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PLANNING YOUR DEGREE

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USiena - International Office
International Place Università di Siena



Courses in English 2018-2019



1240 Date of foundation

15 Departments

32 Undergraduates programmes

32 Graduates programmes

5 Single Cycle Degree programmes

18 Degree programmes taught entirely in English

24 Doctoral programmes

12 Double degree programmes

47 Third cycle specialization programmes

63 Special short programmes

17000+ Number of students in Degree programmes

405 Number of students in Doctoral programmes

729 Research and Teaching staff

997 Technical and administrative staff



WELCOME IN SIENA

The University of Siena is one of the oldest universities in Europe, having been founded in 1240.

The history of the University of Siena has evolved alongside Tuscany's cultural tradition since the Middle Ages. Siena is located in the heart of Tuscany amid a landscape of gentle rolling hills. Built on three steep hills and encircled by ancient walls, it is a unique city where students can spend a quiet study period, full of opportunities for their personal enrichment.



■ A STRONG INTERNATIONAL MISSION

Over the years the University of Siena has enhanced its strategy for internationalization, aiming to attract students and researchers from all parts of the world. Some of our degrees are taught partially or entirely in English (see next pages) and double degree agreements have been set up (see double degree programmes at www.unisi.it/internazionale).

International Summer Programmes in Siena

International Summer Schools are hosted at the University of Siena:

- Harvard College (USA), Summer Program: "Beauty, leadership and innovation"
- Yale University (USA) - Summer Session
- University of St. Thomas (USA), "Financial Management and Italian Life and Culture"
- University of Texas at San Antonio, (USA): "The Classical World: Anthropology, Art and Culture."
- Alves Faria College, Faculdades ALFA (Brasil), "Democracia e desenvolvimento"
- University of Toronto (Canada), Woodsworth College Summer School.



■ RANKINGS AND ACCREDITATIONS

With over 17,000 students, The University of Siena confirms its position as the best amongst the medium sized Italian Universities for structures, study grants, and internationalization as stated in the Censis Research Institute classification 2017.

According to the classification of the most influential Italian economic newspaper “Il Sole 24 Ore” the University of Siena ranks 6th overall, 6th for quality of teaching and 6th for the research (Il Sole 24 Ore - Classification of Italian Universities 2016).

The University of Siena is also rated at 428th place in the ranking of the best worldwide Universities in the annual classification of the Centre for World University Rankings CWUR (cwur.org/2017).

“Qs World University Rankings by subject” lists the University of Siena as one of the best in the world. In accordance with this ranking, the University of Siena is in high standing on the national and international level in one area and six subjects. (Area of Life Science and Medicine, Archeology, Linguistics, Medicine, Pharmacy and pharmacology, Economics and statistics, Political science and international studies).



Meet your life, build your future

High quality research and teaching, world-famous location



THE ITALIAN UNIVERSITY SYSTEM

FIRST CYCLE (BACHELORS)

This cycle consists exclusively of Corsi di Laurea. These degree programmes provide students with an adequate command of general scientific methods and contents as well as with specific professional skills.

The general access requirement is the Italian school leaving qualification awarded after completion of 13 years of schooling and passing the relevant State examination; comparable foreign qualifications may also be accepted. Admission to some degree courses may be based on specific course requirements.

The studies last 3 years. The Laurea is awarded to students who have gained 180 ECTS credits (called Crediti Formativi Universitari-CFU) and satisfied all curricular requirements, including the production of a final written paper or equivalent final project. The Laurea gives access to the Corsi di Laurea Magistrale as well as to other 2nd cycle study programmes.

SECOND CYCLE (MASTERS)

The main degree programmes in this cycle are the Corsi di Laurea Magistrale. They provide education at an advanced level for the exercise of highly qualified activities in specific areas. Access is by a Laurea degree or a comparable foreign degree; admission is based on specific course requirements determined by single universities. The studies last 2 years. The Laurea Magistrale degree is awarded to students who have gained 120 ECTS/CFU credits and satisfied all curricular requirements, including the production and public defence of an original dissertation.

Some programmes (namely, those in dentistry, medicine, veterinary medicine, pharmacy, architecture, construction engineering/architecture, law, primary education) are defined "SINGLE CYCLE PROGRAMMES" (Corsi a ciclo unico); for these programmes access is by the Italian school leaving qualification (or a comparable foreign qualification); admission is based on entrance exams.

THIRD CYCLE

The main degree programmes in this cycle are Corsi di Dottorato di Ricerca (RESEARCH DOCTORATE PROGRAMMES); the students/young researchers enrolled in these programmes will acquire methodologies for advanced scientific research, will be trained in new technologies and will work in research laboratories, wherever appropriate. Access is by a Laurea Magistrale degree (or a comparable foreign degree); admission is based on a competitive exam; studies last at least three years and include the completion and public defence of an original research project.

OTHER PROGRAMMES

- Corsi di Master Universitario di primo livello (VOCATIONAL MASTER PROGRAMME).

These are 2nd cycle programmes intended to provide students with further specialization or higher continuing education after completion of the first cycle. Access is by a Laurea degree (or a comparable foreign degree); admission may be subject to additional requirements. Studies last at least 1 year (60 ECTS/CFU credits). The qualification awarded (Master Universitario di primo livello) does not give access to Corsi di Dottorato di Ricerca or to any other 3rd cycle programme, since this type of course does not belong to the general requirements established at national level, but it is offered under the autonomous responsibility of each university.

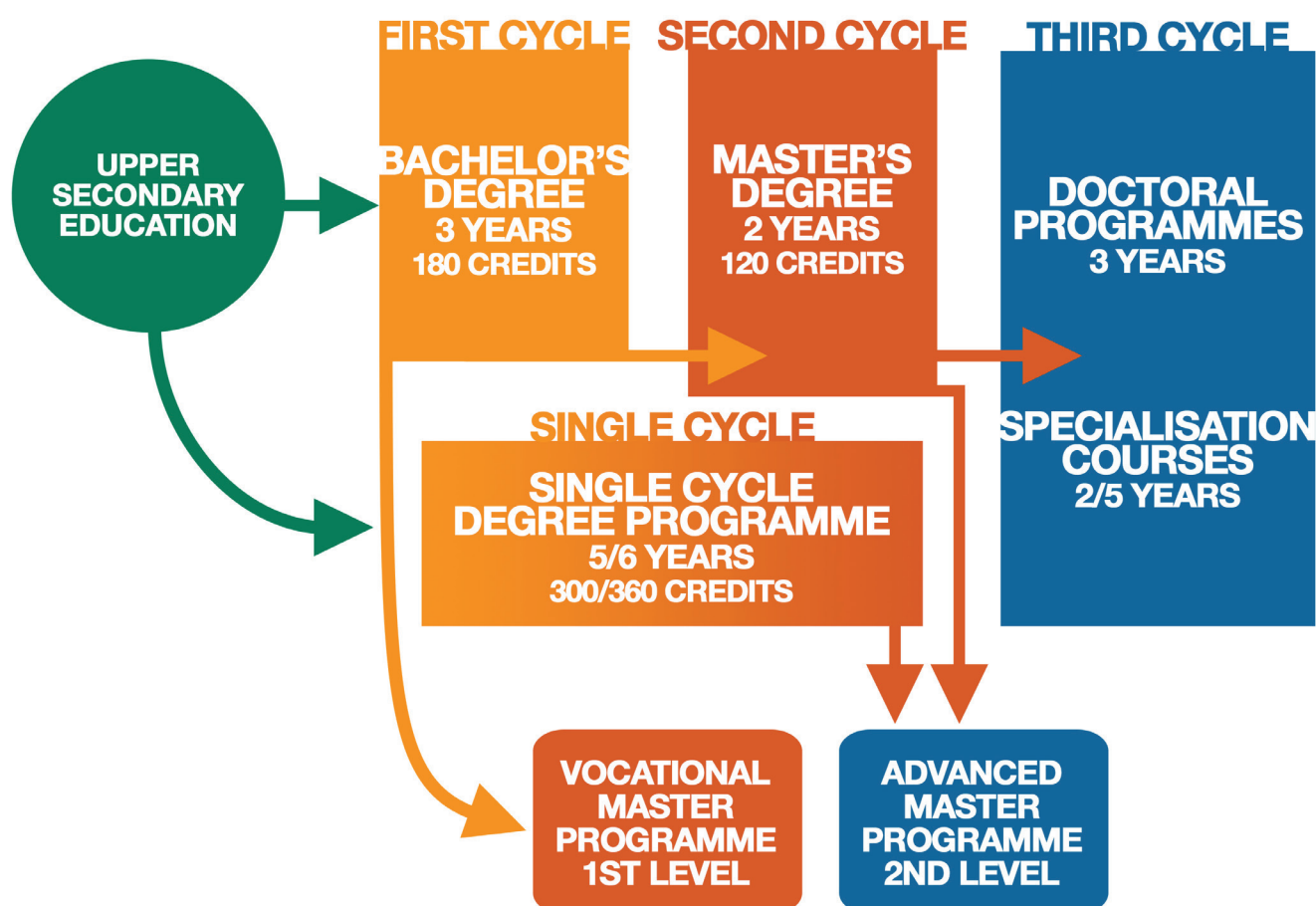
- Corsi di Master Universitario di secondo livello (ADVANCED MASTER PROGRAMME)

