counseling and psychotherapy and the various types of settings (individual, group couple); the main psychotherapeutic approaches (cognitive, cognitie-behavioral, psychodynamic) PTSD treatment. Psychological risk factors and protective factors in the bio-psycho-social model and treatment.

PREREQUISITES

Previous medical internships. Communication skills module (Medicine and society course, 2nd year) or equivalent

WEBSITE https://elearning.unimib.it/course/info.php?id=35452

SCMD

YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: mariagrazia.streapparava@unimib.it

PROGRAM CODE: H4102D045

CLINICAL RESEARCH IN ONCOLOGY –From Bench to Bedside-

LECTURER: CAZZANIGA MARINA ELENA

CONTENTS

This elective course aims to train students on the different methodologies and objectives of applied clinical research in the field of cancer. In particular, the areas relating to laboratory and clinical research, the different types of clinical studies on humans will be explored, with a focus on phase 1 studies; finally, students will compete in an educational laboratory with the aim of implementing a draft of a Phase 1 clinical study in two oncological areas.

PREREQUISITES

Having attended the Onco-heatological vertical track.

WEBSITE https://elearning.unimib.it/course/info.php?id=35641

SCMD

YEAR: 3
SEM: 1 +2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: marina.cazzaniga@unimib.it

PROGRAM CODE: H4102D055M

CLINICS (module of "Locomotor System Diseases" - H4102D018)

LECTURER: BIGONI MARCO

CONTENTS

The course aims to provide students with the main knowledge about orthopaedics, traumatology and rheumatology. The programme provides a comprehensive overview of the basic clinical presentations and treatment options of patient presenting muscoloskeletal problems including metabolic bone diseases, rheumatologic disorders, skeletal and extraskeletal calcification/ossification syndrome, osteoarticular infections, overload syndroms of tendon, muscles and joints, osteonecrosis and osteoarthrosis, complex regional pain syndrome, basis of hand surgery, traumatology, principles of orthoplastic and microsurgery, diseases and injuries by site, paediatric orthopaedics.

Theory and practical skills to perform the basic clinical examination tests in general orthopaedics and traumatology.

PREREQUISITES

To adequately address the course, it is strongly suggested to refresh the macroscopic and histological muscoloskeletal anatomy and the knowledge of the physiology and biochemestry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35540

SCMD

YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marco.bigoni@unimib.it

PROGRAM CODE: H4102D152M

CONSERVATIVE DENTISTRY (module of "Head and Neck Diseases"- H4102D036)

LECTURER: MADDALONE MARCELLO

CONTENTS

Prevention of caries in adult and pediatric patients. Feeding and the administration of fluorides as a basis for caries prevention. The materials used in the care and prevention of dental caries. Diagnosis in conservative dentistry. Clinical examination; instrumental exams.Endodontics.

PREREQUISITES

Overcoming the examination of fourth year course

WEBSITE https://elearning.unimib.it/course/info.php?id=35458

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: maddalone.marcello@unimib.it

PROGRAM CODE: H4102D043M

CONTRAST MEDIA AND RADIOPHARMACEUTICAL (module of "Image Diagnostics"- H4102D014)

LECTURER: MORESCO ROSA MARIA

CONTENTS

The pharmacological aspects of diagnostics medicinal products. Topics include fundamental of pharmacokinetics, pharmacodynamics and regulatory aspects related to their use in Diagnostic imaging.

Pharmacology of Diagnostic Medicinal Products
Radiological contrast media: Chemical and pharmacological characteristics of biological relevance that differentiate contrast media; Main therapeutic indication and clinical and evidence based rational for the clinical use of contrast media; Main adverse event, procedures to predict, prevent and manage contrast media related adverse event. Pharmacovigilance. Radiopharmaceuticals: Nature and characteristics of radioisotopes, with specific reference to those used in diagnostic imaging; Fundamentals of radiochemistry, radiopharmaceuticals and radiopharmacology. Medicines for optical imaging: mechanism of action, instrumentation, kinetics of biodistribution and safety aspects. Risk benefit assessment for contrast media; Regulatory affairs relative to their classification and reimbursement.

PREREQUISITES

Basic knowledge on chemistry, physics and physiology and pharmacology that will be presented during the course when necessary .

WEBSITE https://elearning.unimib.it/course/info.php?id=35559

SCMD
YEAR: 2
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: rosa.moresco@unimib.it

PROGRAM CODE: H4102D195M

DERMATOLOGY (module of "Skin and Connective Tissue Diseases" - H4102D057)

LECTURER: CARUGNO ANDREA, GAMBINI DANIELE

CONTENTS

The performance of a dermatologic examination; the collection of anamnestic and physical data of a dermatological patient; understanding epidemiology and pathogenesis, clinical features, diagnosis, differential diagnosis, therapy and psico-social implications of the main dermatological diseases.

PREREQUISITES

Knowledge related to the preparatory courses as indicated in the regulations of the degree course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35571

SCMD

YEAR: 3
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: andrea.carugno@unimib.it

PROGRAM CODE: H4102D054M

DIAGNOSTICS (module of "Locomotor System Diseases" - H4102D018)

LECTURER: SIRONI SANDRO

CONTENTS

To provide the basic knowledge concerning the most important imaging modalities and their clinical use in the context of muscle-skeletal radiology. The role of conventional radiology in emergency clinical trials, and the role of cross-sectional imaging modalities will be assessed as well. The main aim of the course is to clarify how specific imaging techniques have to be employed in relation to the clinical issue.
Conventional X rays examinations of the skeletal structures in different clinical settings. Computed tomography (CT) and Magnetic Resonance Imaging (MRI) in the most common and relevant clinical circumstances, in traumatology, and orthopedic settings. Ultrasound examination as a possible diagnostic alternative in specific conditions.

PREREQUISITES

Basic knowledge of human anatomy, phisiology, and general pathology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35539

SCMD
YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: sandro.sironi@unimib.it

PROGRAM CODE: H4102D083M

DIAGNOSTICS (module of "Cardiovascular Diseases and Respiratory Sciences"- H4102D024)

LECTURER: SIRONI SANDRO

CONTENTS

The course will provide the essential theoretical knowledge of the key diagnostic tests used for the clinical identification and management of cardiovascular diseases. The acquired knowledge will contribute to a better understanding of the major indications and clinical value of each diagnostic tool. Students will also learn how to interpret basic findings of test results and cardiovascular reports.

Clinical cardiovascular exam; electrocardiogram; chest X-ray; echocardiographic techniques; cardiac computed tomography; cardiac magnetic resonance; scintigraphy; positron emission tomography; invasive hemodynamics; electrophysiology study; cardiac angiography and intracoronary imaging.

PREREQUISITES

Basic cardiovascular anatomy and physiology, cardiovascular and respiratory pathology and diagnostics.

WEBSITE https://elearning.unimib.it/course/info.php?id=35492

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: sandro.sironi@unimib.it

DIAGNOSTICS (module of "Neuroscience 1" - H4102D028)

LECTURER: BASSO GIANPAOLO

CONTENTS

Neuroradiology and imaging of normal brain and neurological disorders.

PREREQUISITES

Basic knowledge of neuroanatomy.

WEBSITE https://elearning.unimib.it/course/info.php?id=35526

SCMD

YEAR: 4
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: gianpaolo.basso@unimib.it

PROGRAM CODE: H4102D184M

DIAGNOSTICS (module of "Digestive Health" -H4102D043)

LECTURER: SIRONI SANDRO

CONTENTS

The main purpose of the course is to illustrate the potential of these imaging techniques in order to determine correct clinical management of the diseases.

Conventional X rays examination efficacy in various clinical settings. Computed tomography, and magnetic resonance will be extensively discussed as the pillars of gastroenterologic radiology. The potential of ultrasound examination will be shown.

PREREQUISITES

Basic knowledge of human anatomy, phisiology, and general pathology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35474

SCMD
YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: sandro.sironi@unimib.it

PROGRAM CODE: H4102D067M

DIAGNOSTICS AND RADIATION ONCOLOGY (module of "Onco-hematological Diseases"- H4102D020)

LECTURER: SIRONI SANDRO

CONTENTS

Imaging technique of choice for detection of the most common solid tumors in the central nervous system, thorax, and abdomen: the rationale.

Staging of the most common solid tumor as above: the key point of diagnostic imaging. Strength, and weakness of cross sectional imaging techniques. How to properly assess actual tumor spread in the view of optimal treatment planning.

Imaging follow up, and patient tailored therapy.

PREREQUISITES

Preparatory courses for Vertical Tracks .

WEBSITE https://elearning.unimib.it/course/info.php?id=35530

SCMD

YEAR: 3
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: sandro.sironi@unimib.it

PROGRAM CODE: H4102D043

DIGESTIVE HEALTH

MODULES:
1. Anatomy of the Digestive System (ref. H4102D142M)
2. Physiology (ref. H4102D143M)
3. Pharmacology (ref. H4102D144M)
4. Pathology (ref. H4102D145M)
5. Surgery (ref. H4102D148M)
6. Diagnostics (ref. H4102D184M)
7. Gastroenterology and Hepatology (ref. H4102D185M)

LECTURER: INVERNIZZI PIETRO,

CONTENTS

Please see each module.

PREREQUISITES

Please see each module.

WEBSITE https://elearning.unimib.it/course/view.php?id=35470

SCMD
YEAR: 5
SEM: 2
ECTS: 9
DEGREE in Medicine and Surgery
CONTACT: Pietro.invernizzi@unimib.it

PROGRAM CODE: H4102D150M

EAR, NOSE AND THROAT (module of "Head and Neck Diseases"- H4102D036)

LECTURER: GARAVELLO WERNER

CONTENTS

To identify the main features of the pricipal diseases of the Head and neck district by nosological, physiopathological and clinical study.

PREREQUISITES

Objectives of the first year courses

WEBSITE https://elearning.unimib.it/course/info.php?id=35456

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: werner.garavello@unimib.it

PROGRAM CODE: H4102D047M

EMERGENCY (module of "Basic Clinical Skills"- H4102D053)

LECTURER: LORINI FERDINANDO LUCA

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35565

SCMD

YEAR:	2
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	ferdinando.lorini@unimib.it

PROGRAM CODE: H4102D087M

EMERGENCY (module of "Cardiovascular Diseases and Respiratory Sciences" - H4102D024)

LECTURER: LORINI FERDINANDO LUCA

CONTENTS

The course will explain the most important clinical aspects and relative treatments of the following cardiac and respiratory emergencies:

1) Cardiocirculatory arrest
2) Cardiogenic Shock
3) Cardiac Tamponade
4) Acute Aortic Dissection
5) Pulmonary Embolism
6) Acute Respiratory Insufficiency

PREREQUISITES

Basic knowledge of biology, biochemistry, cardiac, vascular and respiratory anatomy, cardiac and respiratory physiology and pathophysiology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35496

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: ferdinando.lorini@unimib.it

PROGRAM CODE: H4102D113M

EMERGENCY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: FUMAGALLI ROBERTO

CONTENTS

The course provide students with the basics of resuscitation and anaesthesiology.
The student will know the main effects and / or complications of anesthetic drugs on the fetus and women pregnancy.

PREREQUISITES

None

WEBSITE https://elearning.unimib.it/course/info.php?id=35518

SCMD
YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: roberto.fumagalli@unimib.it

PROGRAM CODE: H4102D130M

EMERGENCY (module of "Neuroscience 2" - H4102D032)

LECTURER: CITERIO GIUSEPPE

CONTENTS

Coma
Traumatic brain injury
Postanoxic encephalopathy
Severe ischemic and hemorrhagic stroke
Status epilepticus
Brain death and organ donation
Postoperative neurosurgery
Neuromonitoring

PREREQUISITES

Basic knowledge of resuscitation and intensive care
Basic knowledge of neurology

WEBSITE https://elearning.unimib.it/course/info.php?id=35449

SCMD
YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giuseppe.citerio@unimib.it

PROGRAM CODE: H4102D029

ENDOCRINE KIDNEY AND URINARY TRACT DISEASES

MODULES:

1. Anatomy of the Endocrine System and Urinary Tract (ref. H4102D182M)
2. Endocrinology (ref. H4102D091M)
3. Emergency (ref. H4102D113M)
4. Metabolic Diseases (ref. H4102D092M)
5. Nephrology (ref. H4102D111M)
6. Pathology (ref. H4102D109M)
7. Pharmacology (ref. H4102D108M)
8. Physiology (ref. H4102D107M)
9. Urology (ref. H4102D112M)

LECTURER: DA POZZO LUIGI FILIPPO

CONTENTS

Please see each module.

PREREQUISITES

Please see each module.

