



ATTACHMENT N. 3

Second Cycle Degree Programs at Florence University	About this degree	Full list of offered courses	Minimum Entry Requirements: First Cycle or Bachelor Degree in an appropriate subject, listed below	Additional Entry Requirements (when applicable): Minimum number of compulsory exams in preparatory disciplinary areas, required for enrollment in each Second Cycle Degree Program
<b>School of Agriculture</b> <i>Natural Resources Management for Tropical Rural Development</i>	<p>The MSc in Natural Resources Management for Tropical Rural Development is a two years cutting-edge graduate program, which promotes research and professional training in the sectors of modern and sustainable agriculture, animal science and natural resource management.</p> <p>The objective of the MSc is specialist education and training in food production, environmental conservation and rural development with the purpose of improving food and water security, conservation of biological resources, capacity building and empowerment of local communities.</p>	<p><a href="https://www.unifi.it/p-cor2-2020-101221-B216-E28-1-0.html">https://www.unifi.it/p-cor2-2020-101221-B216-E28-1-0.html</a> (curriculum: Agricultural production)</p> <p><a href="https://www.unifi.it/p-cor2-2020-101221-B216-E29-1-0.html">https://www.unifi.it/p-cor2-2020-101221-B216-E29-1-0.html</a> (curriculum: Land and water)</p>	<p>Agriculture, Forestry, Biological Science, Food Science.</p>	<p>Agronomy, Tree Crops, Herbaceous crops, Plant pathology and entomology, Animal husbandry, Agricultural hydraulics.</p>
<b>School of Architecture</b> <i>Architecture Curriculum: Architectural Design</i>	<p>The aim of the two-years Master's course in Architecture is the advanced training of Architects. Students will learn the architectural Design process, from conception to production and the construction site, for architectural and urban transformation in complex urban systems, both historical and modern, and related contemporary construction techniques and materials in relation to environmental and economic sustainability; they will learn also design methods and tools for architectural heritage</p>	<p><a href="https://www.architetture.unifi.it/p-cor2-2020-101222-B076-D59-1-0.html">https://www.architetture.unifi.it/p-cor2-2020-101222-B076-D59-1-0.html</a></p>	<p>Architecture, or any other equivalent qualification</p>	<p>Candidates have to send a pdf file with their architecture design contests, their dissertation, their architecture designs (texts and graphic material included)</p>



	conservation and for traditional construction techniques and materials, associated with their contexts.			
<p><b>School of Economics and Management</b> <i>Design of Sustainable Tourism Systems</i></p>	<p>The Master Program aims to provide a thorough understanding, at the university master level, of the contemporary techniques of organization and management of tourism activities.</p> <p>The DSTS program deals with the sustainable management of natural, cultural and historical resources. The remarkable growth of tourism requires considerable planning activities by both the public and private sectors in order to maximise economic returns while acing the potential negative impacts on the environment.</p> <p>The graduates will acquire basic competence in the fields of human and social sciences, and a good command of information technology and of statistical techniques. These skills are indispensable for a real-world interpretation of tourism trends and of taste changes of the tourist population. The Master Program also provides legislative, historical and geographical knowledge useful for valorizing the resources and the cultural heritage of a territory.</p>	<p><a href="https://www.dsts.unifi.it/vp-131-study-plan.html">https://www.dsts.unifi.it/vp-131-study-plan.html</a></p> <p><a href="https://www.dsts.unifi.it/upload/sub/2-course-offering/piano_studio_2020.pdf">https://www.dsts.unifi.it/upload/sub/2-course-offering/piano_studio_2020.pdf</a></p>	<p>Management and Economics; Modern languages and cultures; Statistics and Demography; Geography and environmental sciences; Sciences and technologies for the environment and nature; Political sciences and Sociology; History and cultural heritage.</p>	<p>At least one exam in the fields of economics; management; or demography and statistics; Basic knowledge of data processing.</p>
<p><b>School of Economics and Management</b> <i>Economics and Development</i></p>	<p>The two-year MSc in <b>Economics and Development</b> offers two curricula which prepare students for different careers.</p> <p>The curriculum in <b>Development Economics</b> can be tailored to a <i>quantitative analysis for developing economies</i>, which equips students with advanced quantitative methods and skills for studying economic development phenomena or it can be oriented towards <i>Development Studies</i>, with a less technical and more interdisciplinary approach.</p> <p>The curriculum in <b>Economics</b> equips students with the advanced quantitative methods and skills necessary to conduct both theoretical and applied research in economics and to evaluate and formulate policies.</p>	<p><a href="https://www.development.unifi.it/vp-410-curriculum-in-development-economics-2020-2021.html">https://www.development.unifi.it/vp-410-curriculum-in-development-economics-2020-2021.html</a></p>	<p>Economics, Business Economics, Statistics, Mathematics, Political Science and International Relations</p>	<p>Applicants must prove a solid background in Economics, Mathematics and Statistics. Applicants should have achieved at least a High Second Class degree or an equivalent international qualification in their country.</p>