These are 3rd cycle programmes intended to provide students with further specialization or higher continuing education studies after completion of the second cycle. Access is by a Laurea Magistrale degree (or a comparable foreign degree); admission may be subject to additional requirements. Studies last at least 1 year (60 ECTS/CFU credits). The qualification awarded (Master Universitario di secondo livello) does not give access to Corsi di Dottorato di Ricerca or to any other 3rd cycle pro-



grammes, since this type of course does not belong to the general requirements established at national level, but it is offered under the autonomous responsibility of each university.

Ref. Italian Education Ministry (MIUR)





COURSES TAUGHT IN ENGLISH

FIRST CYCLE DEGREE COURSES (BACHELORS)

Economics and banking curriculum Economics and banking

The three-year programme in Economics and Banking addresses the fundamentals of financial intermediation within the banking industry, insurance sector and financial markets by providing a sound training in all the core economic disciplines and other social sciences, such as history and law. In this regard, the programme examines how financial institutions and markets function with a particular attention to the micro- and macro-economic dimensions. Graduates in Economics and Banking will develop skills in understanding economic and financial phenomena and have a strong hold on all the core skills required for the analysis of economic issues and of data. Graduates will also attain a significant advantage for progressing to a number of graduate courses and, in particular, for the two MSc programmes in Economics and Finance taught in English at Siena as well as for the two-year programme in Accounting and Management (AMa) of the MSc in Management and Governance.

Economics and business curriculum Economics and management

A three-year degree program focusing on the acquisition of multidisciplinary expertise in economics, management, accounting and statistics. Its purpose is to prepare students to understand how firms work in the increasingly complex social and economic environment they face. Graduates will be able to understand economic and financial phenomena and their effects on markets and firms; they will acquire all the core skills required for analyzing the firm's behavior and for designing the firm's optimal strategy. Graduates will also achieve the necessary background and skills to successfully progress to postgraduate courses

in Italy and elsewhere. The program is organized in three curricula: one of them (Economics and Management) is entirely taught in English.



SECOND CYCLE DEGREE COURSES (MASTERS)

Economics curriculum Economics

The MSc in Economics is a two year graduate programme that aims to provide an advanced level of education in economics. The program is built on four core courses — mathematics, micro-economics, macroeconomics and econometrics — in order for students to acquire advanced tools for economic analysis, and offers a wide array of specialized topics in most fields of modern economics. The programme is designed to give our students the ability to approach a wide variety of economic and social issues.

Double degree with: University of Ljubljana (Slovenia); University of Uppsala (Sweden).



Finance

A two-year MSc program, fully taught in English, designed for students wishing to enhance their understanding of financial analysis in a very interactive environment. Graduates typically go on to work in investment banks, private equity firms, asset managers and non-financial institutions. The curriculum puts a particular emphasis on corporate finance, financial engineering and risk management, quantitative asset management, macroeconomic analysis, quantitative trading, and financial regulation. Helping students to find the right job after graduation is our commitment. Through a mix of theory and practice, interaction with finance practitioners and empirical sessions in our info-providers lab facilities, our MSc has been designed as a smooth transition to the finance industry.

Double degree with: University of Ljubljana (Slovenia); Romanian-American University-Bucarest (Romania).

International studies

curriculum European studies

The Master of Science in International Relations – European Studies aims to provide students with cultural, communicative and methodological abilities in the following fields: history, economics, law, political science, linguistics. These skills are designed to help students develop their ability to understand and analyze the international dimension of contemporary political, economic and social phenomena. This Master's programme focuses on European Union politics and economy, its institutional evolution, its role as a key actor on the global scene. Acquiring analytical tools, institutional knowledge and comparative analysis abilities, our students will be able to understand, evaluate and manage the major issues, challenges and perspectives relating to contemporary European societies.

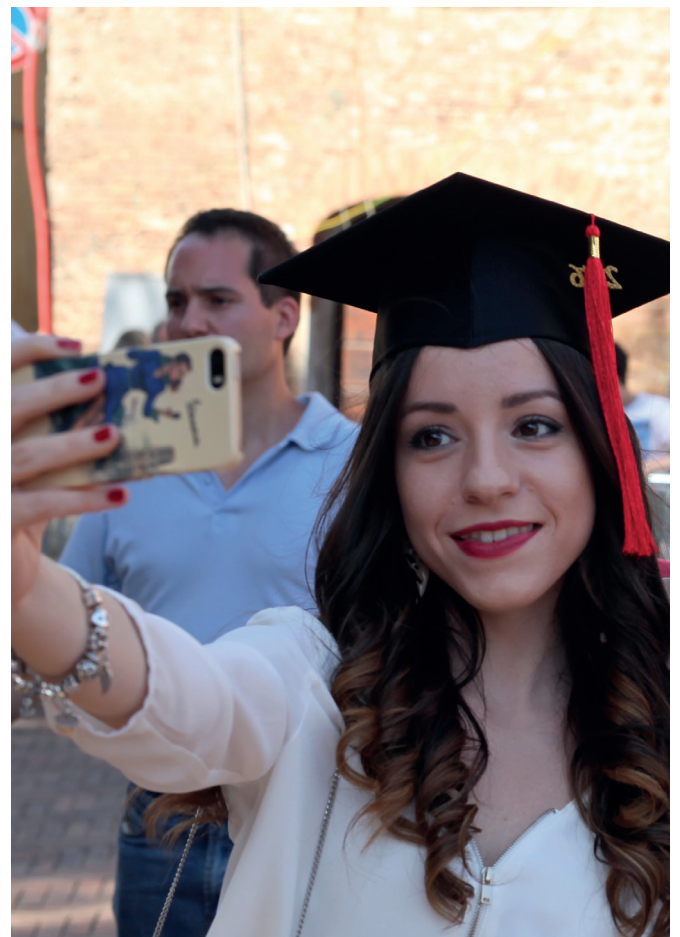
International Accounting and Management

The course aims to provide students with a deep knowledge of the main theoretical and applied concepts in accounting and management, with particular reference to the economic and managerial dynamics in the international context.