WEBSITE https://elearning.unimib.it/course/view.php?id=35512

SCMD

YEAR: 4
SEM: 1+2
ECTS: 10
DEGREE in Medicine and Surgery
CONTACT: luigi.dapozzo@unimib.it

PROGRAM CODE: H4102D091M

ENDOCRINOLOGY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER TREVISAN ROBERTO

CONTENTS

The primary goal of the course is to provide students with the pathophysiologic basis to understand the clinical and surgical semeiotics and the physiopathology of endocrine system in order to make correlations between the inner mechanisms of diseases and their clinical expression. The student will be able to interpret symptoms, signs and laboratory tests as well as radiologic and endoscopic findings. Clinical tools to understand concepts of organ-limited disease, system involvement or systemic disease will be provided.

PREREQUISITES

Propaedeutic skills .

WEBSITE https://elearning.unimib.it/course/info.php?id=35519

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: roberto.trevisan@unimib.it

PROGRAM CODE: H4102D092

ENDOCRINOLOGY AND CANCER

LECTURER: ROSSINI ALESSANDRO

CONTENTS

The main goal of the course is to explore the close relationship between cancer and the endocrine system. The student will be able to understand how genetic traits regulating the activity of endocrine organs as well as the exposure to environmental factors interfering with the hormonal balance can influence the risk of cancer.

Moreover, an insight on the effect of cancer therapies on hormonal homeostasis, associated with development of endocrinological disease, will be provided.

PREREQUISITES

Propaedeutic skills

WEBSITE https://elearning.unimib.it/course/info.php?id=35639

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: Tbd

PROGRAM CODE: H4102D105

ENDOCRINOLOGY AND METABOLIC DISEASES

LECTURER: CASSIBBA SARA

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35652

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: Tbd

PROGRAM CODE: H4102D013M

ETHICS AND LAW (module of "Humanities"- H4102D005)

LECTURER: MOLASCHI VIVIANA

CONTENTS

The purpose of this course is to develop an understanding of the relationship between law and ethics in the health care field.

Outline of how law, regulation and governance mechanisms deal with medical practice and the guarantee and implementation of health-related rights, with particular regard to bioethical issues. Analysis of how they shape the organization and development of health care systems.

PREREQUISITES

There are no other special pre-requisites to be fulfilled before sitting the examination.

WEBSITE https://elearning.unimib.it/course/info.php?id=35606

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: viviana.molaschi@unimib.it

PROGRAM CODE: F0901D050

FROM BENCH TO BEDSIDE: TRANSLATIONAL APPROACH TO DISEASES

MODULES:
1.Liver Diseases (ref. F0901D095M)
2.Alterations of Iron Metabolism (ref. F0901D096M)
3.Gastro-intestinal Diseases (ref. F0901D097M)

LECTURER: BARISANI DONATELLA

CONTENTS

The aim of the Course is to provide the student with a critical knowledge of the technical instruments and strategies normally employed in defining the pathophysiology of the various disorders and possible new therapeutic approaches.

The aim of this course is to present several examples of diseases and their physiopathology, and the role of biotechnology in their diagnosis/ therapeutic approach. A general introduction on the methodologies employed to analyse the molecular mechanisms underlying the pathological processes will be provided.

PREREQUISITES

Advanced knowledge in genetics, biology and molecular biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=37993

M
YEAR: 2
SEM: 1
ECTS: 6
DEGREE in Biotechnology in Medicine
CONTACT: donatella.barisani@unimib.it

PROGRAM CODE: H4102D002

FUNDAMENTALS OF CELL BIOLOGY AND GENETICS

MODULES: 1.Cell and Molecular Biology I (ref. H4102D006M)
2.Genetics I (ref. H4102D008M)
LABORATORIES: 1.Cell and Molecular Biology II (ref. H4102D007M)
2.Genetics II (ref. H4102D009M)
LECTURER: BARISANI DONATELLA

CONTENTS

The course will provide the essential theoretical knowledge of biology and genetics, also focusing on the possible future application in the medical field. The subjects of the course will provide the necessary knowledge to understand the vital processes, both on the cellular and molecular level, as well as the laws of heredity and the processes involved in the generation of phenotypic diversity. The acquired knowledge will contribute to better understand the processes involved in normal and pathological situations.

PREREQUISITES

Basic sciences (chemistry, physics).

WEBSITE https://elearning.unimib.it/course/view.php?id=35600

SCMD
YEAR: 1
SEM: 1+2
ECTS: 11
DEGREE in Medicine and Surgery
CONTACT: donatella.barisani@unimib.it

PROGRAM CODE: H4102D087

FUNDAMENTALS OF HUMAN MORPHOLOGY

MODULES: 1.General Anatomy (ref. H4102D205M)
2. Regional Anatomy (ref. H4102D026M)
3.Histology (ref. H4102D021M)
LABORATORY: 1.Microscopic Anatomy (ref. H4102D022M)
LECTURER: CAVALETTI GUIDO

CONTENTS

The student will be able to communicate effectively with colleagues and to use and understand anatomical language appropriately. Knowledge of accepted general anatomical terminology will be achieved.
The general features of the systems further described in detail in "Cardiovascular and Respiratory diseases" and "Neuroscience I and II" will be addressed. Specific reference to clinical anatomy features will also be performed.
Students will be able to describe the structure and ultrastructure of the eukaryotic cell and the morphology correlate with the function of each organelle; then they will be able to describe the structure and morpho-functional characteristics of human tissues (epithelial, connective, muscle and nervous tissues) as well as to describe the main events of gametogenesis and early embryogenesis.
The student will be able to indicate the normal microscopic organization of the main organs of the human organism. The microscopic and functional structure of the organs of the digestive, respiratory, urinary, genital, lymphatic, nervous, endocrine and integumentary organs will be addressed in preparation to histopathological assessment.

PREREQUISITES

College-level scientific knowledge.

WEBSITE https://elearning.unimib.it/course/view.php?id=35615

SCMD
YEAR: 1
SEM: 2
ECTS: 8
DEGREE in Medicine and Surgery
CONTACT: guido.cavaletti@unimib.it

PROGRAM CODE: H4102D010

FUNDAMENTALS OF HUMAN PHYSIOLOGY

MODULES: 1.General Physiology I (ref. H4102D030M)
2.General Physiology II (ref. H4102D031M)

LECTURER: RIVOLTA ILARIA

CONTENTS

Please see each module.

PREREQUISITES

Anatomy, biology, genetics and phisics.

WEBSITE https://elearning.unimib.it/course/view.php?id=35657

SCMD

YEAR: 2
SEM: 1
ECTS: 4
DEGREE in Medicine and Surgery
CONTACT: ilaria.rivolta@unimib.it

PROGRAM CODE: H4102D185M

GASTROENTEROLOGY AND HEPATOLOGY (module of "Digestive Health" -H4102D043)

LECTURER: INVERNIZZI PIETRO, FAGIUOLI STEFANO, CARBONE MARCO,

CONTENTS

The course is based on the systematic presentation of physiological concepts underlying the functioning of the digestive tract. The mechanism leading to function imbalance cannot be appreciated without a deep understanding of the underlying biophysical and physiological mechanisms. Therefore, we will present such mechanisms that guarantee functions at the cellular, tissue, organ and apparatus level and at the integrated level.

PREREQUISITES

Fundamentals of Human Physiology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35475

SCMD
YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: pietro.invernizzi@unimib.it

PROGRAM CODE: F0901D097M

GASTRO-INTESTINAL DISEASES (module of "From Bench To Bedside: Translational Approach To Diseases" - F0901D050)

LECTURER: BARISANI DONATELLA

CONTENTS

The aims of the Course is to provide the student with a critical knowledge of the technical instruments and strategies normally employed in defining the pathophysiology of the various disorders and possible new therapeutic approaches.

The aim of this course is to present several examples of diseases and their physiopathology, and the role of biotechnology in their diagnosis/ therapeutic approach. A general introduction on the methodologies employed to analyse the molecular mechanisms underlying the pathological processes will be provided.

PREREQUISITES

Advanced knowledge in genetics, biology and molecular biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=37994

M

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: donatella.barisani@unimib.it

PROGRAM CODE: H4102D205M

GENERAL ANATOMY (module of "Fundamentals of Human Morphology"- H4102D087)

LECTURER: CAVALETTI GUIDO ANGELO

CONTENTS

The student will be able to communicate effectively with colleagues and to use and understand anatomical language appropriately. Knowledge of accepted general anatomical terminology will be achieved.

The general features of the systems further described in detail in "Cardiovascular and Respiratory diseases" and "Neuroscience I and II" will be addressed. Specific reference to clinical anatomy features will also be performed.

PREREQUISITES

College-level scientific knowledge.

WEBSITE https://elearning.unimib.it/course/info.php?id=35619

SCMD

YEAR: 1
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: guido.cavaletti@unimib.it

PROGRAM CODE: H4102D015M

GENERAL PSYCHOLOGY I (module of "Humanities"- H4102D005)

LECTURER: STREPPARAVA MARIA GRAZIA

CONTENTS

At the end of the course students:

-will have acquired an initial competence in identifying and differentiating the relational elements in the medical patient interaction;

-will have acquired the ability to recognize some basic mechanisms of one's relationship style.

-will recognize and describe the characteristics of the different attachment styles and the implications for the relationship of care with the patient;

-will know how to recognize and describe interpersonal motivational systems (activation, deactivation, related emotions).

* Interpersonal motivational systems
* Attachment in the relationship with patients
* Human dimension in doctor patient relationship

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35608

SCMD
YEAR: 1
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: mariagrazia.strepparava@unimib.it

PROGRAM CODE: H4102D030M

GENERAL PHYSIOLOGY I (module of "Fundamentals of Human Physiology" - H4102D010)

LECTURER: RIVOLTA ILARIA

CONTENTS

The course is based on the systematic presentation of physiological concepts underlying the functions of the human body. The sequence of events leading to an imbalance of a specific function cannot be appreciated without a deep understanding of the basic biophysical and physiological mechanisms. Therefore, these mechanisms that guarantee functions at the cellular and tissue level will be presented. In particular, membrane transports, neuronal, muscular and cardiac cell excitability, the physiology of sensory systems, the motor control and muscle contraction will be analyzed.

* Transports across the cell membranes
* Calcium homeostasis
* Neuromuscular junction. Physiology of the contraction in smooth and striated muscles
* Electric activity of the heart (introduction to ECG)
* Control of extracellular volume and osmolarity. Starling hypothesis

PREREQUISITES

Anatomy, biology, genetics and phisics.

WEBSITE https://elearning.unimib.it/course/info.php?id=35658

SCMD
YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: ilaria.rivolta@unimib.it

PROGRAM CODE: H4102D031M

GENERAL PHYSIOLOGY II (module of "Fundamentals of Human Physiology "- H4102D010)

LECTURER: SANCINI GIULIO ALFREDO

CONTENTS

The course is based on the systematic presentation of physiological concepts underlying the functions of the human body. The sequence of events leading to an imbalance of a specific function cannot be appreciated without a deep understanding of the basic biophysical and physiological mechanisms. Therefore, these mechanisms that guarantee functions at the cellular and tissue level will be presented. In particular, membrane transports, neuronal, muscular and cardiac cell excitability, the physiology of sensory systems, the motor control and muscle contraction will be analyzed.

* Transports across the cell membranes
* Physiology of the body barriers
* Cell excitability and neurotransmission. Integration of synaptic inputs
* Electric activity of the brain (introduction to EEG)
* Emodynamics
*

PREREQUISITES

Anatomy, biology, genetics and phisic.

WEBSITE https://elearning.unimib.it/course/info.php?id=35659

SCMD

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giulio.sancini@unimib.it

GENERAL PSHYCOLOGY I (module of "Humanities"- H4102D005)

LECTURER: MARIA GRAZIA STREPPARAVA

CONTENTS

Interpersonal motivational systems

Attachment in the relationship with patients

Human dimension in doctor patient relationship

At the end of the course students:

* will have acquired an initial competence in identifying and differentiating the relational elements in the medical patient interaction;
* will have acquired the ability to recognize some basic mechanisms of one's relationship style.
* will recognize and describe the characteristics of the different attachment styles and the implications for the relationship of care with the patient;
* will know how to recognize and describe interpersonal motivational systems (activation, deactivation, related emotions).

PREREQUISITES

N/A.

WEBSITE https://elearning.unimib.it/course/info.php?id=35608

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: mariagrazia.strepparava@unimib.it

PROGRAM CODE: H4102D016M

GENERAL PSHYCOLOGY II (module of "Humanities"- H4102D005)

LECTURER: BANI MARCO

CONTENTS

To develop the ability to recognize and distinguish relational elements in doctor-patient interactions.

To become aware of the personal mechanisms of relational functioning.

At the end of the course the student must be able to:

* provide a definition of emotional regulation;
* describe the modal model of emotion regulation and its phases; provide professional examples of the use of different strategies;
* describe the main features of the basic emotions approach and the conceptual act model;
* knowing how to describe the concept of "difficult patient" in terms of the narrative of the patient.

PREREQUISITES

N/A.

