

Faculty of Exact and Natural Sciences

Specialization courses

Specialization in Bromatology and Food Technology
Specialization in Chemical Sciences and the Environment.
Specialization in Data Mining and Knowledge Discovery
Specialization in Mining Geology
Specialization in Industrial Hygiene and Safety
Specialization in Policies and Management of Science and Technology
Specialization in Statistics

Master degrees

MA in Molecular Biology
MA in Biotechnology
MA in Bromatology and Food Technology
MA in Environmental Sciences
MA in Mathematical Statistics
MA in Data Mining and Knowledge Discovery
MA in Medical Physics
MA in Agrarian Meteorology
MA in Policies and Management of Science and Technology
MA in Public Health

Specialization in Chemical Sciences and the Environment

General Information

Director: Norma Sbarbati Nudelman
Degree: Specialist in Chemical Sciences and Environment
Approximate duration: 1 year
Enrolment periods: February
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone : (5411) 4576-3333/32 Fax: (5411) 4576-3351
e-mail: postgrado@de.fcen.uba.ar

Course description

Objectives:

To introduce undergraduates to the terminology and definitions of the environmental topics in order to allow them to interact efficiently in multidisciplinary areas.
To raise awareness of the existence of environmental disturbances stemming from human activity; of the consequences and scope of chemical measurements in the evaluation of the impact and modeling of the phenomena.
To transmit the importance of scientific training in the achievement of data quality in environmental measurements and in the interpretation of importance of general bases such as: standardization, sampling, data processing, etc.
To instruct professionals in new "clean" or low-residue technologies and train them in the evaluation of diverse alternatives so as to make an appropriate selection and decide which best fits their specific area.

Syllabus

1) Module "Chemistry in the natural environment"

- a. Air chemistry and atmospheric pollution; b. Water chemistry and water pollution; c. Soil chemistry.
- 2) Module "Interaction among polluters. Men and nature"
- a. Degradation and de-pollution mechanisms; b. Environmental analytic chemistry; c. Environmental toxicology and eco-toxicology.
- 3) Module "Technology applied to environment preservation"
- a. Evaluation and treatment criteria; b. Technology and sustainable development.
- 4) Inter modular seminar.

Specialization in Mining Geology

General Information

Director: Vicente Mendez
Degree: Specialist in Mining Geology
Approximate duration: 1 ½ years
Enrolment periods: consult
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone : (5411) 4576-3333/32 Fax: (5411) 4576-3351
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Course description

Objectives:

To train mining geologists qualified to carry out tasks of mineral resource prospecting, exploration and evaluation required by the stage of mining expansion the country is experiencing.

To incorporate to this course of action Economic Geologic disciplines and their terminological scope; metallogenetic, legal, and mineralogical definitions; the scope of geologic, geochemical and geophysical prospecting; the evaluation of projects on metal and non-metal mining, rock application, and use of industrial minerals; exploitation of fields and geotechnical aspects concerned.

To promote the interaction within the scientific and technical filed for the national development. In connection to this aim, students will analyze concepts concerning geologic mining science, applied science and technology and scientific and technical advances.

To define the systematic condition of the geological mining science and its projection in the area of prospecting and exploration, including the general and systematic aspects of tactical and strategic operations and the modules corresponding to localized operations, taking into consideration the broad and complex range of usual techniques; and the analysis of research stages - its objectives, the missions and functions displayed by professionals, execution timing and cost.

Syllabus

Module on Field studies: Metallogeny. Industrial minerals. Field application methods. Argentine fields. Advanced mineralogy.

Module on prospecting – exploration: Field prospecting and exploration. Geophysical prospecting. Geochemical prospecting. Structural controls. Tectonic and metallogenesis for prospecting.

Module on evaluation of mining processes: Legal aspects. Mining and environment. Evaluation and management of mining projects. Field exploitation and minerallurgic treatments.

Specialization in Industrial Hygiene and Safety

Director: Josefina Maria Tomio

Degree: Specialist in Industrial Hygiene and Safety
Approximate duration: 1 year
Enrolment period: consult
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone: (5411) 4576-3333/32 Fax: (5411) 4576-3351
e-mail: postgrado@de.fcen.uba.ar

Course information

Objectives

To train professionals so that they will be able to run the hygiene and safety services which official and private entities have to comply with according to law 19587. The multidisciplinary nature of the plan induces graduates to: a) diagnose with precision problems concerning different issues connected to hygiene and safety; b) choose specialists that can deal with specific problems; c) be valid interlocutors of those specialists; d) be specialized in topics concerning issues connected to their undergraduate courses.