Students are familiarized with modern economic and managerial theories, concepts, techniques, and their applications. The aim is to provide students the advanced tools necessary to investigate economic, social, legal, cultural and technological issues.

Particular attention is devoted to the recent evolution and major changes of the firms' operating environment in order to provide students with adequate competencies related to the government, managerial, and organizational processes in different types of firms, operating in diverse businesses (public and private sectors).

Double degree with: Lobachevsky State University of Nizhni Novgorod (Russian Federation).





Public and cultural diplomacy

curricula: Public diplomacy; Cultural diplomacy

The MSc in Public and Cultural Diplomacy provides the necessary skills to work in the fields of international relations, international communication and foreign public engagement. The program focuses on the evolution of diplomacy from classic state-to-state relations, to public diplomacy and now to cultural and global diplomacy, in different geo-political areas. Students will be exposed to a wide set of innovative theoretical and methodological approaches to international relations: soft and smart power strategies, strategies of communication in international contexts, mediation techniques, conflict management in areas of crisis. On the second year students can choose among two different curricula. The curriculum in Cultural Diplomacy will provide the relevant skills to work with the management of the cultural heritage. The curriculum in Public Diplomacy will focus on strategies and techniques for understanding, communicating and influencing international audiences in public, scientific and cultural diplomacy.



Language and mind. Linguistics and cognitive studies

curricula Linguistics and cognition;
Philosophy and cognition

The Master program offers a highly interdisciplinary training, directly connected with the advanced research activities undertaken at the Center for Cognitive Studies on Language (www.ciscl.unisi.it). The program focuses, in both curricula, on the study of language in the perspective of cognitive studies and of the philosophy of language and mind. It is primarily addressed to students interested in the description of human languages, in their different varieties including different dialects; the study of language as a cognitive capacity and its relevance in the domain of first and second language acquisition and language pathology; the study of the philosophical, psychological, biological and social bases of language and cognition; the study of the relevance of the analysis of human language for philosophical studies. Students in the Master program have the option to apply for a double-degree program with the Master program “Logic and philosophy of science (LoPhiSc)” of the University of Paris 1 (classes in French).

Double degree with: University of Paris 1, Panthéon Sorbonne.



Biotechnologies of Human Reproduction

The Course aims to prepare graduates with good theoretical and practical knowledge on reproductive biology and biotechnology. The graduates have the skills to apply the most up-to-date techniques to handle, in vitro fertilize and growth gametes and embryos, in addition to the most recent procedure for cryopreservation, genetic profiling, physiological and functional analyses. Ethic and law complete graduate's preparation. At the end of the biennium, graduates will be competent to operate in laboratories of assisted reproduction and biobanking for reproductive cells and tissues. It is possible to be admitted to the Professional Association of Biologists, after a State certification exam.

Course in English: the course is open access, restricted by possessing specific curriculum requirements

Duration: 2 years, 120 credits

Class LM/9 Pharmaceutical, Veterinary and Medical Biotechnologies



Genetic counsellors

The Master Degree in Genetic Counsellors is the first degree program in Italy that trains the professional figure of the genetic counsellor through the acquisition of the principles and practices of clinical, medical and laboratory genetics. Genetic counsellors are non-medical health figures that work closely with medical geneticists in both public and private medical genetics services. They support the medical geneticist in the main areas of genetic counseling and independently conduct genetic counseling whenever a clinical evaluation/diagnosis of the patient is not required. Among the various areas of activity are the prenatal, pre-conceptual and infertility settings, and the cancer genetics setting. The course will be divided into lectures and practical activities.

Numerus clausus: No

Language: English

Duration in years: 2

MIUR degree class: Classe LM/9 - Medical, veterinary and pharmaceutical Biotechnologies

Medical biotechnologies

The Master degree in Medical Biotechnologies at the University of Siena has incorporated key features to prepare the modern Medical Biotechnologist for future challenges, by focusing on those concepts and theories which are mostly important for creating a stable platform to develop technical know-how and skills. The technical skills of the student begin with learning in a controlled laboratory environment. As students progress, they will be taught to think and solve problems analytically through modules that were specially designed for them to make independent decisions. The University of Siena is particularly skilled in the field of medical and pharmaceutical sciences and the Faculty members are engaged in active research work, providing a suitable environment for the student to experience the thinking, planning, application and discussion related to research.



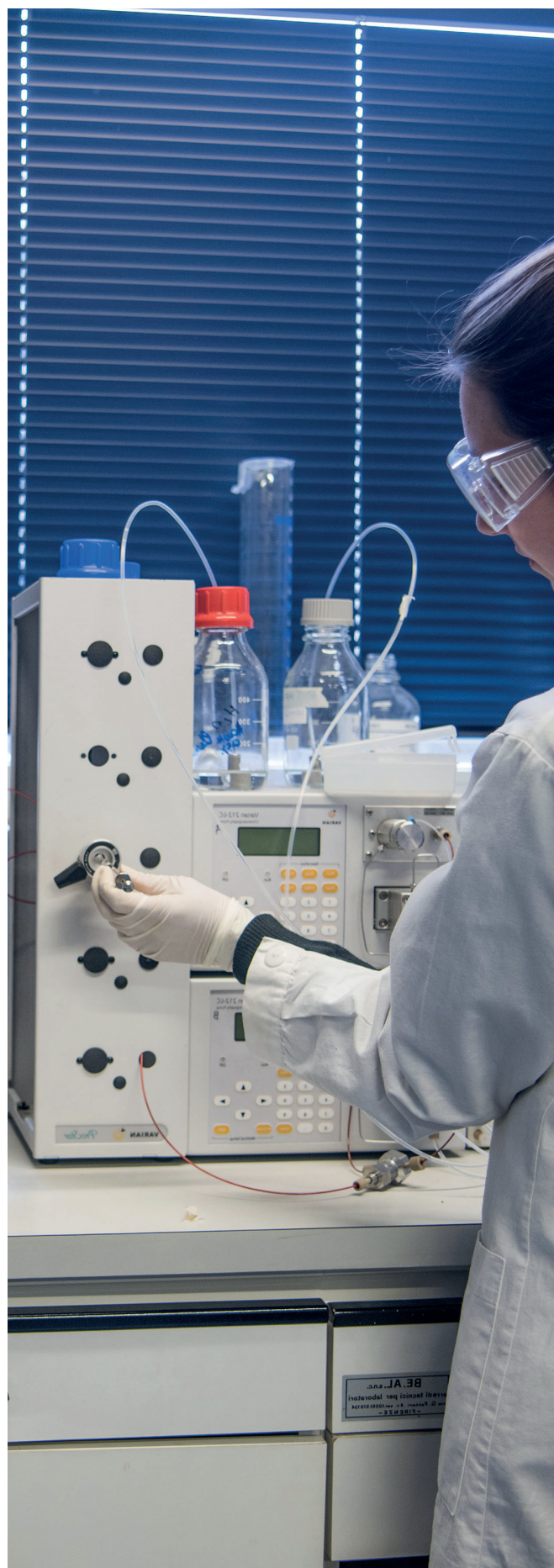
Biology

curriculum Biodiversity and environmental health

Biodiversity and Environmental Health” is one of the two educational paths of the MSc program in Biology of the University of Siena. The course aims to provide insights into the field of biodiversity and the ways of its interlinking with planetary health. Themes in the areas of microbial, fungal, plant and animal diversity will be covered, either by lectures and laboratory based activities. Modules focusing on conservation biology and resource management will be addressed to train students on environmental sustainability, by defining the role of living organisms within ecosystems and applying monitoring and control techniques in order to preserve their diversity. Critical issues concerning the contribution of biodiversity to the development of pharmaceuticals and the quality and safety control of food sources will be also considered. Altogether, the course is designed to prepare a new generation of experts able to research and apply integrated approaches to biodiversity and planet health.