WEBSITE https://elearning.unimib.it/course/info.php?id=35609

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marco.bani1@unimib.it

PROGRAM CODE: H4102D190M

GENERAL SURGERY (module of "Basic Clinical Skills" - H4102D053)

LECTURER: COLLEDAN MICHELE

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35566

SCMD

YEAR: 2
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: michele.colledan@unimib.it

PROGRAM CODE: H4102D008M

GENETICS I (module of "Fundamentals of Cell Biology and Genetics"- H4102D002)

LECTURER: BARISANI DONATELLA

CONTENTS

The course will provide the essential theoretical knowledge of biology and genetics, also focusing on the possible future application in the medical field. The subjects of the course will provide the necessary knowledge to understand the vital processes, both on the cellular and molecular level, as well as the laws of heredity and the processes involved in the generation of phenotypic diversity. The acquired knowledge will contribute to better understand the processes involved in normal and pathological situations.

PREREQUISITES

Basic sciences (chemistry, physics).

WEBSITE https://elearning.unimib.it/course/info.php?id=35603

SCMD

YEAR:	1
SEM:	1+2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	donatella.barisani@unimib.it

GENETICS II (module of Fundamentals of Cell Biology and Genetics - H4102D002)

LECTURER: MOLOGNI LUCA

CONTENTS

Understand the methods employed in genetic analysis and their applications both within families and in the general population.

Students will perform "hands on" laboratory work. In particular they will learn:

DNA or RNA extraction

PCR and agarose gel electrophoresis

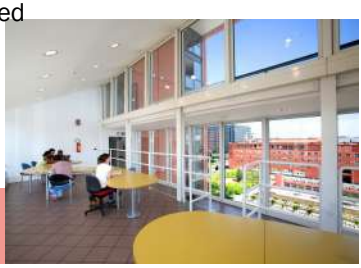
PREREQUISITES

Basic sciences (chemistry, physics).

WEBSITE https://elearning.unimib.it/course/info.php?id=35604

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: luca.mologni@unimib.it



PROGRAM CODE: F0901D049

GENETICS AND REPRODUCTION

LECTURER: BENTIVEGNA ANGELA

CONTENTS

The aims of the course is to provide the student with up to date knowledge on 1) the pathogenetic mechanisms underlying different human genetic pathological conditions; 2) genetic markers in the field of prevention, population screening, diagnosis and prognosis of genetic diseases; 3) risk and predisposition to human genetic diseases; 4) genes for the determination of sex; 5) the physiopathology of human reproduction; 6) human gametes and their use for diagnostic-therapeutic purposes in medically assisted procreation.

The course will increase knowledge of Medical Genetics, Genetics of Reproduction; Physiopathology of Reproduction, Gametes and embryology.

PREREQUISITES

Advanced knowledge in Human Genetics and cell biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=37992

M

YEAR: 2
SEM: 1
ECTS: 6
DEGREE in Biotechnology in Medicine
CONTACT: angela.bentivegna@unimib.it

PROGRAM CODE: H4102D047

GLOBAL PEDIATRIC MEDICINE AND COOPERATION

LECTURER: BIONDI ANDREA

CONTENTS

To provide an overview on medical problems and show initiatives and information about real experiences.

To Illustrate programs related to the child health promotion in developing Countries.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35626

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: andrea.biondi@unimib.it

PROGRAM CODE: H4102D036

HEAD AND NECK DISEASES

LABORATORIES:
1.Conservative Dentistry (ref. H4102D152M)
2.Ear, Nose and Throat (ref. H4102D150M)
3.Maxillofacial Surgery (ref. H4102D149M)
4. Ocular Diseases (ref. H4102D153)M)
5. Periodontology (ref. H4102D151M)

LECTURER: MARCELLO MADDALONE

CONTENTS

See course modules

PREREQUISITES

See course modules.

WEBSITE https://elearning.unimib.it/course/info.php?id=35454

SCMD

YEAR: 5
SEM: 2
ECTS: 8
DEGREE in Medicine and Surgery
CONTACT: marcello.maddalone@unimib.it

PROGRAM CODE: H4102D014M

HEALTH ECONOMICS (module of "Humanities"- H4102D005)

LECTURER: MARTINI GIANMARIA

CONTENTS

The course provides knowledge on the main economic features of the health care sector, both from the demand and supply side. Health care is one of the most important sector within modern economic systems, since it involves a large amount of public and/or private resources, and for its impact on the quality of life of population, and in turn on economic growth. It is essential to learn the key factors affecting the demand and the supply of health care and how to efficiently utilize the growing resources demanded by the population.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35607

SCMD

YEAR: 1
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: gianmaria.martini@unimib.it

PROGRAM CODE: H4102D069M

HEMATOLOGY (module of "Onco-hematological Diseases"- H4102D020)

LECTURER: FALANGA ANNA, RAMBALDI ALESSANDRO

CONTENTS

HEMATOLOGY I (Falanga): Clinical approach to the ambulatory patient presenting with hemorrhagic symptoms ;Clinical approach to the ambulatory patient presenting with thrombotic symptoms ; Management of the outpatient anticoagulation clinics; Laboratory diagnosis of coagulation disorders; Apheretic therapies; Blood transfusion therapy; Phlebotomy; Plasma exchange treatments

HEMATOLOGY II (Rambaldi): Master genes regulating normal hematopoiesis, biology of hematopoietic growth factors. Morphology and immunology of hematopoietic progenitor cells. Morphology of mature peripheral blood cells; Classification of anemias;
Molecular genetics, histopathology, WHO classification and clinical findings of Hodgkin and Non-Hodgkin Lymphomas; Molecular genetics and clinical findings of Multiple Myeloma and other plasma cell dyscrasias; Molecular genetics, histopathology, WHO classification and clinical findings of Chronic myeloproliferative disorders ; Molecular genetics, histopathology, WHO classification and clinical findings of Myelodysplastic syndromes and acute myeloid leukemias ;Molecular genetics, histopathology, WHO classification and clinical findings of Acute and chronic lymphocytic leukaemia.

PREREQUISITES

Basic Clinical Skills course

WEBSITE https://elearning.unimib.it/course/info.php?id=35532

SCMD

YEAR:	3
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	anna.falanga@unimib.it

PROGRAM CODE: H4102D021M

HISTOLOGY (module of "Fundamentals of Human Morphology" - H4102D087)

LECTURER: CAROZZI VALENTINA ALDA

CONTENTS

Students will be able to describe the structure and ultrastructure of the eukaryotic cell and the morphology correlate with the function of each organelle; then they will be able to describe the structure and morpho-functional characteristics of human tissues (epithelial, connective, muscle and nervous tissues) as well as to describe the main events of gametogenesis and early embryogenesis.

PREREQUISITES

College-level scientific knowledge.

WEBSITE https://elearning.unimib.it/course/info.php?id=35616

SCMD

YEAR: 1
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: valentina.carozzi1@unimib.it

PROGRAM CODE: H4102D155M

HTA (module of "Legal Medicine and HTA"- H4102D037)

LECTURER: MALIGHETTI PAOLO

CONTENTS

The course provides students with principle, concepts and methods employed in the technology assessment procedures. Understanding of the multidimensional approaches involved in the HTA, including biostatistics and economic methodology employed in order to assess the Overall Strength of Evidence.

PREREQUISITES

There are no mandatory courses however students will benefit from having undertaken "biostatistics", "health economics" and "Turning Clinical Experience Into Research Projects".

WEBSITE https://elearning.unimib.it/course/info.php?id=35462

SCMD

YEAR:	5
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	tbd

PROGRAM CODE: H4102D005

HUMANITIES

MODULES:
1.Ethics and Law (ref. H4102D013M)
2.Health Economics (ref. H4102D014M)
3.General Psychology I (ref. H4102D015M)
4.General Psychology II (ref. H4102D016M)

LECTURER: MARTINI GIANMARIA

CONTENTS

Outline of how law, regulation and other governance mechanisms deal with the organization and development of health care systems, medical practice and health related rights. Health care institutions and organizations, Demand and Supply in health care, Regulation, public and private organizations, Economic evaluation in health care.
Psychological factors in health and illness.

PREREQUISITES

From 1th year of Medical School.

WEBSITE https://elearning.unimib.it/course/view.php?id=35605

SCMD
YEAR: 1
SEM: 1+2
ECTS: 8
DEGREE in Medicine and Surgery
CONTACT: gianmaria.martini@unimib.it

PROGRAM CODE: H4102D014

IMAGE DIAGNOSTICS

MODULES: 1.Instrumentation for Diagnostic Imaging and Radiotherapy (ref. H4102D042M)
2.Contrast Media and Radiopharmaceutical (ref. H4102D043M)
3.Radiological Anatomy (ref. H4102D044M)

LECTURER: SIRONI SANDRO

CONTENTS

Acquisition of knowledge related to:

* X-ray based, US-based, Magnetic Resonance, Nuclear Medicine and hybrid diagnostic imaging instrumentation
* Radiotherapy instrumentation
* Pharmacological aspects of diagnostics medicinal products, including fundamental of pharmacokinetics, pharmacodynamics and regulatory aspects related to their use in Diagnostic imaging.

Basic comprehension of the key anatomic reference structures, as an introduction to clinical interpretation of radiological images.

PREREQUISITES

Basic knowledge on chemistry, physics, human anatomy, physiology and pharmacology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35557

SCMD

YEAR: 2
SEM: 2
ECTS: 3
DEGREE in Medicine and Surgery
CONTACT: sandro.sironi@unimib.it

PROGRAM CODE: H4102D012M

IMAGING (module of "Basic Computer Science"- H4102D004)

LECTURER: REMUZZI ANDREA

CONTENTS

Knowledge of digital image generation and image processing technologies; structural quantification and functional analysis of images of biological structures, at macro and microscopic level. This will include image storage, processing by filtering, segmentation, registration, computational techniques for the functional evaluation of three-dimensional structures, as well as the practical use of software dedicated to the processing of medical images.

Fundamentals in medical device for digital image generation.
Numerical techniques for generation of digital images, storage and processing; Generation of surface models and graphical visualization, Processing of image data and structural quantification.

PREREQUISITES

Basic knowledge in mathematics, algebra and physics.

WEBSITE https://elearning.unimib.it/course/info.php?id=35599

SCMD

YEAR: 1
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: andrea.remuzzi@unimib.it

PROGRAM CODE: H4102D033M

IMMUNOLOGY I (module of Basic Pathology - H4102D011)

LECTURER: FOTI MARIA

CONTENTS

The aim of the course is to give the basic knowledge of the structural and molecular mechanisms of the immune system. The immune system is an integrated set of molecules and cells that work in a coordinated way to maintain the body's homeostasis and protect it from foreign agents, such as microorganisms and their products.

The course will address the dynamics and complexity of humoral and cell-mediated immune responses and the main alterations of the mechanisms of immune-mediated diseases. At the end of the course the student will be able to describe: the organization of the immune response towards the different types of insults; the peculiarities of the different components of the immune system; the main pathological mechanisms of immune-mediated diseases.

PREREQUISITES

Knowledge of the introductory courses indicated in the regulation of the degree course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35554

SCMD

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: maria.foti@unimib.it

PROGRAM CODE: H4102D034M

IMMUNOLOGY II (module of Basic Pathology - H4102D011)

LECTURER: MARCHETTI MARINA

CONTENTS

The Immunology II course provides students with the theoretical knowledge of some basic cell and molecular immunology laboratory techniques.

The course will provide skills on the preparation of the sample to be analyzed, as well as immunology techniques. At the end of the course the student will be able to understand how some laboratory techniques work.

PREREQUISITES

Knowledge related to basic immunology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35553

SCMD	
YEAR:	2
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	marina.marchetti@unimib.it

PROGRAM CODE: H4102D056

INFECTIOUS DISEASES

LECTURER: PUOTI MASSIMO, RIZZI MARCO

CONTENTS

- Principles of epidemiology, diagnosis, treatment and prevention of Infectious Diseases
- By the end of the course, the student will be able to:
- Describe the etiology, the epidemiology (including the route of transmission), the clinical picture and the natural course of the principal infectious diseases and infective syndromes
- Integrate such knowledges with the choice of the appropriate diagnostic path for each disease or syndrome (including anamnesis, identification of relevant symptoms and signs, laboratory assessment, radiological tests, diagnosis of complication and differential diagnosis)
- Describe the therapeutic and preventive measures for the principal infectious diseases and infective syndromes
- Know the fundamentals of antimicrobial chemotherapy of the most important infectious diseases

PREREQUISITES

Knowledge of the introductory courses indicated in the degree course regulations

WEBSITE https://elearning.unimib.it/course/info.php?id=35569

SCMD

YEAR: 3
SEM: 2
ECTS: 3
DEGREE in Medicine and Surgery
CONTACT: massimo.puoti@unimib.it
marco.rizzi@unimib.it

PROGRAM CODE: H4102D096

INFLAMMATORY BOWEL DISEASES (MICI)

LECTURER: CARBONE MARCO

CONTENTS

The course is focused on the diagnosis and therapeutich management of patients with inflammatory bowel disease. The students will be exposed to a variety of expertice in an interactive format. There will be experts in the field of basic science, clinical management, radiology, GI endoscopy, bowel pathology focused on ulcerative colitis and Crohn's disease

PREREQUISITES

∗From the 4th year of the course of Medicine and Surgery

WEBSITE https://elearning.unimib.it/course/info.php?id=35643

SCMD
YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: marco.carbone@unimib.it

PROGRAM CODE: H4102D042M

INSTRUMENTATION FOR DIAGNOSTIC IMAGING AND RADIOTHERAPY (module of "Image Diagnostics"- H4102D014)

LECTURER: GILARDI MARIA CARLA

CONTENTS

Diagnostic imaging instrumentation: :

* X-ray imaging: revision of physical principles and image formation; multislice CT, cone beam CT, mammography, angiography
* Magnetic Resonance Imaging: revision of physical principles and T1/T2 image formation; diffusion weighted and perfusion weighted MRI, fMRI, spectroscopy
* Echography: physical principles and image formation; echographic probes
* Nuclear Medicine Imaging: revision of physical principles and image formation; PET/CT and PET/RM hybrid instrumentation

Radiotherapy instrumentation:

* Linear accelerator and components
* Intensity Modulated Radiotherapy (IMRT), Image Guided Radiotherapy (IGRT), tomotherapy
* Cyber knife, gamma knife.