Syllabus

Job physiology. Toxicology. Organization and legislation. Sanitary radiophysics. Pollution of the working environment. Accident Theories. Safety education. Ventilation. Lighting. Fire and explosion prevention. Waste, affluent and effluent treatment. Electrical and mechanical risks. Noise and vibrations. Safety in building areas.

Specialization in Statistics

General Information

Director: Victor Jaime Yohai
Degree: Specialist in Statistics
Approximate duration: 2 years
Enrolment periods: April (uneven years)
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone: (5411) 4576-3333/32 Fax: (5411) 4576-3351
e-mail: postgrado@de.fcen.uba.ar

Course information

Objectives

To form professionals in the area of statistics with a sound theoretical training and prepare them to solve statistical problems stemming from different areas. The training will allow graduates not only to apply existent techniques, but also to modify such methods or create new ones if necessary.

Syllabus

Compulsory subjects: Probabilities. Data analysis. Theoretical statistics. Linear model. Multivariate analysis I. Non-parametric methods I. Workshops and seminars.

MA in Environmental Sciences

General Information

Director: Vicente Barros
Degree: MA of UBA in Environmental Sciences
Approximate duration: 2 years
Enrolment period: February
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone: (5411) 4576-3333/32 Fax: (5411) 4576-3351
e-mail: postgrado@de.fcen.uba.ar

Course information

Objectives

To provide a proficient training in the scientific knowledge of factors and processes that intervene in the environmental problematic, specially of those which are concerned with exact and natural sciences and whose study makes up a base for the development and/ or the application of specific technologies.

Syllabus

Requirements: Meteorology and climatology. Physic geology. Biologic groundings of ecology. Chemistry.

General training cycle (common to both orientations)

The great Argentine natural systems. Process of intervention in natural systems. Atmosphere. Soils. Continental waters. Environmental aspects of health. Introduction to environmental law and legislation. Administration and environmental planning.

Cycle of Orientation I: Biodiversity: problems and handling. Climatic changes and anthropogenic effects. Sea and coastal areas. Pollution. Evaluation of environmental impact. Environmental Chemistry. Technology and sustainable development.

Cycle of Orientation II: Air Chemistry and atmospheric pollution. Water chemistry and water pollution. Soil chemistry. Mechanisms for the transformation of pollutants. Analytical environmental chemistry. Environmental toxicology and eco toxicology. Evaluation and treatment criteria. Technology and sustainable development. Evaluation of environmental impact. Seminars and Workshops. MA Thesis.

MA in Mathematical Statistics

General information

Director: Victor Jaime Yohai
Degree: MA of UBA in Mathematical Statistics
Approximate duration: 2 years
Enrolment periods: April (uneven years)
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone: (5411) 4576-3333/32 Fax: (5411) 4576-3351
e-mail: postgrado@de.fcen.uba.ar

Course information

Objectives

To prepare professionals in the area of Statistics and provide a sound theoretical training for the solution of statistical problems stemming from different areas of knowledge.
The training will allow graduates not only to apply existent techniques, but also to modify such methods and develop new ones if necessary.

Syllabus

Compulsory subjects: Compulsory subjects: Probabilities. Data analysis. Theoretical statistics. Linear model. Multivariate analysis I. Non-parametric methods I. Workshops and seminars.

Optional subjects: some of the subjects are: Sampling. Multivariate analysis II. Time series I. Time series II. Non-parametric methods II. Computer science elements. Experiment design. Bootstrap method. Applied statistics. Generalized linear model. Non-parametric estimation. Workshops and seminars.

MA in Medical Physics

General information

Director: Susana A. Blanco
Degree: MA of UBA in Medical Physics
Approximate duration: 2 years
Enrolment periods: February – March
Department: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone: (5411) 4576-3333/32 Fax: (5411) 4576-3351
e-mail: postgrado@de.fcen.uba.ar

Course information

Objectives

To make Medical Physics achieve an accurate academic level that will fit the current technological development and to allow the training of professionals in a discipline with a broad social projection.