<p><b>School of Economics and Management</b> <i>Finance and Risk Management</i></p>	<p>The two-year MSc in Finance and Risk Management offers its prospective students an advanced education in finance, quantitative risk management and insurance, banking and financial accounting. The course is a combination of economic theory for finance with quantitative methods (probability theory, statistics, numerical analysis and computational methods) to quantify and manage risk arising from financial, economic and insurance applications. The MSc mix theory and practice, academic lectures and interaction with finance practitioners and empirical sessions.</p>	<p><a href="https://www.frm.unifi.it/vp-186-study-plan-2020-2021.html">https://www.frm.unifi.it/vp-186-study-plan-2020-2021.html</a></p>	<p>Management, Economics, Statistics, Mathematics, Physics</p>	<p>The candidates for the MSc in Finance and Risk Management must prove a strong knowledge of mathematics, statistics and social sciences as well as some familiarity with information technology and data analysis software. Applicants for this program should have achieved a First Class or High Second Class (Upper Division) degree or an equivalent international qualification in their country.</p>
<p><b>School of Engineering</b> <i>Geoengineering</i></p>	<p>The master degree in Geoengineering is devoted to train specialist of monitoring, design and management for geohydrological risk reduction with particular reference to floods, landslides, subsidence, sinkhole and in general to slope and basin scale dynamics. The master course aims to train specialists able to: know and develop methods and techniques for territorial survey and related data analysis at different scale of work; apply new technologies for the prevention and protection of man and environment from geo-hydrological hazards; develop an integrated approach for the assessment of geo-hydrological hazards; cope with problems raising from monitoring and management of the territory and the environment; achieve expertise for geo-hydrological risk assessment and management.</p>	<p><a href="https://www.ing-gem.unifi.it/vp-148-educational-plan.html">https://www.ing-gem.unifi.it/vp-148-educational-plan.html</a></p>	<p>To be admitted to the Master Course in Geoengineering, it is required a first cycle or a single cycle degree awarded by an Italian or a foreign University, that allows the continuation of studies to the next level.</p>	<p>Applying students have to retain the general educational requirements and possess an adequate personal education background, certified by a specific authorization (nulla osta) issued by the Education Committee of the School of Engineering.</p>