Chemistry

The Master Degree prepares students with an advanced knowledge and skills in the most important areas of Chemistry (Physical, Inorganic, Organic and Biochemistry). These studies will prepare the student for a wide range of professional activities as well as continued doctoral studies. Lessons are complemented with specific lectures on subjects related to chemistry for life science or for sustainable development. The second year activity includes with 300 hours of internship in companies working in all fields of chemistry. The students complete their studies by participating in a high level research project (6-8 months) within international research groups at the University of Siena or other public or private institutions. Students have the opportunity to apply for an international double degree.



Applied mathematics

The Master of Science in Applied Mathematics aims at training specialists that, besides a solid basis in the fundamentals of mathematics, have also an extensive knowledge of problems and methods in related areas of science and technology. After broadening their knowledge of theoretical aspects of mathematics with advanced courses in logic, algebra, geometry and calculus, and of application-oriented areas such as statistics, mathematical modeling, numerical analysis and optimization, the students will complete their plan of study with subjects related to more applied fields, like data analysis or the study of complex systems. These specialists will therefore be able to analyze problems not only within the mathematical domain but also in related sectors, to identify the mathematical instruments necessary to formalize and solve them, and to interact effectively with experts of other disciplines (computer science, engineering, economics and experimental sciences).



Computer and automation engineering

curricula Information systems;
Robotics and automations

The MSC in Computer and Automation Engineering aims at providing high-level competences for the design, management, development and innovation in the fields of advanced hardware and software architectures, and of control systems and robotics. In particular, the program is focused on human-machine interaction in a wide sense, spanning topics such as artificial intelligence, machine learning, high performance processing of massive data collections, human-robot interfaces, and systems for production automation. The program provides advanced competences in the area of computer and automation engineering. To get admission in this course of studies students must possess: a background in mathematics, statistics and physics, equivalent to the one achieved in first-level (BA) engineering degrees; basics principles of computer science, control, electronics and telecommunications; basic programming skills.

Electronics and communications engineering

The Master's Degree in Electronics and Communications Engineering aims to form a graduate with advanced skills in processing and information-transmission systems of and to provide more specific knowledge in the design of devices and electronic systems. It provides the skills and methodological tools needed to design and develop systems for signal and image processing, antenna design, microwave systems and devices, analog and digital electronic design with applications in the fields of electronics, telecommunications. The program provides methodologies of advanced mathematical calculus, in particular functional and complex analysis, in order to introduce the necessary tools to model and formalize the solutions of complex information engineering problems.

Double degree with: Universidad Carlos III de Madrid (Spain)



Engineering management

The MSc in Engineering Management provides high-level competences for modeling, optimization, decision making and management of organizations. The study programme is focused on industrial economics and marketing, planning of innovation processes and project management. The course also provides fundamentals of mathematical modeling, data and decision analysis and optimization of complex systems. Graduates in Engineering Management at the Department of Information Engineering and Mathematics are interdisciplinary managers with advanced problem solving skills and a holistic view on modern companies in today's economic and social context, thus able to develop innovative and sustainable solutions for complex organizations. To get admission in this course of studies students must possess background in mathematics, statistics and physics, equivalent to the one achieved in first-level (BA) engineering degrees; basics principles of economics, management and programming. Career opportunities: the multidisciplinary approach backed by quantitative methods can be applied to several sectors including production and logistic, financial, consultancy, healthcare or energy sectors among others. Hence graduates in Engineering Management are hired in a wide range of positions by companies and organizations of all sizes.

SINGLE CYCLE DEGREE COURSES

Dentistry and dental prosthodontics

The main goal of the new Undergraduate Program in Dentistry (in english language) is to graduate doctors with high clinical skill, sound knowledge and high responsibility on taking care of the oral health of patients. The students will take courses on basic sciences, such as physiology and pathology of oral environment, medical topics related to dentistry, and all dental topics such as restorative dentistry, endodontics, periodontology, oral surgery, implantology, prosthodontics, orthodontics, gnatology, etc. Each topic will be shown by class and practical parts, in order to increase and improve the knowledge, proper behavior, practical skills and adequate communication of our students. The undergraduate program is based on the recommendation of ADEE (Association of Dental European Education) and of the Italian Minister of Education. During the last year, all students must work on patients daily, using also new digital dentistry devices and new dental materials.





PLANNING YOUR DEGREE

FIRST CYCLE DEGREE COURSES (BACHELORS)

ECONOMICS AND BANKING

CURRICULUM ECONOMICS AND BANKING

FIRST YEAR	cfu
Economic History	9
Political Economy	9
Principles of Mathematics	9
Statistics	9
Business Administration	9
Public Law	9
SECOND YEAR	
Macroeconomics	9
Microeconomics	9
Accounting	9
Financial Mathematics	9
Private Law	9
Corporate Finance	9
English for Business and Finance	6
THIRD YEAR	
International Economics	9
Economics of Money and Banking	9
Financial Institutions Management	9
Business Law	9
One course to be chosen between:	
Financial Markets	9
Banking Management	9
Free choice	12
One course to be chosen among:	
Computer Tools	6
Internship	6
French/Germany/Spanish B1	6
Thesis	3

ECONOMICS AND BUSINESS

CURRICULUM ECONOMICS AND MANAGEMENT

FIRST YEAR	cfu
Economic History	9
Political Economy	9
Principles of Mathematics	9
Statistics	9
Business Administration	9
Public Law	9
English for Business & Finance	4
SECOND YEAR	
Macroeconomics	9
Microeconomics	9
Accounting	9
Financial Mathematics	9
Private Law	9
Management Control	9
Management	6
THIRD YEAR	
International and European Trade Law	9
Marketing	9
Business Law	9
One course to be chosen between:	
Cost Accounting	9
Public Management	9
Free choice	12
One course to be chosen among:	
Soft skills	2
Internship	2
French/Germany/Spanish B1	2
Thesis	3



■ SECOND CYCLE DEGREE COURSES (MASTERS)

ECONOMICS

CURRICULUM ECONOMICS

FIRST YEAR	cfu
Mathematics for economic applications	6
Microeconomics I&II	12
Macroeconomics	6
Econometrics I&II	12
Public economics	6
International management	6
English for economics & business	6
SECOND YEAR	
3 electives in Economics:	
Monetary economics	6
Growth and development	6
Economic dynamics	6
Industrial organization	6
Game Theory and Social Choice	6
Post-Keynesian Economics	6
Behavioral economics	6
Economic organization and theories of the firm	6
Advanced Mathematical Methods for Economics and Finance	6
Economic History	6
Financial Investments and risk management	6
1 elective in Law:	
International banking and financial regulation	6
Competition Law and Policy	6
Others at student's choice	12
Other activities	3
Thesis	21