The course is supported by the Pan-American Health Organization and the International Organization of Atomic Energy.

Syllabus

General training cycle: Compulsory theoretical subjects: Special anatomy. Special physiology. Computer sciences elements. Bio statistics. Physics in medicine and biology.
Specialization cycle: Optional subjects among which students can choose:
Electronics 1: applied. Electronics II: instrumentation. Radiation physics. Radio-protection. Sign analysis. Physics in radiotherapy. Physics in nuclear medicine. Physics in radio diagnosis. Advanced topics in non-ionizing radiation. Radio-biology and dissymmetry. Radio –chemistry and radio-pharmacy techniques. Tomography images in medicine. Specialized laboratory. Seminars and workshops for the elaboration of the Thesis.

Doctorate

Areas:
Biologic Sciences
Atmospheric Sciences
Computer Sciences

Physic Sciences
Geological Sciences
Mathematical Sciences
Chemical Sciences, Organic Chemistry
Chemical Sciences, Biochemistry and Molecular Biology
Chemical Sciences, Industrial
Chemistry, sub-area: Inorganic, Analytic and Physic Chemistry.
Biologic chemistry

Course information

Degree: Doctorate of University of Buenos Aires.

Objectives:

To foster the training of scientists and professionals through upgrading and specialization that will lead to academic excellence suitable to the scientific and technological potential.

Doctorate Committee:

Dr. Alicia GODEAS; Dr. Mario Núñez; Dr. Magdalena KOUKHARSKY; Dr. Ricardo DEPINE; Dr. Carlos SEGOVIA FERNÁNDEZ; Dr. Alejandro RIOS; Dr. Pascual VIOLLAZ; Dr. Elsa DAMONTE; Dr. Gerardo BURTON, Dr. Pedro ARAMENDÍA, Dr., Ricardo WOLOSUIK.

Substitutes: Dr. Mario LEVIN; Dr. Susana A. BISCHOFF; Dr., Ricardo Manuel PALMA; Dr. Rubén

Applicants Admittance

Applicants must sit Admittance and a Language examination. Undergraduates with an average over seven area exempted from the exam, those with an average between five and seven must sit the exam and, applicants with an average below five must request authorization to take the exam. The latter also applies for those who request a change of orientation, those who have obtained their undergraduate degree 5 or more years before starting the Doctorate course, and to applicants who have graduated from other Universities or Faculties.

Possible areas of research for the Thesis elaboration

Biological sciences, computer sciences; Physics; geologic Sciences; Mathematics; Atmospheric and Oceanic Sciences, Organic chemistry, Biologic chemistry; Inorganic and analytic chemistry; Physical chemistry; Industries and the Institute of Biochemical research.

Counselors and special plans

Counselors will advice and provide orientation to students and elaborate the Syllabus (courses or seminars) for the students' training and will support their presentations.

Thesis director and Plan

The thesis director, the research Topic and the plan must be presented within two years. The thesis director has to supervise and set the regulations for the research and to advice students on the epistemological conception and the scientific instrumental.

The thesis director must be a researcher with a solid training in the chosen specialty and prove suitability for their position through publications in well-known magazines. The Thesis must be carried out at the Faculty. An additional Thesis Director may be appointed when the topic is of an interdisciplinary nature.

Thesis presentation and defense

The Thesis must be a personal and original contribution and will be defended orally and publicly. Students have to hand in 5 copies of the Thesis to the Doctorate Sub-Committee. The latter will present two –together with the report by the Director- to the Doctorate Committee. The jury will be made up of 3 teachers of the specialty. The Thesis Director cannot be part of the jury but will be an advisor. The Thesis can be approved, given back or rejected. Decisions cannot be appealed.

Specialization in Bromatology and Food Technology

General Information

Director: Stella Maris Alzamora

Degree: Specialist in Bromatology and Food Technology

Approximate duration: 2 years

Enrolment period: consult at faculty

Department: Faculty of Exact and Natural Sciences, Faculty of Pharmacy and Biochemistry, Faculty of Veterinarian Sciences, Faculty of Agronomy. Administrative office: Faculty of Exact and Natural Sciences

Contact information

Address: Ciudad Universitaria Pabellón II (C1428EHA)

Telephone: 4576-3333 Fax: (5411)4576-3351

E-mail: postgrado@de.fcen.uba.ar

Course description

Objectives:

To provide highly specialized academic and professional training in the different areas connected to Bromatology and Food Technology

- a) To provide human resources specialized in food technology to the industrial and technical and scientific area.
- b) To incorporate updated personnel in the area of food preservation, elaboration, storage and quality control.
- c) To develop activities that promote analytic, critical and creative skills, integrating knowledge so as to provide solutions to problems concerning food.