PREREQUISITES

* Physics basic knowledge.

WEBSITE https://elearning.unimib.it/course/info.php?id=35558

SCMD

YEAR:	2
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	maria.gilardi@unimib.it

PROGRAM CODE: H4102D189M

INTERNAL MEDICINE (module of "Basic Clinical Skills" - H4102D053)

LECTURER: FAGIUOLI STEFANO

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35567

SCMD

YEAR: 2
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: stefano.fagiuoli@unimib.it

PROGRAM CODE: H4102D069

INTERNSHIP IN ANATOMY

LECTURER: CAROZZI VALENTINA ALDA

CONTENTS

Understanding and practice of:

Main histological techniques

Instruments, reagents and materials needed for an histological analysis

Confocal microscopy

Electron microscopy

Live imaging for tissue colture

PREREQUISITES

To attend to the Histology class and the clerkship 2 of histology .

WEBSITE https://elearning.unimib.it/course/info.php?id=35632

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: valentina.carozzi1@unimib.it

PROGRAM CODE: H4102D074

INTERNSHIP IN ANESTHESIOLOGY E RESUSCITATION A

LECTURER: LORINI FERDINANDO LUCA

CONTENTS

Observe the skills necessary for being an Anesthesiologist and Intensive care physician and learn the fields of application of these skills through daily internship. Total 10 or 20 hours of internship in one week.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35637

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: ferdinando.lorini@unimib.it

PROGRAM CODE: F0901D075

INTERNSHIP IN ANESTHESIOLOGY E RESUSCITATION B

LECTURER: LORINI FERDINANDO LUCA

CONTENTS

Observe the skills necessary for being an Anesthesiologist and Intensive care physician and learn the fields of application of these skills through daily internship. Total 10 or 20 hours of internship in one week.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35638

SCMDYE
AR: 3
SEM: 1+2
ECTS: 2
DEGREE in Medicine and Surgery
CONTACT: ferdinando.lorini@unimib.it

PROGRAM CODE: H4102D071

INTERNSHIP IN CARDIOLOGY A

LECTURER: BADANO LUIGI

CONTENTS

Cardiological history collection

Cardiology physical examination

Electrocardiography

Ambulatory (Holter) ECG

Exercise stress test

Tilting test

Echocardiography

Cardiology stepward

Rehabilitation

PREREQUISITES

Having attended the cardiology and respiratory vertical track lessons. Having attended the cardiology internship A

WEBSITE https://elearning.unimib.it/course/info.php?id=35634

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: luigi.badano@unimib.it

PROGRAM CODE: H4102D072

INTERNSHIP IN CARDIOLOGY B

LECTURER: BADANO LUIGI

CONTENTS

Coronary care unit

Transesophageal echocardiography

Cardiac catheterization and coronary angiography

Exercise cardiac catheterization

Coronary angioplasty

Electrophysiology study

Pace-maker, implantable cardioverter defibrillator, cardiac resynchronization device implantation

Pulmonary vein ablation procedure

PREREQUISITES

Having attended the cardiology and respiratory vertical track lessons. Having attended the cardiology internship A

WEBSITE https://elearning.unimib.it/course/info.php?id=35635

SCMDYE
AR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: luigi.badano@unimib.it

PROGRAM CODE: H4102D072

INTERNSHIP IN CARDIOLOGY E TECHNOLOGY

LECTURER: CARAVITA SERGIO

CONTENTS

Basis, applications and implications of advanced echocardiography, gas-exchange analysis and invasive hemodynamics for the characterization of patients' profiles in the modern era.

PREREQUISITES

Basis of physiology and of cardiovascular medicine

WEBSITE https://elearning.unimib.it/course/info.php?id=35636

SCMD
YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: sergio.caravita@unimib.it

PROGRAM CODE: H4102D107

INTERNSHIP IN DERMATOLOGY– UOC DERMATOLOGIA PG XXIII- HOSPITAL BERGAMO

LECTURER: CARUGNO ANDREA

CONTENTS

The student will work with the doctor-tutor during his or her working day in the dermatology department, in the first and second level outpatient departments or in the inpatient section.

PREREQUISITES

Basic Clinical Skills course.

It is recommended that the student has already passed the Skin and connective tissue disease examination.

WEBSITE https://elearning.unimib.it/course/info.php?id=35655

SCMDYE
AR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: andrea.carugno@unimib.it

PROGRAM CODE: H4102D070

INTERNSHIP IN GASTROENTEROLOGY

LECTURER: CARBONE MARCO

CONTENTS

* Clinical approach of patients presenting with advanced liver disease in the inpatient and outpatient setting
* Clinical approach of patients presenting with chronic biliary conditions in the inpatient and outpatient setting
* Clinical approach of patients with inflammatory bowel disease in the inpatient and outpatient setting
* Clinical approach to the liver transplant recipient
* Interventional hepatology (paracentesis, thoracentesis, TIPPS placement, RFA, TACE)
* Laboratory diagnosis of autoimmune liver diseases
* Gastrointestinal endoscopy

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35633

SCMD
YEAR: 3
SEM: 1+2
ECTS: 2
DEGREE in Medicine and Surgery
CONTACT: marco.carbone@unimib.it

PROGRAM CODE: H4102D101

INTERNSHIP IN IMMUNOHEMATOLOGY AND TRANSFUSION MEDICINE PG XXIII HOSPITAL BERGAMO

LECTURER: FALANGA ANNA

CONTENTS

* Clinical approach to the ambulatory patient presenting with hemorrhagic symptoms
* Clinical approach to the ambulatory patient presenting with thrombotic symptoms
* Management of the outpatient anticoagulation clinics
* Laboratory diagnosis of coagulation disorders
* Aphaeretic therapies
* Blood transfusion therapy
* Phlebotomy
* Plasma exchange treatments

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35648

SCMDYE
AR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: anna.falanga@unimib.it

PROGRAM CODE: H4102D109

INTERNSHIP IN INFECTIOUS DISEASES – UOC MALATTIE INFETTIVE NIGUARDA HOSPITAL MILANO

LECTURER: PUOTI MASSIMO

CONTENTS

Principles of epidemiology, diagnosis, treatment and prevention of Infectious Diseases

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35654

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: massimo.puoti@unimib.it

PROGRAM CODE: H4102D099

INTERNSHIP IN INFECTIOUS DISEASES – UOC MALATTIE INFETTIVE PGXXIII HOSPITAL BERGAMO

LECTURER: RIZZI MARCO

CONTENTS

The student will attend the Infectious Diseases department (outpatient clinic and Infectious Diseases unit).
Each student will be assigned, on a daily basis, to an infectious diseases physician for the daily working activities. In the outpatient clinic, the student will have the opportunity to participate to specific outpatient clinics (i.e. HIV, hepatology, bone infections, tuberculosis, sexually transmitted diseases). In the inpatient section the student will participate to ward round (COVID patients and other infective acute syndromes).

PREREQUISITES

Basic Clinical Skills course. It is recommended that the student has already passed the Infectious diseases examination.

WEBSITE https://elearning.unimib.it/course/info.php?id=35646

SCMD
YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: marco.rizzi@unimib.it

PROGRAM CODE: H4102D067

INTERNSHIP IN MICROBIOLOGY

LECTURER: FARINA CLAUDIO FRANCESCO

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35630

SCMD
YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: claudio.farina@unimib.it

PROGRAM CODE: H4102D103

INTERNSHIP IN NEPHROLOGY - UOC NEFROLOGIA PGXXIII HOSPITAL BERGAMO

LECTURER: CARRARA CAMILLO

CONTENTS

This internship provides supervised clinical education in kidney diseases management, including clinical management, exam and procedural skills, interpretation of diagnostic data, patient counseling, development of diagnostic and management plans, and inter professional communication both in inpatient and outpatient setting.

PREREQUISITES

Attending lessons of the endocrine kidney and urinary track

WEBSITE https://elearning.unimib.it/course/info.php?id=35650

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: camillo.carrara@unimib.it

PROGRAM CODE: H4102D104

INTERNSHIP IN NEPHROLOGY - UOC UROLOGIA PGXXIII HOSPITAL BERGAMO

LECTURER: SACCA' ANTONINO

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35651

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: antonino.sacca@unimib.it

PROGRAM CODE: H4102D100

INTERNSHIP IN ONCO-HEMATOLOGICAL DISEASES - PGXXIII HOSPITAL BERGAMO

LECTURER: RAMBALDI ALESSANDRO

CONTENTS

This internship provides supervised clinical education in onco-hematological diseases management, including clinical management, exam and procedural skills, interpretation of diagnostic data, patient counseling, development of diagnostic and management plans, and inter professional communication both in inpatient and outpatient setting.

PREREQUISITES

Examination of the onco-hematologic vertical track

WEBSITE https://elearning.unimib.it/course/info.php?id=35647

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D108

INTERNSHIP IN ONCOLOGY - UOC CENTRO RICERCA FASE 1 (Phase 1 Research Centre) SAN GERARDO HOSPITAL MONZA

LECTURER: CAZZANIGA MARINA ELENA

CONTENTS

Participation in study visits

Participation in site selection visits

Participation in department meetings where the various experiments are discussed.

PREREQUISITES

Examination of the onco-hematologic vertical track .

WEBSITE https://elearning.unimib.it/course/info.php?id=35656

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: marina.cazzaniga@unimib.it

PROGRAM CODE: H4102D102

INTERNSHIP IN ONCOLOGY - UOC ONCOLOGIA PGXXIII HOSPITAL BERGAMO

LECTURER: TONDINI CARLO ALBERTO

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35649

SCMD

YEAR:	3
SEM:	1+2
ECTS:	1
DEGREE in	Medicine and Surgery
CONTACT:	carlo.tondini@unimib.it

PROGRAM CODE: H4102D068

INTERNSHIP IN PALLIATIVE CARE

LECTURER: LIGUORI SIMEONE

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35631

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D063

INTERPROFESSIONAL EDUCATION (IPE) WITH STUDENTS OF HEALTHCARE DEGREE COURSES

LECTURER: CAPITONI ENRICA

CONTENTS

This elective course allows students to experience a first exposure to teamwork through an "immersion" in interprofessional teams. It offers the opportunity to reflect with students from other disciplines on the integration of values, attitudes and skills for safe professional practice.

PREREQUISITES

None

WEBSITE https://elearning.unimib.it/course/info.php?id=35628

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: enrica.capitoni@unimib.it

PROGRAM CODE: H4102D037

LEGAL MEDICINE AND HTA

MODULES: 1. Legal Medicine (ref. H4102D154M)
2.HTA (ref. H4102D155M)

LECTURER: SCHILLACI DANIELA ROBERTA, MALIGHETTI PAOLO

CONTENTS

Please see each module.

PREREQUISITES

None

WEBSITE https://elearning.unimib.it/course/info.php?id=35460

SCMD

YEAR: 5
SEM: 2
ECTS: 4
DEGREE in Medicine and Surgery
CONTACT: daniela.schillaci@unimib.it

PROGRAM CODE: H4102D154M

LEGAL MEDICINE (module of "Legal Medicine and HTA"- H4102D037)

LECTURER: SCHILLACI DANIELA ROBERTA

CONTENTS

Fundamentals rights and legislative principles related to legal medicine will be presented within the different tasks of forensic medicine: forensic pathology, thanatology and forensic autopsy, clinical forensic medicine, medical aspects of death; forensic anthropology, doctor-patient relation, expert opinions in court, welfare system, special legislations in medicine, medical and surgical malpractice.

PREREQUISITES

There are no mandatory courses however students will benefit from having undertaken "biostatistics", "health economics" and "Turning Clinical Experience Into Research Projects".