FINANCE

FIRST YEAR	cfu
Microeconomics for Business and Finance	6
Econometrics	6
Fundamentals of Programming	6
Financial Modeling I	9
Financial Investments and risk management	9
Corporate Valuation	9
Information Technology for Business and Finance	6
One activity chosen between:	
Santa Chiara Lab Training	6
Internship	6
SECOND YEAR	
Monetary Economics	6
Financial Modeling II	9
International Banking and Financial Regulation	6
Three courses chosen from:	
Statistics for Business Decision Making	6
Economics of Sustainable Development	6
International Financial Accounting	6
Active Portfolio Management	6
Financial Engineering	6
Asset Allocations	6
Advanced Financial Modeling	6
Advanced Financial Markets	6
Alternative Assets	6
Applied Econometrics	6
Corporate Treasury Management	6
Interest Rate Derivatives	6
International Comparative Tax Law	6
Structured Finance and Insurance	6
Behavioral Economics	6
Free choice	9
Thesis	15



INTERNATIONAL STUDIES

CURRICULUM EUROPEAN STUDIES

FIRST YEAR	cfu
Contemporary european history	9
European macroeconomics	6
Environmental economics	6
European human rights protection	6
European union politics	9
Comparative politics	9
UE Language	6
Informatics skills	3
English level test C1	4
SECOND YEAR	
International economic law	6
Monetary economics	6
History of international relations	9
UE Language	6
Free choice	9
Traineeship	4
Other	4
Thesis	18



INTERNATIONAL ACCOUNTING AND MANAGEMENT

FIRST YEAR

International Management	6
Strategic Management	6
Two courses to be chosen among:	
Financial Accounting	6
Public Management	6
Advanced Management Control and Sustainable Development	6
Business Law	6
Advanced European Union Law	6
One course to be chosen between:	
Microeconomics for Business and Finance	6
Comparative Law	6
International Tax Law	6
Entrepreneurship and Innovation Management	6
Knowledge Management	6
Others at student's choice	12
One course to be chosen between:	
English for Economics & Business, Foreign languages enhancement*, Professional Training*, Santa Chiara Lab* (*Activities on a 3 ECTS basis that students can combine to complete the total amount of credits provided by the study plan (n. 6) for the other activities useful for entering the world of work)	6

SECOND YEAR

Corporate Valuation	9
Industrial Organizations	9
Statistics for Business Decision Making	9
Models of Capitalism	9
Thesis	24



PUBLIC AND CULTURAL DIPLOMACY

CURRICULUM PUBLIC DIPLOMACY

FIRST YEAR

International Relations	9
Public Diplomacy	9
Culture and Economics	6
Rule of Law and Human Right	9
Global Comparative Politics	6

Two courses to be chosen among:

Cultural Heritage and Public Diplomacy	6
Antropology of Cultural Heritage	6
Geography and Sustainability	6
Cultural Diplomacy	6

One course to be chosen among:

Chinese Language and Cultures	9
Arabic Language and Cultures	9
Culture and Institutions in Latin America	9

SECOND YEAR

New Media and Globalization	9
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Two courses to be chosen among:

Sports and Culture	6
Public Diplomacy and International History	6
Language, Society and Ideology	6

Comunicative competence in English Level B2	3
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Chosen by the student	12
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Job training and guidance	9
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Other knowledge needed to enter the world of work	3
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Final test	12
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PUBLIC AND CULTURAL DIPLOMACY

CURRICULUM CULTURAL DIPLOMACY

FIRST YEAR

International Relations	9
Cultural and Economics	6
Rule of Law and Human Rights	9
Cultural heritage and cultural relationships	9
Global Comparative Politics	6

Two courses to be chosen among:

Cultural Heritage and Public Diplomacy	6
Antropology of Cultural Heritage	6
Geography and Sustainability	6
Cultural diplomacy	6

One course to be chosen among:

Chinese Language and Cultures	9
Arab Language and Cultures	9
Culture and Institutions in Latin America	9

SECOND YEAR

New Media and Globalization	9
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Two courses to be chosen among:

Prehistory and intercultural relationships: ancient technologies and environmental resources	6
Monitoring the Mediterranean Cultural Heritage: archaeological strategies, methods and techniques	6
Written records, books and libraries as the world's memory and citizenship	6

Comunicative competence in English Level B2	3
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Chosen by the student	12
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Job training and guidance	9
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Other knowledge needed to enter the world of work	3
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Final test	12
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LANGUAGE AND MIND: LINGUISTICS AND COGNITIVE STUDIES

CURRICULUM LINGUISTICS AND COGNITION

FIRST YEAR	cfu
Syntactic structures and compositional semantics	12
Logic and theory of meaning	12
Philosophy of mind	12
Theory of grammar and language acquisition	6
Language, society and ideology	6
Academic English and translation	6
Computational linguistics	6

SECOND YEAR

Morphosyntax and experimental studies on language	6
Psycholinguistics	6
Theory of grammar	6
Corpus approaches to discourse analysis	6
Chosen by the student	12
Suitability second language level C1 or C2	3
Job training and guidance	3
Final test	18

LANGUAGE AND MIND: LINGUISTICS AND COGNITIVE STUDIES

CURRICULUM PHILOSOPHY AND COGNITION

FIRST YEAR	cfu
Syntactic structures and compositional semantics	12
Logic and theory of meaning	12
Philosophy of mind	12
Theory of grammar and language acquisition	6
Language, society and ideology	6
Academic English and translation	6
Epistemology	6

SECOND YEAR

Theory of argumentation	6
Logic of Natural language	6
First order logic	6
Theory of science and theory of knowledge	6
Chosen by the student	12
Suitability second language level C1 or C2	3
Job training and guidance	3
Final test	18



BIOTECHNOLOGIES OF HUMAN REPRODUCTION

FIRST YEAR	cfu
Anatomy and histology of reproductive system	12
Physiology of Reproduction	12
Biology of human fertility	12
Pathology of reproduction	6
Assisted reproductive techniques	12
Embryo implantation and development	6
Public health and human fertility	6
SECOND YEAR	
Management of infertile couple	16
Etic and Law in ART	6
Pharmacology	6
Reproductive toxicology and Animal models	5
Communicative competence in English Level B2	3
Chosen by the student	8
English C1 level	3
Training period	1
Final Examination	15

GENETIC COUNSELLORS

FIRST YEAR	cfu
Human Genetics	10
Formal genetics, statistics, probability and risk	10
Ethical, Legal and Social implications in Genetics	6
Laboratory genetics and OMICs approaches	8
Clinical genetics approaches and personalized medicine	13
Counselling in Fetal Disorders and Preimplantation Genetic Diagnosis	6
Choosing the student	4
Training and orientation training	1
SECOND YEAR	
Psychological Issues in genetics	12
Gene Therapy	10
Medical Genetics and Clinical Trials	6
Psychological issues in counselling	6
Counselling skills	12
Chosen by the student	4
Final Examination	3



MEDICAL BIOTECHNOLOGIES

FIRST YEAR	cfu
Advanced biochemistry	8
Advanced microbiology	14
Next generation Genomics	6
Vaccine discovery and development	6
Clinical microbiology	10
Medical genomics	6
Reproductive health and regenerative medicine	9
Chosen by the student	3
SECOND YEAR	
Advanced neurology	9
Experimental pathology & immunity	9
Oncology and molecular immuno-pathology	11
Activities' training optional subjects	4
Internship training and guidance	1
Language skills	3
Chosen by the student	5
Final round	20



BIOLOGY

CURRICULUM BIODIVERSITY AND ENVIRONMENTAL HEALTH

FIRST YEAR	cfu
Evolution of biodiversity of terrestrial plants	6
Biodiversity of fungi	6
Biodiversity of terrestrial animals	6
Microbial biodiversity	6
Conservation biology	6
Biodiversity and pharmaceuticals	13
Two among:	
Plant nutritional physiology	6
Reproductive biology of pest insects	6
Monitoring biodiversity	6
Proteome science	6
Biodiversity and infectious diseases	6
Quality control of food	6
Food safety and human health	6
Test of competence in English (B2)	3
SECOND YEAR	
Molecular applied zoology	6
Applied ecology and environmental management	6
Biodiversity and environmental quality	6
Others at student's choice	12
Traineeship	6
Thesis	26