Syllabus

Food microbiology. Superior bromatology. Food preservation fundamentals. Industrial food processing. Nutrition applied to food technology. Management, control and quality guarantee in the food industry.

Specialization in Data Mining and Knowledge Discovery.

General Information

Director: Dr. Alejandro Vaisman

Degree: Specialist in Data Mining and Knowledge Discovery

Approximate duration: 18 months

Enrolment periods: February

Department: Faculty of Exact and Natural Sciences, Faculty of Engineering. Administrative office: faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (1428EHA)

Telephone: (5411) 4576-3333 Fax (5411) 4576-3351

E-mail: postgrado@de.fcen.uba.ar

Course description

Objectives

To train people in the fundamentals and practical knowledge so that they will be highly qualified to apply in a creative and rigorous way Data Mining and Knowledge Discovery methods within an interdisciplinary frame and using advanced concepts and instruments- such as the production of knowledge scientifically validated in that discipline.

To generate and maintain research, development and technological transference activities in the area of Data Mining and Knowledge Discovery.

To contribute to the generation and permanent upgrading of human resources for the university context.

Syllabus

Compulsory subjects: Automatic learning. Smart analysis of data. Data Mining. Statistical approach to learning and discovering. Data Mining and Knowledge Discovery in economy and finance. Data Mining and Knowledge Discovery in science and technology.

Specialization in Policies and Management of Science and Technology

General Information

Director: to be named

Degree: Specialist in Science and Technology Policies and Management.

Approximate duration: 2 years

Enrolment period: consult

Department: Faculties of Exact and Natural Sciences; Social Sciences; Law; Pharmacy and Biochemistry; and Philosophy and Art. Administrative Office: Faculty of Pharmacy and Biochemistry.

Contact Information

Address: 956 Junín St. (1413AAD)

Telephone: (5411) 4964-8200/8214

E-mail: posgrado@ffyb.uba.ar

Course description

Objectives

To train graduates who will be qualified to design policies in Science and Technology, and to carry out teaching, planning, promotion, and evaluation of scientific and technological activities.

Syllabus

Science and Technology History. Science, Technology and Society. Epistemology. Statistics. Economy and planning elements. Political economy of science and technology. Economy of technological changes. Organizational structures of innovations. Technology management. Policies of technological innovation. Project elaboration and evaluation. Scientific policies. Management of scientific research. Legal and organizational groundings of public administration.

Optional subjects: Science, education and social development. Science and technology in MERCOSUR. Technological development in Argentina. Projects of technological innovation. Intellectual property. Technology transference. Development, science and technology styles. University-Company relation. International scientific and technologic cooperation.

MA in Medical Molecular Biology

General Information

Director: José Mordoh
Degree: MA of UBA in Medical Molecular Biology
Approximate duration: 2 years
Enrolment periods: consult
Department: Faculties of Exact and Natural Sciences; of Pharmacy and Biochemistry; and of Medicine. Administrative office: Faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria, Pabellón II (C1428EHA)
Telephone: 4576-3333 Fax: (5411) 4576-3351
E-mail: postgrado@de.fcen.uba.ar

Course description

Objectives

To allow graduates to get integrated to the university, scientific, assistance, industrial and health care fields. Graduates will be qualified to make theoretical and practical contributions about molecular biology to the analysis of the human organism.

To develop analytic, critical and creative skills.

To use the tools available in the field of Medical Molecular Biology in the preventive diagnosis and in the treatment of different health problems.

To analyze ethical and legal problems that may arise during the application of new diagnosis and therapeutic techniques.

Syllabus

The MA in Medical Molecular Biology is organized in two cycles: a general cycle compulsory for all students and a specialization cycle that allows students to choose among four different orientations: 1) Molecular oncology; 2) Neurological sciences; 3) Medical Molecular Genetics; and 4) Molecular Microbiology. Each orientation is made up of compulsory and optional subjects.