WEBSITE https://elearning.unimib.it/course/info.php?id=35461

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: daniela.schillaci@unimib.it

PROGRAM CODE: F0901D095M

LIVER DISEASES (module of "From Bench To Bedside: Translational Approach To Diseases" - F0901D050)

LECTURER: INVERNIZZI PIETRO

CONTENTS

The aim of this course is to present several examples of diseases and their physiopathology, and the role of biotechnology in their diagnosis/ therapeutic approach. A general introduction on the methodologies employed to analyse the molecular mechanisms underlying the pathological processes will be provided.

PREREQUISITES

Advanced knowledge in genetics, biology and molecular biology.

WEBSITE https://elearning.unimib.it/course/info.php?id=37996

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: pietro.invernizzi@unimib.it

PROGRAM CODE: H4102D018

LOCOMOTOR SYSTEM DISEASES

MODULES:
1. Anatomy of The Locomotor System (ref. H4102D050M)
2. Biochemistry (ref. H4102D051M)
3. Physiology (ref. H4102D052M)
4. Pathology (ref. H4102D053M)
5. Diagnostics (ref. H4102D054M)
6. Clinics (ref. H4102D055M)
7. Prosthesis and Rehabilitation (ref. H4102D056M)
8. Movement System Impairment (ref. H4102D057M)
9. Prosthesis and Rehabilitation in Practice (ref. H4102D058M)

LECTURER: BIGONI MARCO

CONTENTS

Please, see each module.

PREREQUISITES

Please, see each module.

WEBSITE https://elearning.unimib.it/course/info.php?id=35534

SCMD

YEAR: 3
SEM: 1
ECTS: 14
DEGREE in Medicine and Surgery
CONTACT: marco.bigoni@unimib.it

PROGRAM CODE: H4102D149M

MAXILLOFACIAL SURGERY (module of "Head and Neck Diseases"- H4102D036)

LECTURER: SOZZI DAVIDE

CONTENTS

The aim of the course is to allow the medical student with the support video conferences, to learn Pathology and Oncology of tumors of oral cavity and salivary glands, Cranio-facial traumatology, Pathology and surgery of cranio-facial malformations and dentofacial deformity.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35455

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: davide.sozzi@unimib.it

PROGRAM CODE: F0901D092M

MECHANISMS AND BIOMARKERS OF NEURONAL DAMAGE (module of Translational Approach To Neurological Disorsers - F0901D047)

LECTURER: FERRARESE CARLO, TREMOLIZZO LUCIO

CONTENTS

This course aims at contributing to the training of a medical biotechnologist able to integrate basic principles of neuroscience in order to understand the biological basis, main pathogenic mechanisms and experimental models regarding nervous system disorders. Models will be analyzed stressing critical aspects and role in the development of novel therapeutic strategies.

PREREQUISITES

Basic knowledge of anatomy and histology, physiology and general pathology and neuropharmacology.

Advanced knowledge of biochemistry, molecular biology and genetics.

WEBSITE https://elearning.unimib.it/course/info.php?id=37987

M

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: carlo.ferrarese@unimib.it

PROGRAM CODE: F0901D093M

MECHANISMS AND MODELS OF VASCULAR DISEASES (module of Translational Approach To Neurological Disorsers - F0901D047)

LECTURER: FROIO ALBERTO

CONTENTS

This course aims at contributing to the training of a medical biotechnologist able to integrate basic principles of vascular pathophysiology in order to understand the biological basis, main pathogenic mechanisms and experimental models regarding vascular diseases. Models will be analyzed stressing critical aspects and role in the development of novel therapeutic strategies.

PREREQUISITES

Basic knowledge of anatomy, histology, pathology and physiology.

WEBSITE https://elearning.unimib.it/course/info.php?id=37986

M

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: alberto.froio@unimib.it

PROGRAM CODE: H4102D004M

MEDICAL PHYSICS I (module of Basic Sciences - H4102D001)

LECTURER: MANTEGAZZA FRANCESCO

CONTENTS

The primary goal of the course is to provide students with the tools for the understanding of the complex reactions that represent the molecular basis of life, and with the fundamentals to identify the cause-effect relations of the most important chemical and physical processes for the curriculum and the work of a physician. This knowledge will form the primary basis for a rationale approach to the knowledge of medical sciences.

* Physics of radiation and biological effects of radiation.
* Biomechanics: Statics of the rigid body with applications to the human body.
* Optics: mechanism of the human visual system.

PREREQUISITES

Basic knowledges of mathematics and analysis.

WEBSITE https://elearning.unimib.it/course/info.php?id=35594

SCMD

YEAR:	1
SEM:	1+2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	francesco.mantegazza@unimib.it

PROGRAM CODE: H4102D005M

MEDICAL PHYSICS II (module of Basic Sciences - H4102D001)

LECTURER: SALERNO DOMENICO

CONTENTS

The primary goal of the course is to provide students with the tools for the understanding of the complex reactions that represent the molecular basis of life, and with the fundamentals to identify the cause-effect relations of the most important chemical and physical processes for the curriculum and the work of a physician. This knowledge will form the primary basis for a rationale approach to the knowledge of medical sciences.

* Electrostatics and electrodynamics: Electrical charges and electrical circuits.
* Fluid mechanics: ideal fluids and real fluids.

PREREQUISITES

Basic knowledges of mathematics and analysis.

WEBSITE https://elearning.unimib.it/course/info.php?id=35595

SCMD

YEAR: 1
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: domenico.salerno@unimib.it

PROGRAM CODE: H4102D013

MEDICINE AND SOCIETY

MODULES:
1.Society and Health I (ref. H4102D037M)
2.Society and Health II (ref. H4102D038M)
3.Behavioural Sciences, Communication Skills I (ref. H4102D039M)
4.Behavioural Sciences, Communication Skills II (ref. H4102D040M)
5.Behavioural Sciences, Communication Skills III (ref. H4102D041M)

LECTURER: STREPPARAVA MARIA GRAZIA

CONTENTS

Understanding the cultural, social and relational aspects of medicine, taking into account its history, evolution, sanitary structure, the main determinants of population health and risk factors of disease and patient-doctor relationship and the psychological variables affecting patient-doctor relationship. This knowledge is the basis for understanding and adequately placing individual medical practice in the contemporary and international social context.

PREREQUISITES

N/A.

WEBSITE https://elearning.unimib.it/course/view.php?id=35544

SCMD

YEAR: 2
SEM: 1+2
ECTS: 10
DEGREE in Medicine and Surgery
CONTACT: mariagrazia.strepparava@unimib.it

PROGRAM CODE: H4102D092M

METABOLIC DISEASES (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: TREVISAN ROBERTO

CONTENTS

In this course, the primary aim is to provide students an in depth understanding of diabetes pathophysiology, diabetes complications, diabetes prevention and diabetes therapy. Current and historic milestones of diabetes research, prevalence, diagnosis, and therapy are introduced throughout the course. During this course, we will also focus in particular on diabetic renal complications of type 1 and type 2 diabetes. A further aim of the course is also obesity and related complication and dyslipidemias.

PREREQUISITES

Propaedeutic skills .

WEBSITE https://elearning.unimib.it/course/info.php?id=35520

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: roberto.trevisan@unimib.it

PROGRAM CODE: H4102D032M

MICROBIOLOGY AND VIROLOGY (module of Basic Pathology - H4102D011)

LECTURER: Mc FADDEN JOHN JOSEPH

COCUZZA CLEMENTINA ELVEZIA

CONTENTS

The course aims to provide the students with knowledge on the fundamental principles of the microbial etiology and pathogenesis of the major human infectious diseases.

* General characteristics of microbial pathogens.
* Microbial genetics.
* Microbial pathogenesis.
* General characteristics of bacterial pathogens.
* Virulence factors and mechanisms of bacterial pathogenesis.
* Bacterial pathogens and associated diseases.
* Viral pathogens and associated diseases and viral-induced oncogenesis.
* Principles of laboratory diagnosis of infectious diseases.
* Antimicrobial agents and resistance.
* Strategies for infectious diseases prevention and control.
* Health Care Associated Infections.

PREREQUISITES

Knowledge on the principles of Cell Biology, Genetics and Anatomy as acquired during the first year of the degree course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35555

SCMD

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: johnjoseph.mcfadden@unimib.it
clementina.cocuzza@unimib.it

PROGRAM CODE: H4102D022M

MICROSCOPIC ANATOMY (module of "Fundamentals of Human Morphology" - H4102D087)

LECTURER: MEREGALLI CRISTINA

CONTENTS

The student will be able to indicate the normal microscopic organization of the main organs of the human organism. The microscopic and functional structure of the organs of the digestive, respiratory, urinary, genital, lymphatic, nervous, endocrine and integumentary organs will be addressed in preparation to histopathological assessment.

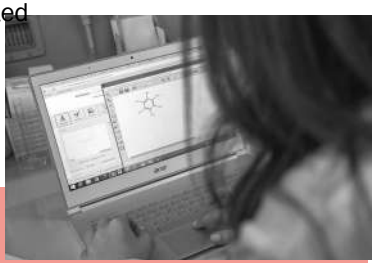
PREREQUISITES

College-level scientific knowledge.

WEBSITE https://elearning.unimib.it/course/info.php?id=35617

SCMD

YEAR: 1
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: cristina.meregalli@unimib.it



PROGRAM CODE: H4102D011M

MODELLING (module of "Basic Computer Science" - H4102D004)

LECTURER: RIZZI CATERINA

CONTENTS

The objective of the module is to enable students to acquire and deepen their knowledge about human modelling techniques starting from diagnostic images and 3D scanning systems up to 3D printing of body parts and organs.

The module contents concern: 1) techniques and tools to create and use 3D geometric model of human body and anatomical districts at different level of details; 2) simulation techniques; 3) technologies for the 3D printing of anatomical districts and organs.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35598

SCMD

YEAR:	1
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	caterina.rizzi@unimib.it

PROGRAM CODE: H4102D088M

MODELING AND SIMULATION (module of CARDIOVASCULAR DISEASES AND RESPIRATORY SCIENCES- H4102D024)

LECTURER: LANZARONE ETTORE

CONTENTS

The lessons cover the most important aspects related to cardiovascular fluid-dynamics (continuity and conservation laws. pressure drops, viscosity, shear stress) and the lumped parameter modeling of blood flow in vessels. Students will acquire the basic knowledge regarding the mathematical description of blood flow in vessels and the role of physical parameters.

PREREQUISITES

Basic knowledge of fundamentals of biology, morphology and physiology of the cardiovascular system.

WEBSITE https://elearning.unimib.it/course/info.php?id=35497

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: ettore.lanzarone@unimib.it

PROGRAM CODE: F0901D082M

MOLECULAR AND ONCOLOGICAL THERAPY (module of Translational Approach To Onco-hematological Diseases - F0901D048)

LECTURER: GAMBACORTI PASSERINI CARLO

CONTENTS

Students will be trained on the main targeting stragegies using small molecules in Hematology and Oncology.
In particular, the students will learn how to critically evaluate targets and the importance of the relationships between targets and mechanisms of neoplastic transformation.

PREREQUISITES

Basic knowledge on pathology and immunology. Advanced knowledge in biochemistry, molecular biology and genetics.

WEBSITE https://elearning.unimib.it/course/info.php?id=37990

M

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Biotechnology in Medicine
CONTACT: carlo.passerini@unimib.it

PROGRAM CODE: H4102D057M

MOVEMENT SYSTEM IMPAIRMENT (module of Locomotor System Diseases - H4102D018)

LECTURER: PISCITELLI DANIELE

CONTENTS

Current theories of production and organization of gross and fine movements. Implications of motor control theory in healthy and individuals with movement system disorders. Movement system impairment syndromes overview. Basic neurophysiological knowledge of neuroplasticity, recovery and compensation.

PREREQUISITES

Basic knowledge of anatomy and neurophysiology

WEBSITE https://elearning.unimib.it/course/info.php?id=35542

SCMD

YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: daniele.piscitelli@unimib.it

PROGRAM CODE: H4102D111M

NEPHROLOGY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: SINICO RENATO ALBERTO

CONTENTS

To use the knowledge of Anatomy, Physiology, Biochemistry and others basic disciplines in dealing with organ and/or apparatus pathologies.

To be able to critically evaluate the commonly used diagnostic methods in medical practice.

To recognize the signs and symptoms of major diseases, to understand the results of laboratory and instrumental tests.

To know the pathogenesis and prognosis of the handled diseases.

PREREQUISITES

Knowledge of Anatomy and Physiology of kidney and urinary tract .

WEBSITE https://elearning.unimib.it/course/info.php?id=35516

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: renato.sinico@unimib.it

PROGRAM CODE: H4102D101M

NEURANATOMY I (module of "Neuroscience 1" - H4102D028)

LECTURER: ALBERTI PAOLA

CONTENTS

The goal of the course is to provide a detailed knowledge of anatomy of the nervous system required for a correct physical examination and understanding of the diseases pathogenesis.

PREREQUISITES

Knowledge acquired during the 1st year in the "Fundamentals of Human morphology" course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35523

SCMD

YEAR: 4
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: paola.alberti@unimib.it

NEURANATOMY II (module of "Neuroscience 2" - H4102D032)

LECTURER: CAVALETTI GUIDO ANGELO

CONTENTS

The goal of the course is to provide a detailed knowledge of the anatomy of the peripheral nervous system required for a correct physical examination and understanding of the pathogenesis of the disease.