CHEMISTRY

FIRST YEAR	cfu
Advanced Physical Chemistry (I e II mod.)	12
Advanced Inorganic Chemistry (I e II mod.)	12
Advanced Organic Chemistry (I e II mod.)	12
Advanced Analytical Chemistry	6
Advanced Biological Chemistry	6
Choice of 2 among:	
<i>Group 1 (Chemistry for life):</i>	
Protein Crystallography	6
Surface Chemistry and Nanomaterials	6
Elements of Computational Organic Spectroscopy	6
<i>Group 2 (Chemistry for sustainable development):</i>	
Neutraceutical and Food Chemistry	6
Industrial Biotechnology	6
Environmental Spectroscopy	6
SECOND YEAR	
Chosen by the Student	12
Choice among:	
<i>Group 1 (Chemistry for life):</i>	
NMR applications for Food Chemistry	6
Informatics for chemistry and biology	6
Smart materials and nanocarriers	6
<i>Group 2 (Chemistry for sustainable development):</i>	
Sustainable and efficient energy	6
Green Chemistry and Catalysis	6
Remediation of contaminated sites	6
Health and Safety Safeguard in the Working Environment	1
Internship in a Company/in a research lab	11
Experimental project for final dissertation	30

APPLIED MATHEMATICS

FIRST YEAR	cfu
Mathematical Logic	6
Foundations of Mathematics	6
Advanced Geometry	6
Advanced Analysis	6
Advanced Algebra	6
Numerical Analysis	6
Optimization	6
Choice among:	
Mathematical Physics	6
Mathematical Statistics	6
English (B2)	3
Chosen by the student	6
Suggested choices:	
Graph Theory	6
Formal Systems	6
SECOND YEAR	
Choice among (24 cfu):	
Graph Theory	6
Discrete Mathematics	6
Information Theory	6
Formal Systems	6
Educational Mathematics	6
Foundations and Languages for Bioinformatics	12
Artificial Intelligence and Machine Learning	12
Data and Financial Analysis	12
Differential Equations and Complex Systems	12
Advanced Database Systems	6
Game Theory	6
Fuzzy and Real Time Modeling	6
Multilinear Geometry	6
Chosen by the student	12
Final Examination	27



COMPUTER AND AUTOMATION ENGINEERING

CURRICULUM INFORMATION SYSTEMS

FIRST YEAR	cfu
Automata and queueing systems	6
Advanced digital image processing	9
High performance computer architecture	9
Machine learning	6
Advanced database systems	6
Artificial Intelligence	9
Models and languages for bioinformatics	6
Network optimization	6
Linguistic Skills (English B2)	3
SECOND YEAR	
Design of applications, services and systems	9
Choice among (24 cfu):	
Bioinformatics	6
Language processing technologies	6
Human-centered robotics	6
Multivariable and non-linear control	6
Data analysis	6
Traineeship	9
Final Examination	18

COMPUTER AND AUTOMATION ENGINEERING

CURRICULUM ROBOTICS AND AUTOMATION

FIRST YEAR	cfu
Discrete event systems	9
Complex dynamic systems	6
Human-centered robotics	6
Machine learning	6
Artificial Intelligence	9
Mathematical methods for engineering	6
Network optimization	6
Sensors and microsystems	6
Linguistic Skills (English B2)	3
SECOND YEAR	
Multivariable, non-linear and robust control	9
System identification and data analysis	9
Choice among (18 cfu):	
Design of applications, services and systems	9
High performance computer architecture	9
Bioinformatics	6
Language processing technologies	6
Advanced database systems	6
Models and languages for bioinformatics	6
Traineeship	9
Final examination	18



ELECTRONICS AND COMMUNICATIONS ENGINEERING

FIRST YEAR	cfu
Advanced digital image processing	9
Analog circuit design	6
Microwave engineering	9
Networking	6
Reliability and design for safety	6
Mathematical methods for engineering	6
Statistical signal processing	6
Antennas and propagation	9
Linguistic Skills (English B2)	3
SECOND YEAR	
Digital communication	9
Information theory	6
Choice among (18 cfu):	
Design of application and services	6
Electric system and energy market	6
Industrial measurements and digital embedded electronics	6
RFID technologies	6
Communication technologies for energy	6
Mobile communications and security	6
Multimedia forensics laboratory	6
Sensors and microsystems	6
Traineeship	9
Final Examination	18

ENGINEERING MANAGEMENT

FIRST YEAR	cfu
Project and human resource management	6
Management information systems	6
Complex dynamic systems	6
Automata and queueing systems	6
Production and supply chain management	12
Innovation management	6
Data and decision analysis	9
Game theory	6
Altre attività per ulteriori conoscenze linguistiche (Inglese livello B2)	3
SECOND YEAR	
Industrial organization and marketing	9
Models for financial applications	6
One to three courses to be chosen among:	
Systems and processes in health services	6
Modelling and simulation for biological systems	6
Health technology assessment	6
Lean management	6
Electric system and energy market	6
Technologies for environmental resource management	6
Virtual and rapid prototyping	6
Reliability and design for safety	6
Human Centered Robotics	6
Internship	9
Thesis	18





■ SINGLE CYCLE DEGREE COURSES

DENTISTRY AND DENTAL PROSTHODONTICS

FIRST YEAR	cfu
Histology and Anatomy	16
Quantitative Methods	11
Scientific Methods and Behavioral Sciences	9
Chemistry	7
Applied Biology	7
Scientific English	4
Chosen by the student	6

SECOND YEAR	
Physiology	9
Biochemistry and Biology	9
Diagnostic Imaging and Radiotherapy	6
Basics of Dentistry	18
General Pathology and Oncology	10
Pathologic Anatomy	6
Chosen by the student	2

THIRD YEAR	
Medical Sciences I	16
Microbiology and Hygiene	13
Oral Pathology and Dermatology	11
Dental Materials and Prosthetic and Laboratory Technologies	14
Pharmacology	6

FOURTH YEAR	
Medical Sciences II	12
Gnathology	4
Neurology and Psychiatry	5
Oral and Dental Sciences	30
Oral Surgery	5
Legal Medicine	4

FIFTH YEAR	
Dental Prosthodontics	6
Implantology	12
Orthodontics	9
Pediatric Dentistry	6
Periodontology	6
Restorative Dentistry	12
Maxillo-Facial Pathology and Therapy	9

SIXTH YEAR	
Integrated Oral and Dental Therapy I	24
Integrated Oral and Dental Therapy II	26
Final Test	10



POSTGRADUATE AND OTHER PROGRAMMES

The University of Siena runs a variety of postgraduate schools and doctoral research schools.

The University also organizes vocational and advanced master's programmes, training, advanced training and refresher courses and summer schools, with a choice of two starting dates per year.

Information on the selection procedure is available at the following address:

Training and Postgraduate Education Office -
post-laurea@unisi.it

POSTGRADUATE SCHOOLS

The Postgraduate Schools aim to provide graduates with the knowledge and experience required to carry out specific professional activities. Postgraduate schools train graduates for professions involving particularly complex knowledge and technologies, which require a division of skills into distinct areas.