General compulsory cycle: Molecular biology, Molecular medicine

Orientations:

- 1) Molecular oncology: Molecular oncology and optional subjects
- 2) Neurological sciences: Neurological sciences and optional subjects
- 3) Medical Molecular Genetics: Medical molecular genetics and cytotogenesis. Forensic molecular genetics and optional subjects.
- 4) Molecular microbiology: Molecular microbiology. Molecular Bacteriology. Molecular virology. Molecular parasite studies and optional subjects.

Students can choose among the following optional subjects and / or the seminars, workshops and courses that the MA Committee may propose.

Optional subjects: Statistics; Clinical research methodology; Techniques in cellular and molecular biology; Ethics in Medical molecular biology; Legal notions in medical molecular biology; Computing biology.

MA in Biotechnology

General information

Responsible institutions

Coordinating Committee: made up of representatives of the Faculties of Agronomy, Exact and Natural Sciences, Veterinary Sciences, Law, Pharmacy and Biochemistry, Engineering and Medicine.

Director: Humberto Cisale
Degree: MA of UBA in Biotechnology

Approximate duration: between 18 and 30 months
Enrolment periods: consult
Departments: faculties of Pharmacy and Biochemistry, and of Exact and Natural Sciences.
Administrative office: faculty of Pharmacy and Biochemistry.

Contact information

Address: 956 Junín St. (C1113AAD)
Telephone: 4964- 8214
E-mail: posgrado@ffyb.uba.ar

Course description

Objectives

To provide a high level professional academic training in the development of research, teaching and productive development, as well as in the analysis of technological, economic, social and legal aspects involved in the design and evaluation of policies.

To provide human resources specialized in the technical handling of biotechnical disciplines to the economic and scientific-technical field. To provide the university and the scientific and technical system with teachers, researchers and updated technicians who are oriented to the basic discipline of biotechnology.

Syllabus

First part: Genetic Engineering. Economic aspects of biotechnology. Interaction of microorganisms with their growing environment and their application to fermentative processes. Cellular cultures and their biotechnological applications. Scale changes in biological processes. Basic immunological techniques. Cultures and virus purification. Energetic metabolisms in microorganisms. Preservation of microorganisms with biological importance.
Second part: Culturing of anaerobic microorganisms and identification through physical methods. Structural aspects of peptides and proteins. Technical applications of molecular biology in the diagnosis of virus: genomic probes and chain reaction of polymerase. Application of modern biotechnologies to agriculture. Quality control in biotechnology. Molecular markers in plants. Biotechnological techniques applied to veterinary sciences. Transgenic animals. Biodegradations of industrial waste. Vegetal biotechnology: manipulation of secondary metabolites through in vitro culturing.

Master in Bromatology and Technology of Food Industrialization

General information

Director: Stella Maris Alzamora
Degree: MA of UBA in the Area of Bromatology and Technology of Food Industrialization
Approximate duration: 2 years
Enrolment periods: consult at faculty
Responsible institutions: Faculties of Exact and Natural Sciences, of Pharmacy and Biochemistry, of Veterinary Sciences and of Agronomy.
Department: Faculties of Exact and Natural Sciences, of Pharmacy and Biochemistry, of Veterinary Sciences and of Agronomy. Administrative office: faculty of Exact and Natural Sciences.

Contact information

Address: Ciudad Universitaria Pabellón II (C1428EHA)
Telephone: 4576-3333 Fax: (5411) 4576-3351
E-mail: postgrado@de.fcen.uba.ar

Course description

Objectives

To provide highly specialized academic and professional training in the areas of Bromatology and Technology of Food Industrialization. To supply the industrial and scientific-technical sectors with human resources specialized in food technology. To incorporate teachers and researchers updated in the areas of food preservation, elaboration, storage and quality control, promoting research and scientific-technological development. To develop activities for the promotion of analytic, critical and creative skills, integrating knowledge to provide solutions to problems concerning food.

Syllabus

The MA is oriented towards different areas of knowledge and activities. The knowledge areas are composed mainly of the following disciplines: 1. Mathematics. 2. Physics. 3. Chemistry. 4. Bromatology. 5. Microbiology. 6. Transportation phenomena. 7. Unitary operations. 8. Unitary processes. 9. Nutrition. 10. Quality control and management.