PREREQUISITES

Knowledge acquired during the 1st year in the "Fundamentals of Human morphology" course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35442

SCMD

YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: guido.cavaletti@unimib.it

PROGRAM CODE: H4102D095

NEUROENDOCRINE TUMORS

LECTURER: INVERNIZZI PIETRO

CONTENTS

Neuroendocrine tumors: epidemiology, classification and clinical features.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35642

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: pietro.invernizzi@unimib.it

PROGRAM CODE: H4102D105M

NEUROLOGY I (module of "Neuroscience 1" - H4102D028)

LECTURER: TREMOLIZZO LUCIO

CONTENTS

Semiology of motor, sensory and higher cortical dysfunctions.

PREREQUISITES

Deep knowledge of neuroanatomy; Knowledge of neurophysiology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35527

SCMD

YEAR: 4
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: lucio.tremolizzo@unimib.it

PROGRAM CODE: H4102D126M

NEUROLOGY II (module of "Neuroscience 2" - H4102D032)

LECTURER: FERRARESE CARLO

CONTENTS

Infectious and vascular disorders of Central Nervous System.

Biological mechanisms of neurodegeneration.

PREREQUISITES

Neuroscience 1

WEBSITE https://elearning.unimib.it/course/info.php?id=35445

SCMD

YEAR: 5

SEM: 1

ECTS: Only if the entire course is frequented

DEGREE in Medicine and Surgery

CONTACT: carlo.ferrarese@unimib.it

NEUROLOGY III (module of "Neuroscience 2" - H4102D032)

LECTURER: APPOLLONIO ILDEBRANDO, ISELLA VALERIA

CONTENTS

Epidemiology, pathophysiology, clinical expression, differential diagnosis, and therapeutics of the various neurological diseases dealt within this Teaching Unit.

PREREQUISITES

Neuroscience 1

WEBSITE https://elearning.unimib.it/course/info.php?id=35446

SCMD

YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: ildebrando.appollonio@unimib.it

PROGRAM CODE: H4102D128M

NEUROLOGY IV (module of "Neuroscience 2" - H4102D032)

LECTURER: TREMOLIZZO LUCIO

CONTENTS

Epidemiology, pathophysiology, clinical expression, differential diagnosis, and therapeutics of various neurological diseases.

PREREQUISITES

Neuroscience 1.

WEBSITE https://elearning.unimib.it/course/info.php?id=35447

SCMD

YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: lucio.tremolizzo@unimib.it

PROGRAM CODE: H4102D028

NEUROSCIENCE 1

MODULES:
1. Biochemistry (ref. H4102D103M)
2. Diagnostics (ref. H4102D104M)
3. Neuranatomy I (ref. H4102D101M)
4. Neurology I (ref. H4102D105M)
5. Physiology of nervous system I (ref. H4102D102M)

LECTURER: FERRARESE CARLO

CONTENTS

Please, see each module course.

PREREQUISITES

Please, see each module course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35522

SCMD
YEAR: 4
SEM: 2
ECTS: 7
DEGREE in Medicine and Surgery
CONTACT: carlo.ferrarese@unimib.it

PROGRAM CODE: H4102D032

NEUROSCIENCE 2

MODULES:

1.	Neuranatomy II	(ref. H4102D123M)
2.	Physiology of the Nervous system II	(ref. H4102D124M)
3.	Pharmacology	(ref. H4102D125M)
4.	Neurology II	(ref. H4102D126M)
5.	Neurology III	(ref. H4102D127M)
6.	Neurology IV	(ref. H4102D128M)
7.	Neurosurgery	(ref. H4102D129M)
8.	Emergency	(ref. H4102D130M)
9.	Psychiatry I	(ref. H4102D131M)
10.	Psychiatry II	(ref. H4102D132M)
11.	Clinical Psychology	(ref. H4102D133M)
12.	Pharmacology	(ref. H4102D134M)

LECTURER: FERRARESE CARLO

CONTENTS

Please, see each module course.

PREREQUISITES

Please, see each module course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35441

SCMD

YEAR: 5
SEM: 1
ECTS: 19
DEGREE in Medicine and Surgery
CONTACT: carlo.ferrarese@unimib.it

PROGRAM CODE: H4102D129M

NEUROSURGERY (module of "Neuroscience 2" - H4102D032)

LECTURER: GIUSSANI CARLO GIORGIO

CONTENTS

To understand the physiopathology of

- intracranial hypertension

- CSF dynamic

- cerebral blood flow

- spinal biomechanics

that subtend the main neurosurgical diseases.

To learn the nosology, the clinical expression and the treatment of the main neurosurgical diseases acquiring basic knowledge of pre and intraoperative technological devices.

PREREQUISITES

Neuroscience 1.

WEBSITE https://elearning.unimib.it/course/info.php?id=35448

SCMD

YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: carlo.giussani@unimib.it

PROGRAM CODE: H4102D114M

OCCUPATIONAL MEDICINE (module of "Public Health, Preventive and Occupational Medicine - H4102D030)

LECTURER: DE VITO GIOVANNI

CONTENTS

The course provides students with knowledge and skills related to prevention and health protection in workplaces, and to occupational diseases.

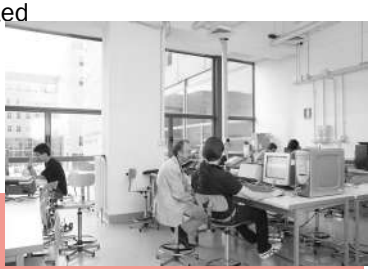
PREREQUISITES

Knowledge related to preparatory courses as specified in the regulation of the degree course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35509

SCMD

YEAR: 4
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giovanni.devito@unimib.it



PROGRAM CODE: H4102D129M

OCCUPATIONAL MEDICINE - UOC MEDICINA DEL LAVORO PGXXIII HOSPITAL BERGAMO

LECTURER: RIVA MATTEO MARCO

CONTENTS

The student will support an occupational physician (tutor) during the following activities::

Company Health Service

Medical surveillance (medical examination + diagnostic tests) for workers exposed to occupational risks

Diagnosis and management of occupational diseases

Management of infectious diseases among workers (COVID-19)

PREREQUISITES

It is recommended that the student has already passed the Occupational Medicine examination.

WEBSITE https://elearning.unimib.it/course/info.php?id=35653

SCMD

YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D153M

OCULAR DISEASES (module of "Head and Neck Diseases"- H4102D036)

LECTURER: MAESTRONI LUCA ROBERTO ERCOLE

CONTENTS

To identify the clinical features of the more frequent ocular diseases.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35459

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: luca.maestroni@unimib.it

PROGRAM CODE: H4102D020

ONCO-HEMATOLOGICAL DISEASES

MODULES:
1.Pharmacology (ref. H4102D065M)
2.Patology (ref. H4102D066M)
3.Diagnostics and Radiation Oncology (ref. H4102D067M)
4.Oncology (ref. H4102D068M)
5.Hematology (ref. H4102D069M)

LECTURER: RAMBALDI ALESSANDRO

CONTENTS

See each module.

PREREQUISITES

See each module.

WEBSITE https://elearning.unimib.it/course/info.php?id=35528

SCMD

YEAR: 3
SEM: 1
ECTS: 8
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D068M

ONCOLOGY (module of "Onco-hematological Diseases"- H4102D020)

LECTURER: CAZZANIGA MARINA ELENA

CONTENTS

The aim of the course is to provide students with basic knowledge of Oncology.

It also aims to provide students with the basics of the specific terminology, and let them know the diagnostic criteria of the main neoplastic diseases and treatment guidelines.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35531

SCMD

YEAR: 3
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marina.cazzaniga@unimib.it

PROGRAM CODE: H4102D145M

PATHOLOGY (module of "Digestive Health" - H4102D043)

LECTURER: CATTORETTI GIORGIO

CONTENTS

N/A.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35473

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giorgio.cattoretti@unimib.it

PATHOLOGY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: PAGNI FABIO

CONTENTS

NEPHROPATHOLOGY

At the end of the course the student will be able to:

1) Know histopathology, immunofluorescence and ultrastructural (Transmission Electron Mycroscopy) of the main glomerular renal diseases.

2) Interpret tests and diagnostic investigations in order to diagnose kidney diseases.

3) To use the knowledge of normal histology and others basic disciplines in dealing with organ and/or apparatus pathologies.To be able to critically evaluate the commonly used diagnostic methods in pathology To know the indications of renal biopsy.

ENDOCRINE PATHOLOGY

Endocrine pathology is the subspecialty of surgical pathology which deals with the diagnosis and characterization of neoplastic and non-neoplastic diseases of organs of the endocrine system, including

the thyroid, parathyroids, endocrine pancreas, and adrenal glands.

PREREQUISITES

None

WEBSITE https://elearning.unimib.it/course/info.php?id=35515

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: fabio.pagni@unimib.it

PROGRAM CODE: H4102D053M

PATHOLOGY (module of "Locomotor System Diseases"- H4102D018)

LECTURER: LEONE BIAGIO EUGENIO

CONTENTS

To provide the pathologic basis of locomotor system diseases. The student should be able to integrate macroscopic, histological, and cytological morphology with the clinical assay. The student must know the role and the professional tasks of the pathologist in the management of bone and soft tissue samples.

Morphology of non-neoplastic disease of bone and joints; pathogenesis, classification and morphology of soft tissue and bone tumours.

PREREQUISITES

Basic knowledge of histology and anatomy.

WEBSITE https://elearning.unimib.it/course/info.php?id=35538

SCMD

YEAR:	3
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	biagioeugenio.leone@unimib.it

PROGRAM CODE: H4102D066M

PATHOLOGY (module of "Onco-Hematological DIiseases"- H4102D020)

LECTURER: MARCHETTI MARINA

CONTENTS

* Cellular biochemical and molecular bases of the carcinogenic process
* Carcinogens, classification, action, DNA mutations, oncogenes
* Components of the tumor microenvironment : angiogenesis, stroma, matrix
* Components of the tumor infiltrate: natural and adaptive immunity cells in the cancer field
* Growth factors and receptors in major tumors and their microenvironment; molecular bases of targeted therapy and immunotherapy.

PREREQUISITES

Basic pathology course (II yrs) , preparatory courses to the Vertical Tracks according to the regulation.

WEBSITE https://elearning.unimib.it/course/info.php?id=35529

SCMD

YEAR: 3
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marina.marchetti@unimib.it

PROGRAM CODE: H4102D082M

PATHOLOGY (module of Cardiovascular Diseases and Respiratory Sciences- H4102D024)

LECTURER: CATTORETTI GIORGIO

CONTENTS

The course treats the main diseases of different organs and systems to correlate pathological findings macroscopic and microscopic with different phases of their clinical presentation. Particular emphasis is given for inflammatory and neoplastic diseases of of heart and lung (H&L) .

PREREQUISITES

General Pathology exam.

WEBSITE https://elearning.unimib.it/enrol/index.php?id=35491

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giorgio.cattoretti@unimib.it

PROGRAM CODE: H4102D035M

PATHOLOGY AND MEDICINE (module of Basic Pathology - H4102D011)

LECTURER: ALBINI ADRIANA

CONTENTS

The course aims to introduce the student to the knowledge of the causes of human diseases, the students will be able to understand the fundamental pathogenetic and pathophysiological mechanisms. During the course, topics for in-depth knowledge on the molecular mechanisms underlying the disease pathogenesis to identify potential therapeutic targets will be developed.

PREREQUISITES

Knowledge of the introductory courses indicated in the regulation of the degree course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35552

SCMD

YEAR: 2
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: adriana.albini@unimib.it

PROGRAM CODE: H4102D151M

PERIODONTOLOGY (module of "Head and Neck Diseases"- H4102D036)

LECTURER: CACCIANIGA GIANLUIGI

CONTENTS

The course aims to lead the student to the knowledge of the anatomical aspects of the periodontium, of the correlated pathophysiology, of the diagnostic and therapeutic aspects able to adequately diagnose and treat all the pathologies of the periodontium, in its purely medical and surgical aspects.
Particular importance is given to the correlation of periodontal disease with the main systemic diseases related to it. Remarkable emphasis is given to the most modern therapeutic procedures that use advanced technologies, in order to reduce the invalidity of therapeutic protocols.
The student will understand the importance of laser-assisted techniques in the treatment of periodontal disease.

PREREQUISITES

Completion of the examination in General Dentistry Disciplines

WEBSITE https://elearning.unimib.it/course/info.php?id=35457

SCMD

YEAR:	5
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	gianluigi.caccianiga@unimib.it

PHARMACOLOGY (module of "Neuroscience 2" - H4102D032)

LECTURER: PARENTI MARCO DOMENICO

CONTENTS

Drugs acting on the peripheral somatic and autonomic nervous systems.