HEALTHCARE SPECIALIZATION SCHOOLS

- Anatomical pathology
- Anaesthesiology, intensive care and pain therapy
- Cardiac surgery
- General surgery
- Maxillofacial surgery
- Pediatric surgery
- Reconstructive and aesthetic surgery
- Vascular surgery
- Dermatology and venerology
- Endocrinology and metabolic disease
- Geriatrics
- Medical genetics
- Gynecology and midwifery
- Hygiene and preventive healthcare
- Cardiovascular disease
- Infectious and tropical diseases
- Emergency medicine
- Internal medicine
- Neurology
- Ophthalmology
- Medical oncology
- Orthopedics and traumatology
- Otorhinolaryngology

- Clinical pathology and biochemistry
- Pediatrics
- Psychiatry
- Radiodiagnostics
- Radiotherapy
- Rheumatology

OTHER SPECIALIZATION SCHOOLS

- Historical and artistic assets
- Legal jobs





DOCTORAL PROGRAMMES

The University of Siena has set up Doctoral Programmes for young people with particular expertise in the field of research who wish to obtain the qualification of PhD. The Doctoral Programmes offer a wide variety of programmes on specific scientific topics.

Admission to the Doctoral Programmes is subject to a selection process, which is open to those in possession of an Italian second cycle degree (or degree awarded under the previous Italian system) or an equivalent qualification awarded by a foreign university.

Each year at least half of the number of doctoral students admissible to each Doctoral Programme will receive a scholarship. These are awarded according to a list of merit drawn up following the admission examination and the exact number of grants is redefined on an annual basis.

- Courses begin on October 1st or November 1st of each year, according to the proposals of the individual Academic Boards and the decisions of the Academic Senate.
- Competition announcements for admission to the Doctoral Schools are issued from April/May.
- The selection procedures will be completed by September 15th for the Doctoral Programmes in which courses begin on October 1st, and by October 15th for the Doctoral Programmes in which courses begin on November 1st

GUIDELINES TO THE ONLINE APPLICATION PROCEDURE FOR DOCTORAL RESEARCH PROGRAMMES

The online procedure comprises two phases:

1. Registration of candidates' personal information
2. Application for admission exam.

Candidates who have already registered on the platform: <https://segreteriaonline.unisi.it>

And therefore have the credentials (username and password) for access to online services should go straight to Phase 2, "Application for admission exam".

DOCTORAL PROGRAMMES XXXIII CYCLE A.A. 2017/2018

Field of experimental sciences

- Biochemistry and molecular biology (ENG)
- Experimental physics
- Informatics (ITA/ENG)
- Information engineering (ENG)
- Industrial engineering
- Chemical and pharmaceutical sciences (ENG)
- Earth sciences
- Life sciences (ENG)
- Environmental, geological and polar sciences and technologies (ITA)
- Smart Computing

Field of Biomedical and medical sciences

- Medical biotechnologies (ITA/ENG)
- Genetics, oncology and clinical medicine (ENG)
- Molecular medicine (ENG)
- Neurosciences

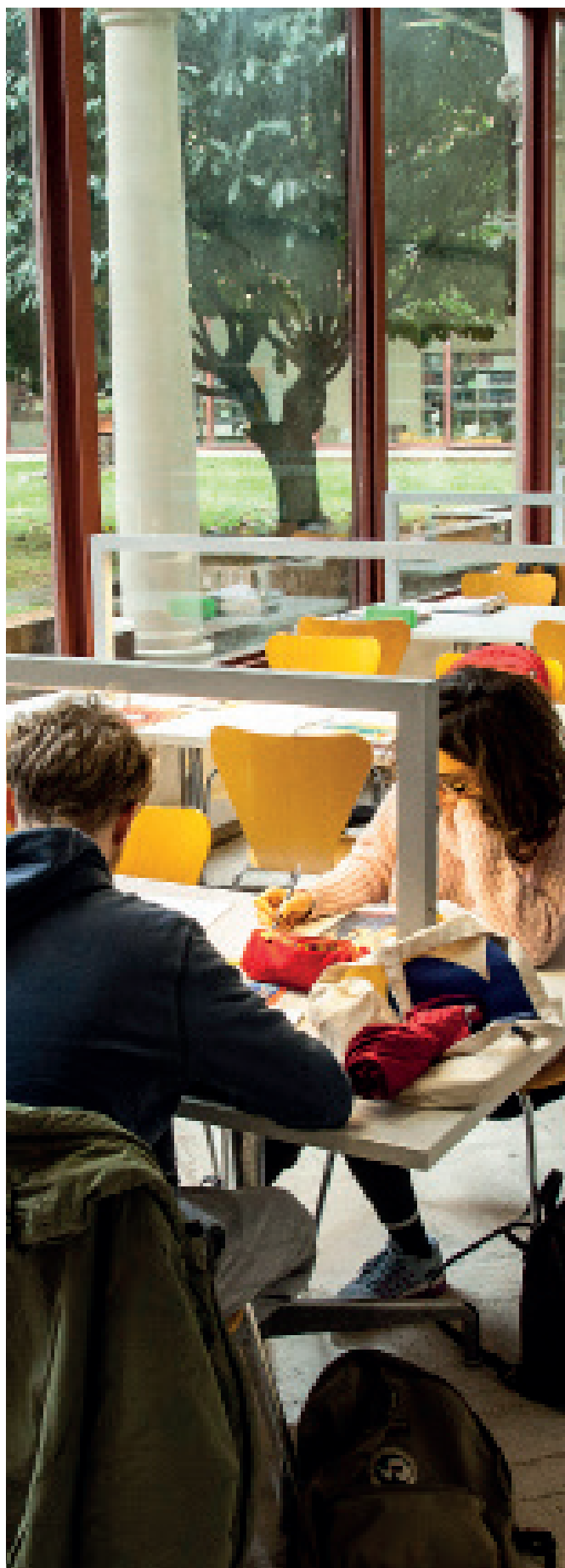
Field of Letters, History, Philosophy and Arts

- Philology and literary criticism (ITA/ENG)
- Historical and educational linguistics, italianistic studies. Italian and other language and cultures
- Antiquity and archaeology
- History of visual and performance arts
- Italianistic studies
- History

Field of Economics, Law and Political sciences

- Corporate business and management
- Economics (ENG)
- Political Science, European Politics and International Relations
- Legal studies (ITA)

More info at: PhD Office - ufficiodottorato@unisi.it



UNIVERSITY MASTER'S DEGREE PROGRAMMES

The University's master's degree programmes are lifelong and continuing education courses that last 10-16 months and are accessible to graduates with a first cycle (for the first level master's) or second cycle (for the second level master's) degree.

A minimum of 60 credits must be obtained to achieve the qualification of "master". Master's programmes may also be run in collaboration or under agreements with public or private external bodies.