The areas of activities embrace: 1. Theoretical and experimental training. 2. Methodologies and techniques. 3. Scientific research.

Compulsory subjects: Superior bromatology. Fundamentals of food preservation. Food industrial processing. Nutrition. Quality management, control and guarantee in the food industry. Food microbiology. Seminal for Thesis elaboration.

Optional subjects: Food toxicology. Food sensorial features. Microbiologic processes in the food industry. Enzyme studies applied to the food industry. Food legislation. Prediction of vitamin retention in preserved food. Food commercialization. Advances in the minimal processing of fruits: textural, micro structural and microbiological aspects. Economic and financial elements. Company organization and direction. Production planning and programming. Vegetable post-harvesting. HACCP. Predictive microbiology and technology of combined factors: an integrated approach to microbiologic safety in food. Advances in nutrition. Advances in quality management and control. Advances in food microbiology. Thesis.

MA in Data Mining and Knowledge Discovery.

General Information

Director: Jose Alvarez

Degree: MA of UBA in Data Mining and Knowledge Discovery

Approximate duration: 18 months

Enrolment periods: February

Department: Faculty of Exact and Natural Sciences, Faculty of Engineering. Administrative office: faculty of Exact and Natural Sciences

Contact Information

Address: Ciudad Universitaria Pabellón II (1428EHA)

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E-mail: postgrado@de.fcen.uba.ar

Course description

Objectives

To train people in the fundamentals and practical knowledge so that they will be highly qualified to apply in a creative and rigorous way Data Mining and Knowledge Discovery methods within an interdisciplinary frame and using advanced concepts and instruments- such as the production of knowledge scientifically validated in that discipline.

To generate and maintain research, development and technological transference activities in the area of Data Mining and Knowledge Discovery.

To contribute to the generation and permanent upgrading of human resources for the university context.

Syllabus

Basic compulsory subjects: Automatic learning. Smart analysis of data. Data Mining. Statistical approach to learning and discovering. Data Mining and Knowledge Discovery in economy and finance. Data Mining and Knowledge Discovery in science and technology.

Optional subjects: Artificial intelligence. Software administration and elaboration. Data warehousing. Information retrieval. Neuronal networks. Evolutional computer studies. Metaheuristics. Linear regression. Statistics for survey analysis. Multimedia and data mining databases. Thesis Seminars or workshops.

Master in Agrarian Meteorology

General information

Director: Eduardo M. Sierra

Degree: MA of UBA in Agrarian Meteorology

Approximate duration: 3 years

Enrolment period: consult at faculty

Responsible institutions: Faculty of Agronomy and Faculty of Exact and Natural Sciences

Department: Faculty of Agronomy and Faculty of Exact and Natural Sciences. Administrative

office: Faculty of Exact and Natural Sciences

Contact information

Address: Ciudad Universitaria Pabellón II (C1428EHA)

Telephone: (5411) 4 576-3333/32

E-mail: postgrado @ de.fcen.uba.ar

Course description

Objectives

To provide knowledge concerning the relations between agriculture and meteorology and the agrarian, stock breeding and forest activities. For students to get acquainted with theoretical and experimental methods needed in agro meteorological studies.

To develop activities for the promotion of analytic, critical and creative skills, integrating knowledge to provide solutions to agrarian problems.

Syllabus

a) Introductory subjects for professionals with biologic training: Mathematics I. Mathematics II. Mathematics III. General physics. General meteorology. Theoretical meteorology. Synoptic meteorology.

b) Introductory subjects for professionals with meteorological training: General chemistry. Biologic chemistry. Vegetable anatomy and physiology. Animal anatomy and physiology. Introduction to agrarian sciences. Ecology. Edaphology.

c) Compulsory subjects: Agrarian meteorology. Computer studies. Biologic and atmospheric observation. Statistical climatology. Applied micrometeorology I. Laboratory and experimental design. Hydrology. Agrarian and meteorological economy.

d) Optional subjects: Applied climatology. Applied micrometeorology II. Biometeorology. Environmental animal physiology. Agro meteorological models. Adverse factors for agriculture and plant adaptation to environmental stress. Crop eco physiology. Ecology of arid areas.

e) Thesis

MA in Policies and Management of Science and Technology

General information

Director: Carlos Abeledo

Degree: MA of UBA in Policies and Management of Science and technology.