Drugs for the treatment of the main neurological diseases:

(1) Drugs for the treatment of neurodegenerative diseases

(2) Anti-seizure drugs

(3) Drugs for headache and migraine

Drugs for the treatment of the main psychiatric diseases:

(1) Anxiolytics and hypnotics

(2) Antidepressants and mood stabilizers

(3) Antipsychotics

PREREQUISITES

Previous knowledge of the basic principles of chemistry, biochemistry, and of anatomy, physiology and pathology of peripheral and central nervous systems is required

WEBSITE https://elearning.unimib.it/course/info.php?id=35444

SCMD

YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: marco.parenti@unimib.it

PROGRAM CODE: F0901D045

PHARMACOLOGY

LECTURER: PARENTI MARCO DOMENICO

CONTENTS

The students will learn: (1) the biological mechanisms underlying the effects induced by drugs acting on CNS, their abuse and dependence, the genetic determinants that influence their responses; (2) the differences between conventional and biological drugs and what are the biosimilars; (3) the principles that regulate drug patenting and their accessibility. In addition, through the discussion of scientific articles, the students will learn the main experimental methods to study drugs.

PREREQUISITES

Knowledge of chemistry, biochemistry, molecular and cell biology, genetics, anatomy, physiology, pathology.

WEBSITE https://elearning.unimib.it/course/info.php?id=38008

M

YEAR: 1
SEM: 2
ECTS: 6
DEGREE in Biotechnology in Medicine
CONTACT: marco.parenti@unimib.it

PROGRAM CODE: H4102D065M

PHARMACOLOGY (module of "Onco-Hematological Diseases" H4102D020)

LECTURER: TORSELLO ANTONIO BIAGIO, COCO SILVIA

CONTENTS

* classification of the most used hematological drugs: anti-anemic drugs and hematopoietic growth factors; anticoagulants and antiplatelet agents; anti-hemorrhagic drugs; lipid-lowering drugs.
* ADME and mechanisms of actions
* cellular, biochemical and molecular bases of the action of hematological drugs and their interactions within the human body
* therapeutic uses
* advantages and disadvantages of their therapeutic use
* analysis of some clinical cases.

PREREQUISITES

Basic Pharmacology course.

WEBSITE https://elearning.unimib.it/course/info.php?id=35533

SCMD
YEAR: 3
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: antonio.torsello@unimib.it

PROGRAM CODE: H4102D081M

PHARMACOLOGY (module of "Cardiovascular Diseases and Respiratory Sciences" - H4102D024)

LECTURER: TORSELLO ANTONIO BIAGIO, MUSAZZI LAURA

CONTENTS

This course will provide basic knowledge about the effects of different drugs on heart and circulation and will explain the mechanisms of action of the main classes of cardiovascular drugs. The course will allow students understand how to tailor drug prescription according to patient disease and characteristics. After completion of this course, the students will learn basic knowledge about the treatment of major cardiovascular and respiratory conditions (hypertension, ischemic heart disease, heart failure, asthma etc).

-Main classes of cardiovascular and respiratory drugs with their mechanisms of action, drug interactions and precautions

PREREQUISITES

Fundamental knowledge on cell biology

WEBSITE https://elearning.unimib.it/course/info.php?id=35490

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: antonio.torsello@unimib.it
laura.musazzi@unimib.it

PROGRAM CODE: H4102D144M

PHARMACOLOGY (module of "Digestive Health" -H4102D043)

LECTURER: MUSAZZI LAURA

CONTENTS

N/A

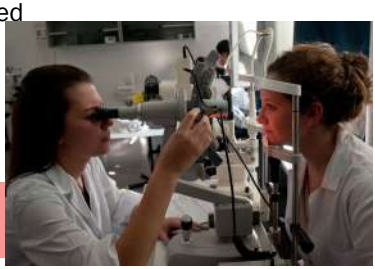
PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35477

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: laura.musazzi@unimib.it



PROGRAM CODE: H4102D108M

PHARMACOLOGY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: MUSAZZI LAURA

CONTENTS

Main aim of the course is to provide students with the pharmacology of major endocrine- and nephro-pathologies. A general description of main hormones and drugs modulating hypothalamic and pituitary activity, thyroid, adrenal glands and gonadal function, affecting bone mineral homeostasis, together with information on drugs acting at the lower urinary tract will be given. Mechanism of action, therapeutic properties, drug interactions, and side effects will also be presented.

PREREQUISITES

Propaedeutic skills .

WEBSITE https://elearning.unimib.it/course/info.php?id=35514

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: laura.musazzi@unimib.it

PHYCHIATRY I (module of "Neuroscience 2" - H4102D032)

LECTURER: CARRA' GIUSEPPE

CONTENTS

A comprehensive overview on epidemiology, classification, psychopathology, diagnosis, treatment of main mental disorders.

- Signs, symptoms, aetiology, and classification of mental disorders
- Schizophrenia spectrum-disorders and paranoid syndromes
- Depression
- Bipolar Disorders
- Anxiety disorders
- Obsessive compulsive disorders
- Personality and personality disorders
- Alcohol and substance use disorders
- Stress and stress-related disorders
- Psychological and psychosocial interventions
- Eating disorders
- Mental Health care delivery systems
- Emergencies in psychiatry

PREREQUISITES

Neuroscience 1

WEBSITE https://elearning.unimib.it/course/info.php?id=35450

SCMD
YEAR: 5
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giuseppe.carra@unimib.it

PHYCHIATRY II (module of "Neuroscience 2" - H4102D032)

LECTURER: BARTOLI FRANCESCO

CONTENTS

A comprehensive overview on epidemiology, classification, psychopathology, diagnosis, treatment of main mental disorders.

Signs, symptoms, aetiology, and classification of mental disorders

Schizophrenia spectrum-disorders and paranoid syndromes
Depression
Bipolar Disorders
Anxiety disorders
Obsessive compulsive disorders
Personality and personality disorders
Alcohol and substance use disorders
Stress and stress-related disorders
Psychological and psychosocial interventions
Eating disorders
Mental Health care delivery systems
Emergencies in psychiatry

PREREQUISITES

Neuroscience 1

WEBSITE https://elearning.unimib.it/course/info.php?id=35451

SCMD	
YEAR:	5
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	francesco.bartoli@unimib.it

PROGRAM CODE: H4102D080M

PHYSIOLOGY (module of Cardiovascular Diseases and Respiratory Sciences - H4102D024)

LECTURER: ZAZA ANTONIO

CONTENTS

The course aims to provide a basic understanding of cardiovascular function and its homeostatic regulation; heart-lung interaction and the main consequences of cardiac and vascular dysfunction will also be addressed. The course should provide a background for the pathophysiological interpretation of cardiovascular disease.

Cardiac physiology and adaptations (in health and disease); physiology of the systemic and pulmonary circulations; regulation of cardiovascular function; methods of measurement of cardiovascular function.

PREREQUISITES

Fundamentals of human physiology module (by Profs. Sancini and Rivolta)

WEBSITE https://elearning.unimib.it/course/info.php?id=35500

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: antonio.zaza@unimib.it

PROGRAM CODE: H4102D143M

PHYSIOLOGY (module of Digestive Health - H4102D024)

LECTURER: RIVOLTA ILARIA

CONTENTS

The course is based on the systematic presentation of physiological concepts underlying the functioning of the digestive tract. The mechanism leading to function imbalance cannot be appreciated without a deep understanding of the underlying biophysical and physiological mechanisms. Therefore, we will present such mechanisms that guarantee functions at the cellular, tissue, organ and apparatus level and at the integrated level.

PREREQUISITES

Fundamentals of Human Physiology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35472

SCMD
YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: ilaria.rivolta@unimib.it

PROGRAM CODE: H4102D1087M

PHYSIOLOGY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: RIVOLTA ILARIA

CONTENTS

Main aim of the course is to provide students with the pharmacology of major enThe course will examine aspects of the renal physiology as they serve to introduce the students to the relevance and the importance of the kidney system. The module will address important homeostatic kidney functions such as the capacity to regulate the concentration of solutes and electrolytes within the blood and matching their excretion in the urine, to regulate the blood pressure and the maintenance of the pH of the extracellular fluid throught the excretion and synthesis of acidic and basic molecules. Moreover, a number of important endocrine functions carried out by the kidney will be presented.

PREREQUISITES

Fundamentals of Human Physiology, in particular the revision the balance in body fluid volume and composition addressed in the second year.

WEBSITE https://elearning.unimib.it/course/info.php?id=35513

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: Ilaria.rivolta@unimib.it

PROGRAM CODE: H4102D052M

PHYSIOLOGY (module of "Locomotor System Diseases"- H4102D018)

LECTURER: SANCINI GIULIO ALFREDO

CONTENTS

The course will provide the knowledge to understand the physiological concepts underlying locomotor system functions in order to provide bases for pharmacology, pathology, pathophysiology and clinics of the locomotor system. Describe the mechanisms and regulation of muscle function, the neurophysiology of motor function, from spinal reflexes to cerebral cortical control.
The structure of skeletal muscle. Molecular mechanism of contraction. Excitation-contraction coupling. Cross-bridge cycle. Force output and motor unit. The control of skeletal muscle contraction. Neuro-muscolar synaptic transmission Muscle fiber types and properties. Electromyography. Spinal reflexes. The Cerebellum and Basal Ganglia: the functional organization of movements. The cortical control of movements. The postural control. Physiology of exercise training.

PREREQUISITES

Basic knowledge of anatomy and biochemistry.

WEBSITE https://elearning.unimib.it/course/info.php?id=35537

SCMD

YEAR:	3
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	giulio.sancini@unimib.it

PROGRAM CODE: H4102D102M

PHYSIOLOGY OF THE NERVOUS SYSTEM I (module of "Neuroscience 1" - H4102D028)

LECTURER: SANCINI GIULIO ALFREDO

CONTENTS

The course will explore the neuroanatomical and neurophysiological basis of the spinal cord, the brainstem, the visual perception, the auditory perception, the vestibular functions.

PREREQUISITES

Sound knowledge of anatomy and biochemistry

WEBSITE https://elearning.unimib.it/course/info.php?id=35524

SCMD

YEAR: 4
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giulio.sancini@unimib.it

PHYSIOLOGY OF THE NERVOUS SYSTEM II (module of "Neuroscience 2" - H4102D032)

LECTURER: SANCINI GIULIO ALFREDO

CONTENTS

The course will explore the neuroanatomical and neurophysiological basis of the autonomic nervous system, the cerebral cortex, the cognitive functions, memory and consciousness. It will also examine issues related to neurocognitive development. Specific topics covered include basic principles of clinical neurophysiology. The course will explore the behavioral, neuroanatomical, and neurophysiological basis of aforementioned cognitive functions.

PREREQUISITES

Sound knowledge of anatomy and biochemistry

WEBSITE https://elearning.unimib.it/course/info.php?id=35443

SCMD	
YEAR:	5
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	giulio.sancini@unimib.it

PROGRAM CODE: H4102D116M

PREVENTIVE MEDICINE (module of "Public Health, Preventive and Occupational Medicine - H4102D030)

LECTURER: MAZZAGLIA GIAMPIERO

CONTENTS

The aim of the course is to provide students with the following topics: introduction to preventive medicine and overview on epidemiological methods; epidemiology & prevention of communicable diseases, vaccines; epidemiology & prevention of non-communicable diseases; screening.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35511

SCMD

YEAR: 4
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: giampiero.mazzaglia@unimib.it

PROGRAM CODE: H4102D056M

PROSTHESIS AND REHABILITATION (module of "Locomotor System Diseases" - H4102D018)

LECTURER: REGAZZONI DANIELE

CONTENTS

The course aims at providing the students with the basic knowledge about major prostheses relevance, functioning, and customization opportunities (e.g. by means of Additive Manufacturing). Recent digital techniques to assess rehabilitation will be explained and real cases will be shown and discussed.

PREREQUISITES

Basic knowledge of anatomy.

WEBSITE https://elearning.unimib.it/course/info.php?id=35541

SCMD

YEAR:	3
SEM:	1
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	daniele.regazzoni@unimib.it

PROGRAM CODE: H4102D058M

PROSTHESIS AND REHABILITATION IN PRACTICE (module of "Locomotor System Diseases"- H4102D018)

LECTURER: LAZZARONI PAOLO

CONTENTS

The course aims at providing the students with the basic knowledge about standard sensors used to measure motor parameters. The program explores a typical data acquisition and processing system, focusing on wearables-based systems for rehabilitation purposes. By describing and discussing some use cases, the course offers some basic tools to extract relevant information about patient's motor skills.

PREREQUISITES

Basic knowledge of physics and mathematics.

WEBSITE https://elearning.unimib.it/course/info.php?id=35543

SCMD

YEAR: 3
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: tbd

PROGRAM CODE: H4102D115M

PUBLIC HEALTH (module of "Public Health, Preventive and Occupational Medicine - H4102D030)

LECTURER: CONTI SARA

CONTENTS

After an introduction to fundamental concepts of public health, the course will focus on the use of epidemiology as an analytical method to describe the health of a population and its drivers.