VOCATIONAL MASTER'S PROGRAMME

1st level

- Enterprise communication. Language, tools and technology (ita/eng)
- Obstetrical echography in midwifery
- Engineering geology (ENGEO)
- Hydrocarbons searching and production (MSEPI)
- Physiotherapy in sports (Master Executive)
- Phytotherapy fundamentals
- Genetic counsellors and nurses (Master Executive)
- Geomatics (GEOM)
- Environment geotechnologies (MSGA)
- Global governance, inter-cultural relations and peace-process management (Master Executive - eng)
- Midwifery and welfare network: territory, family, community
- Midwifery and legal obstetrics
- Digital text and publishing
- Health professions management (ita/eng)
- Complementary and alternative medicine
- Mutuality and supplementary healthcare - MUTUASI (Master Executive)
- Genetic and molecular pathology
- Coastal areas planning (ARCO)
- Jewels history and design (Master Executive)
- Techniques of macro-diagnostic, in pathological anatomy
- Wine sustainability management (Master Executive)



ADVANCED MASTER'S PROGRAMME

2nd level

- Food, territory and health (master executive)
- Medical biotechnologies and human reproduction
- Drug design and synthesis (eng)
- Endodontia and fixing dentistry
- Engineering geology
- Hydrocarbons searching and production (ita/eng)
- Phytotherapy
- Chinese and Western phytotherapy in complementary medicine
- Clinical genetics (ita/eng)
- Geomatics
- Environment geotechnologies
- Archaeology geotechnologies (GTARC)
- Implantology and dental fittings
- Lean health care management (Master Executive)
- Cosmetic medicine (MAME)
- Coastal areas planning
- Prosthodontic sciences (Master Executive)
- Prosthodontics, esthetics and digital dentistry (Master Executive)
- Public health, pharmaceutical biotechnology and clinical development (Master Executive)
- Cosmetic science and techniques
- Pharmaceutical industry technologies

More info at:

Master universitari

Ufficio Master e corsi

master-corsi@unisi.it





ENROLMENT OVERVIEW

Pre-enrolment: open for non-EU international students. The calendar for the procedure of enrolment to the Italian Universities is available online (the webpage of the Ministry is in Italian language).

www.studiare-in-italia.it/studentistranieri

International students wishing to enrol on a first or second cycle degree programme taught in Italian or English at the University of Siena must submit their documents for the assessment of entry qualifications using the online platform.

<https://apply.unisi.it>

DEADLINES FOR PRE-ENROLMENT AND TEST DATES

• First, second and single cycle degree courses

Deadline: end of June/early July. By this date non-EU nationality students resident outside the EU should go to an Italian Embassy or Consulate in their country of origin to prepare the necessary documents.

• Second cycle degree courses

Candidates wishing to enrol on a Laurea Magistrale degree course (Second Cycle) must have a three year first cycle degree at the time of pre-enrolment at the University of Siena. Candidates are strongly advised to present the relevant documents for this evaluation before proceeding with pre-enrolment. International students wishing to enrol on a second cycle degree programme, taught in Italian or English at the University of Siena, must submit their application by using the online form: enrolment.diism.unisi.it. An Enrolment Committee will assess your competencies and skills against the requirements of the chosen programme. The Enrolment Committee will evaluate the applications periodically: you will be notified about acceptance within two months from your application.



ITALIAN LANGUAGE TEST

Early September: date for Italian language test (the test is compulsory for non-European Union citizens residents abroad, for all University courses. Students do not have to take this test if they have a certified knowledge of the Italian language or they are applying for a course taught in English).

FEES & SUPPORT

For all international students who are not EU citizens or who cannot provide Italian ISEE (the Equivalent Economic Situation Indicator) the fee amount will be determined according to their home country, the course chosen and University merit.

Fees payable by the students coming from countries listed in specific tables will be calculated on the basis of the students' curriculum and their academic progression (group); the maximum applicable amount shall be multiplied by the adjustment coefficient of the relevant country. The amount range and countries list are available at:

<https://en.unisi.it/international/prospective-and-enrolled-international-students>

In general the lowest amount for the annual fee will be 490.00 Euros plus 140.00 Euros for regional tax and 16.00 Euros for a revenue stamp.

Students who enroll in the Dentistry e Dental Prosthodontics Master's degree course (class LM 46) must pay an additional fee of € 1,650.00.

The annual amount of tuition fees will be calculated on the basis of field of studies (3 groups), individual or family income and academic performance.

Tuition fees may be up to 2,800.00 Euros per year (taxes excluded), according to the

above mentioned calculation topics. Fees are payable in four instalments:

the first one upon completion of the enrolment procedure (end of October), the second one by late December, the third one in late February and the fourth by the end of April. These rules and indications may change depending on specific individual condition.

In order to obtain a reduction of the fees, students must produce an official statement of the family unit economic status regarding the previous year issued by the home country tax office, legally translated into Italian and validated by the Italian Embassy/Consulate. The University of Siena issues provisions for the calculation of student fees on an annual basis.

The fee can also vary in the presence of any applicable benefits or exemptions.

More info at: <https://en.unisi.it/international/prospective-and-enrolled-international-students>

• Scholarships

Students enrolling at the University of Siena can apply for a DSU (Regional Body for the Right of University Studies) scholarship. The application is open until September/October of each year. Scholarship assignees will receive a sum of money (covering University fees) and have free access to University canteens and free accommodation at halls of residence, if admitted. Should such accommodation not be available, assignees will be given a rent contribution, if requested. The notice and the online application form at this link: www.dsu.toscana.it/servizi/benefici-agli-studenti



ACCOMMODATION & STUDENTS' FACILITIES

• Libraries & resources

The University Library System is devoted to the conservation, development, management and use of bibliographic resources (printed and electronic and the establishment

of adequate services for access to bibliographic information and documents. It is part of a wider system connecting all the City Public Libraries.

36 computer labs (570 places)
WiFi access in every University or DSU building.

• CLA - University Language Centre

The University Language Centre (Centro Linguistico di Ateneo - CLA) is responsible for the teaching of foreign languages to University students and staff, and prepares students for international language certificates (PET, BEC, FCE, CAE, CPE, TOEFL, DELF, DALF, etc.)

The University of Siena also has a specific cooperation agreement with the University for Foreigners of Siena (Università per Stranieri di Siena) concerning intensive Italian language courses (held in two sessions at the beginning of each semester) for International Mobility Programme students with an insufficient knowledge of Italian. www.cla.unisi.it/en

• Accommodation

The University of Siena has no student residences as such, but can use places in the dormitories owned by the DSU (Regional Office for the Right to Higher Education.) There are 11 University Residences in Siena, some in the Center of the Town, some close to the City walls and well connected to the city and the Departments si-



tes, all provided with free wi-fi web connection. Each Academic Year the DSU publishes an Announcement for the granting of scholarships and places in accommodation, which is available at the following webpage:

www.dsu.toscana.it/servizi/benefici-a-gli-studenti/borsa-di-studio-e-posto-alloggio

More info on DSU scholarship and services at: www.dsu.toscana.it

• Restaurants

The University canteens are run by the DSU-Toscana which offers to the students low cost full meals (from 2.80 to 4.00 Euros) with varied menus.

In order to access the University canteens students need a smart card, which is issued upon enrolment. For exchange students this card is issued by the International Relations Office upon registration at the University.

en.unisi.it/international/general-information-students/university-canteens

• CUS - Sports centre

In collaboration with the Regional Authority for Higher Education Grants (Azienda Regionale per il Diritto allo Studio Universitario - ARDSU) and Siena University Sports Centre (CUS), the University promotes sports for students by offering courses for free or at reduced rates in: basketball, football, volleyball, rugby, judo, weight training, fencing and tennis. Competitive sporting events recognized by the respective national federations are also organized. To participate in these events, students must carry a DSU-Toscana/CUS membership card. Erasmus and other international exchange students can request their card from the International Relations Office.



en.unisi.it/international/general-information-students/sport

• Buddy System

The Buddy program is promoted by University of Siena in cooperation with ESN Siena GES association. Its purpose is not only to assist exchange students with practical matters regarding their settlement in the new country. It mainly aims at facilitating integration in the Italian academic life and the Italian student community.

The Buddy program is, above all, a great opportunity to make new friends from other parts of the world and to create long lasting intercultural friendships! In the framework of the program, the Buddy gets the opportunity to practice a foreign language, get acquainted with different cultures, develop his/her social skills; the buddy also gets the chance to participate to sponsored social events to meet his/her fellow Buddies and to participate to the exclusive ESN Siena GES events.

<http://www.gruppoerasmus-siena.it/buddy-system-unisi-esn-siena-ges>





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