Approximate duration: 2 years
Enrolment periods: consult
Department: Faculties of Exact and Natural sciences; Social Sciences; Law, Pharmacy and Biochemistry; and Philosophy and Arts. Administrative office: Faculty of Pharmacy and Biochemistry.

Contact Information

Address: 956 Junín St. (1413AAD)
Telephone: (5411) 4964-8200/8214
E-mail: posgrado@ffyb.uba.ar

Course description

Objectives:

To develop skills in the understanding of the existing relations between science and technology and the social, political, economic and cultural development.

To develop the capacity of understanding the developmental phenomena and the process associated with the training of human resources, the scientific production, innovation and transference of technology.

To develop expertise in the research of issues concerning technological evaluation and prospecting and policies in science and technology.

To develop competence in the area of instrumental needs used in administration – in the different stages of planning, execution and management control – of scientific and technologic activities.

Syllabus

Compulsory subjects: Science and Technology History. Science, technology and society. Epistemology. Statistics. Economy and Planning elements. Political economy in science and technology. Economy in technological changes. Organizational structures of innovation. Management of technology. Policies of technological innovation. Project elaboration and evaluation. Scientific policies. Management of scientific research. Legal and organizational groundings of public administration.

Optional subjects: Science, education and social development. Science and Technology in MERCOSUR. Technological development in Argentina. Technological innovation projects. Intellectual property. Transference of technology. Developmental, scientific and technological styles. University-Company relation. International scientific and technologic cooperation.

MA in Public Health

General information

Director: Noemí Bordoni
Degree: MA of UBA in Public Health
Approximate duration: 2 years
Enrolment period: consult at Faculty
Responsible institutions: The MA Committee is made up of representatives from the Faculties of Agronomy; Architecture, Design and Urbanism; Economy; Pharmacy and Biochemistry; Philosophy and Arts; Engineering; Medicine; Dentistry; and Psychology.
Department: Superior Board of UBA

Contact information

Address: 950 José E. Uriburu St. 1st floor – Temporary venue- (C1114AAD)
Telephone: 4508- 3618 int. 219
E-mail: masp@rec.uba.ar

Course description

To train people that will be qualified to:

Approach public health as an interdisciplinary, inter and extra sectarian field

Acknowledge the relevance of taking into consideration social participants, their representations and practices in the field of public health.

Evaluate the present characteristics and trends of socio cultural, economic, environmental and political processes concerning their relations with life and health conditions

Propose courses of action to reduce the risks of falling ill and dying.

Promote research about public health concerning its different components:

- a) health situation
- b) health determinants
- c) health resources
- d) evaluation of the interventions in health as regards structure, process and results
- e) care quality

Solve health problems through a process of planning- programming- execution- evaluation.

Syllabus

Area I: Health situation and health-sickness determinants.

Module 1: Health situation: Objective knowledge of health and the need of information.

Epidemiology. Epidemiologic method. Analysis design. Decision analysis. Elaboration, presentation, analysis and interpretation of data. Statistics and variables. Statistical inference. Epidemiological transition and new diseases.

Module 2: Health and society: Social issues in the field of health. Analysis of health conditions regarding socio demographic structures and processes. Social construction. Life and vulnerability conditions.

Module 3: Health and economy: Introduction to health and economy. Economic groundings of health. Economic characterization of the health area. Equity, accessibility and vulnerability.

Module 4.: Health and environment: Environment and development. The environment and its impact on health. Natural environment. Environmental impact. Primary food production. Man made environment. Basic urban drainage. Environmental diagnosis. Synthesis.

Module 5: Bioethics and health: Ethics. Human beings. Intimacy rights. Human rights. Public health.

Area II: Change and transition in Health

Module 1: Politics and health: Health policies. State and society. Compared social policies. Social policies in Argentina.

Module 2: Sectarian transformation.

Module 3: Human rights, ethics and social responsibility.

Area III: Health resources, systems and services:

Module 1: Strategies and interventions in public health

Module 2: Characterization and management of resources in health (human, physical, financial and technological)

Module 3: Health systems: organizations and services.

Area IV: Application – Fieldwork

Area V: Research.