Both descriptive and analytical epidemiology will be reviewed, describing the main measures of frequency and association, and their application in real life.

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35510

SCMD

YEAR:	4
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	sara.conti@unimib.it

PROGRAM CODE: H4102D030

PUBLIC HEALTH, PREVENTIVE AND OCCUPATIONAL MEDICINE

MODULES: 1.Occupational Medicine (ref. H4102D114M)
2.Preventive Medicine (ref. H4102D116M)
3. Publich Health (ref. H4102D115M)

LECTURER: MANTOVANI LORENZO GIOVANNI

CONTENTS

Please see each module.

PREREQUISITES

None

WEBSITE https://elearning.unimib.it/course/info.php?id=35508

SCMD
YEAR: 4
SEM: 2
ECTS: 3
DEGREE in Medicine and Surgery
CONTACT: lorenzo.mantovani@unimib.it

PROGRAM CODE: H4102D044M

RADIOLOGICAL ANATOMY (module of "Image Diagnostics" - H4102D014)

LECTURER: SIRONI SANDRO

CONTENTS

Basic comprehension of the key anatomic reference structures, as an introduction to clinical interpretation of radiological images.

Normal anatomy as documented by means of conventional radiology, CT, ultrasound, and Magnetic Resonance Imaging.

PREREQUISITES

Basic knowledge on chemistry, physics, human anatomy, physiology and pharmacology.

WEBSITE https://elearning.unimib.it/course/info.php?id=35560

SCMD

YEAR: 2
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: sandro.sironi@unimib.it

REGIONAL ANATOMY (module of "Fundamentals of Human Morphology" - H4102D087)

LECTURER: ALBERTI PAOLA

CONTENTS

Students will be introduced to the principles of regional anatomy and general principles of systematic anatomy, with specific reference to clinical anatomy.

Students will be able to demonstrate the position of palpable landmarks of the different regions and will acquire knowledge of the characteristic features, organ content and 3-D arrangement of the head, neck, thorax, abdomen, pelvis and limbs.

The general features of the systems further described in detail in "Locomotor system diseases", "Cardiovascular and Respiratory diseases", Digestive health", "Endocrine, Kidney and Urinary tract diseases" and "Mother and Child" will be addressed.

PREREQUISITES

College-level scientific knowledge.

WEBSITE https://elearning.unimib.it/course/info.php?id=35618

SCMD

YEAR: 1
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: paola.alberti@unimib.it

PROGRAM CODE: H4102D089M

RESPIRATORY SCIENCES I (module of Cardiovascular Diseases and Respiratory Sciences- H4102D024)

LECTURER: FAVERIO PAOLA

CONTENTS

The course will provide the essential knowledge on the diagnosis and clinical management of the most important respiratory diseases. After completion of this course, the student will learn the basics of history taking and physical examination (with focus on respiratory problems), the main clinical signs and symptoms, diagnostic assessment with critical data interpretation, and normal ranges of the main diagnostic tests for the respiratory system.

- Specific diagnostic tests for respiratory disorders; lung infections; chronic pulmonary diseases

PREREQUISITES

- Basic anatomy, physiology, pathology and pharmacology of respiratory system
- Basic clinical skills

WEBSITE https://elearning.unimib.it/course/info.php?id=35498

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: paola.faverio@unimib.it

PROGRAM CODE: H4102D090M

RESPIRATORY SCIENCES II (module of Cardiovascular Diseases and Respiratory Sciences- H4102D024)

LECTURER: LUPPI FABRIZIO

CONTENTS

The course aims to provide the essential knowledge on the clinical diagnosis and management of various pleural and pulmonary diseases, including interstitial lung diseases and tumors. After the completion of this course, the student will understand the main principles of primary prevention and palliation of chronic respiratory diseases, according to current practice guidelines.

- Pleural diseases, imaging and procedures; interstitial lung disorders; pleural and lung tumors; smoking-related pulmonary disease; palliation in chronic pulmonary diseases; guidelines of the main pulmonary pathologies

PREREQUISITES

- Basic pathology and pathophysiology of respiratory system
- Basic image diagnostics

WEBSITE https://elearning.unimib.it/course/info.php?id=35499

SCMD

YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: fabrizio.luppi@unimib.it

PROGRAM CODE: H4102D072M

RHEUMATOLOGY (module of Skin and Connective Tissue Diseases - H4102D022)

LECTURER: SCIRE' CARLO ALBERTO

CONTENTS

Elements of Semeiotics (joint physical examination, laboratory tests, imaging). Epidemiology of rheumatic diseases, connective tissue diseases - arthritis - vasculitis: etiology/pathogenesis, diagnostic/classification criteria, laboratory and instrumental investigations, clinical picture, elements of therapy.

PREREQUISITES

Have passed the exams indicated in the regulation with regard to the preparatory procedures.

WEBSITE https://elearning.unimib.it/course/info.php?id=35572

SCMD

YEAR:	3
SEM:	2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	carlo.scire@unimib.it

PROGRAM CODE: H4102D052

SCIENTIFIC AND MEDICAL LANGUAGE

LECTURER: D'ANGELO LARISSA

CONTENTS

The course offers an introduction to English for Academic Purposes with particular attention devoted to the medical field.

PREREQUISITES

Non-native English students are required to possess an English language certification issued by an institution accredited by the University and corresponding to level B2 of the Common European Framework of Languages.

WEBSITE https://elearning.unimib.it/course/info.php?id=35614

SCMD

YEAR: 1
SEM: 1
ECTS: 3
DEGREE in Medicine and Surgery
CONTACT: larissa.dangelo@unimib.it

PROGRAM CODE: H4102D022

SKIN AND CONNECTIVE TISSUE DISEASES

MODULES: 1.Dermatology (ref. H4102D195M)
2.Rheumatology (ref. H4102D072M)

LECTURER: SINICO RENATO

CONTENTS

See each module.

PREREQUISITES

See each module.

WEBSITE https://elearning.unimib.it/course/info.php?id=35570

SCMD

YEAR: 3
SEM: 2
ECTS: 6
DEGREE in Medicine and Surgery
CONTACT: renato.sinico@unimib.it

PROGRAM CODE: H4102D037M

SOCIETY AND HEALTH I (module of "Medicine and Society"- H4102D013)

LECTURER: CORTESI PAOLO ANGELO

CONTENTS

The key aim of this course is to learn about the principal issues surrounding health and society. The course focus on the main determinants of population health and risk factors of disease, and explore how epidemiology and public health can more effectively assess, protect and promote the health of populations.

The course starts with concepts about disease, health and health promotion/ protection/ prevention. Next, we focus on behavioral, biological, socio-economic, environmental and access to care factors that influence the health status of individuals or populations. Specific attention is paid to the role of Public health in promote and protect health and addressing factors which influence the health status of populations. The course also discuss global health, the international organizations and agencies created to protect and promote global health and the tolls developed to assess global health. Furthermore, we address health systems developed in Italy and other countries to provide care to the populations.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35545

SCMD

YEAR: 2
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: paolo.cortesi@unimib.it

PROGRAM CODE: H4102D038M

SOCIETY AND HEALTH II (module of “Medicine and Society”- H4102D013)

LECTURER: RIVA AUGUSTO MICHELE, CAMBIOLI LUCA

CONTENTS

Introduction to the History of Medicine. Medicine in the ancient world (Pre-Hippocratic Medicine and Greek-Roman Medicine), Medieval Medicine, the Medical Renaissance, Baroque Medicine, Medicine in the Enlightenment, Medicine in the 19th century and Medicine in the 20th century.

PREREQUISITES

Prerequisites requested by the course "Medicine and Society".

WEBSITE https://elearning.unimib.it/course/info.php?id=35546

SCMD

YEAR:	2
SEM:	1+2
ECTS:	Only if the entire course is frequented
DEGREE in	Medicine and Surgery
CONTACT:	michele.riva@unimib.it

PROGRAM CODE: H4102D98

STATISTICAL PRINCIPLES IN BIOMEDICAL RESEARCH

LECTURER: REBORA PAOLA

CONTENTS

Study design and study protocol (2 hours)

* Study evaluation and reporting of results (2 hours)
* Systematics reviews and meta-analysis (3 hours)
* Big data in omics (3 hours)

PREREQUISITES

Biostatistics course

WEBSITE https://elearning.unimib.it/course/info.php?id=35645

SCMD
YEAR: 3
SEM: 1+2
ECTS: 1
DEGREE in Medicine and Surgery
CONTACT: paola.rebora@unimib.it

PROGRAM CODE: H4102D148M

SURGERY (module of "Digestive Health" - H4102D024)

LECTURER: DE CARLIS LUCIANO GREGORIO

CONTENTS

N/A

PREREQUISITES

N/A

WEBSITE https://elearning.unimib.it/course/info.php?id=35476

SCMD

YEAR: 5
SEM: 2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: luciano.decarlis@unimib.it

PROGRAM CODE: F0901D047

TRANSLATIONAL APPROACH TO NEUROLOGICAL DISORSERS

MODULES: 1.Mechanisms and Biomarkers of Neuronal Damage (ref. F0901D092M)

2.Mechanisms and Models of Vascular Diseases (ref. F0901D093M)

LECTURER: FERRARESE CARLO

CONTENTS

This course aims at contributing to the training of a medical biotechnologist able to integrate basic principles of neuroscience in order to understand the biological basis, main pathogenic mechanisms and experimental models regarding nervous system and cardiovascular diseases. Models will be analyzed stressing critical aspects and role in the development of novel therapeutic strategies.

PREREQUISITES

Basic knowledge of anatomy and histology, physiology and general pathology and neuropharmacology.

Advanced knowledge of biochemistry, molecular biology and genetics.

WEBSITE https://elearning.unimib.it/course/info.php?id=37985

M

YEAR: 2
SEM: 1
ECTS: 6
DEGREE in Biotechnology in Medicine
CONTACT: carlo.ferrarese@unimib.it

PROGRAM CODE: F0901D048

TRANSLATIONAL APPROACH TO ONCO-HEMATOLOGICAL DISEASES

MODULES: 1.Cellular and Gene Therapy (ref. F0901D081M)
2.Molecular and Oncological Therapy (ref. F0901D082M)

LECTURER: BIONDI ANDREA

CONTENTS

See each module.

PREREQUISITES

See each module.

WEBSITE https://elearning.unimib.it/course/info.php?id=37988

M

YEAR: 2
SEM: 1
ECTS: 6
DEGREE in Biotechnology in Medicine
CONTACT: andrea.biondi@unimib.it

PROGRAM CODE: H4102D048

TURNING CLINICAL EXPERIENCE INTO RESEARCH PROJECTS

LECTURER: BIONDI ANDREA

CONTENTS

The program of this course intends to introduce the student to the practice of clinical research by following two paths. The first will indicate the basis that led to the generation of scientific evidence on which diagnostic and therapeutic decisions are based in the individual patient; the second will cover the reverse path and will develop the notions that the student must know in order to collect and examine the results of his activity in the real life that could be used to generate hypotheses of new controlled studies.

PREREQUISITES

None.

WEBSITE https://elearning.unimib.it/course/info.php?id=35627

SCMD	3
YEAR:	1+2
SEM:	1
ECTS:	Medicine and Surgery
DEGREE in	andrea.biondi@unimib.it
CONTACT:	

PROGRAM CODE: H4102D112M

UROLOGY (module of "Endocrine Kidney and Urinary Tract Diseases" - H4102D029)

LECTURER: DA POZZO LUIGI FILIPPO

CONTENTS

The lessons will cover the most important urological syndromes: bladder outlet obstruction, benign prostatic hyperplasia, urinary tract infections, urinary stones, erectile disfunction. Students will acquire the basic knowledge required to diagnose and manage the main uro-oncological pathologies: prostate, kidney, bladder and testicular cancers

PREREQUISITES

Basic knowledge of fundamentals of biology, genetics, morphology, histology, physiology of the uro-genital system.

WEBSITE https://elearning.unimib.it/course/info.php?id=35517

SCMD

YEAR: 4
SEM: 1+2
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: luigi.dapozzo@unimib.it

PROGRAM CODE: H4102D086M

VASCULAR SURGERY (module of "Cardiovascular Diseases and Respiratory Sciences"—H4102D024)

LECTURER: FROIO ALBERTO

CONTENTS

This course focuses on pathophysiology, clinical evaluation, diagnosis and treatment of vascular diseases.

The lectures will cover the most important aspects related to surgical treatment of vascular pathologies as aneurysms, carotid disease, peripheral artery disease and venous disease. Students will acquire the basic knowledge required to diagnose the most important vascular disease and will learn about treatment indications and main surgical procedures.

PREREQUISITES

Basic anatomy, physiology, pathology and diagnostics of vascular diseases

WEBSITE https://elearning.unimib.it/course/info.php?id=35495

SCMD
YEAR: 4
SEM: 1
ECTS: Only if the entire course is frequented
DEGREE in Medicine and Surgery
CONTACT: alberto.froio@unimib.it

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