<p><b>School of Humanities and Education</b> <i>Geography, Spatial Management, Heritage for International Cooperation</i></p>	<p>The course trains highly qualified experts in territorial analysis and spatial development and management able to operate in the Italian and international labor market, and in particular in the field of development cooperation.</p> <p>The specific objective of the master program is to provide advanced theoretical and methodological skills to intervene on the physical, economic, social and cultural processes which affect the organization of the territory at different scales. Particular attention is devoted to managing tangible and intangible cultural heritage, integrated planning and projects for territorial development, planning for sustainable tourism development, GIS, Remote Sensing and Big Data.</p> <p>The set of training activities is framed within an international scientific and cultural vision with references to extra-European areas. The course offers opportunities to interact with overseas cooperation projects, as well as collaborative experiences with agencies, local authorities and associations in Italy.</p>	<p><a href="https://www.spatialmanagement.unifi.it/upload/sub/StudyPlan_English_2020-2021.docx.pdf">https://www.spatialmanagement.unifi.it/upload/sub/StudyPlan_English_2020-2021.docx.pdf</a></p>	<p>Geography; Urban and regional planning; Urban design and landscape; Environmental sciences; Social sciences for cooperation and</p>	<p>Candidates must have acquired a First Cycle Degree in Geography. Alternatively, they must prove solid knowledge in at least one of the following domains: urban and regional studies; environmental studies; GIS, surveying and mapping; social sciences; history.</p>
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<p><b>School of Mathematical, Physical and Natural Sciences</b> <i>Advanced Molecular Sciences</i></p>	<p>The aim of this Master Degree is the training of Graduates in Chemistry with high scientific and professional qualifications. The Master will offer the opportunity to acquire top level knowledge and experience in the design, synthesis and characterization of complex systems and their applications in fundamental research and in industrial activities. The training project is aimed at overcoming the traditional dichotomy between the teachings of chemistry of synthetic materials and chemistry of biological molecules and to offer interdisciplinary skills.</p> <p>At the end of the Master course the Graduates will possess the skills that derive from the two areas for the design and study of the complex systems including materials, bio-pharmaceuticals, probes and theragnostic of the next generation.</p> <p>The molecular vision will bring about the development of new products and the precise control of their properties, providing effective and sustainable responses to the needs of the society in terms of new therapeutic approaches, new materials, new processes and new analytical methods.</p>	<p><a href="https://www.master-ams.unifi.it/vp-143-list-of-courses.html">https://www.master-ams.unifi.it/vp-143-list-of-courses.html</a></p>	<p>Chemistry or related degrees (industrial chemistry, biochemistry, chemistry of materials...)</p>	<p>The bachelor shall include at least 7 exams in chemical subjects with practical activity in organic, inorganic, chemical physical and analytical chemistry As well, 3 exams in mathematics and/or physics shall be included</p>
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<p><b>School of Mathematical, Physical and Natural Sciences</b> <b>Computer Science Curriculum: Resilient and Secure Cyber Physical Systems</b></p>	<p>The M.Sc. Degree in Computer Science is structured in two different curricula, one of which is taught in English The Curriculum <i>Resilient and Secure Cyber-Physical Systems</i> merges computer science and engineering notions for the definition, design, assessment and certification of all those kinds of systems that comprise a cyber and a physical part, as for the example the Internet of Things (IoT) or Critical Infrastructures. Realizing cyber-physical systems is challenging and requires multidisciplinary knowledge ranging from distributed systems to sensor networks, from software engineering to artificial intelligence. In addition, to enhance the resilience and security of cyber-physical systems, verification and certification methodologies and tools are required so to ensure system survival in case of random anomalies, deliberate attacks, and in general unexpected critical events.</p>	<p><a href="https://www.informaticamagistrale.unifi.it/vp-235-ay-2021-2022.html">https://www.informaticamagistrale.unifi.it/vp-235-ay-2021-2022.html</a></p>	<p>First Cycle or Bachelor Degree in an appropriate subject, listed below Computer science, computer engineering, Mathematics, Electronic or communication engineering, physics.</p> <p>Bachelor's Degree (or equivalent qualification) in an appropriate subject, e.g. Computer science, Computer engineering, Mathematics, Electronic or communication engineering, Physics, and background knowledge on algorithms, computer architectures, operating systems, programming languages and methodologies, databases, networks, as well as basics on mathematics, numerical analysis, probability, and statistics.</p>	<p>Minimum number of compulsory exams in preparatory disciplinary areas, required for enrollment in each Second Cycle Degree Program The applicant must have passed at least 4 exams in computer science/engineering subjects and at least 4 exams in mathematics, physics or statistics disciplines.</p> <p>The applicant must:</p> <ul style="list-style-type: none"> <li>- have achieved a final score in the Bachelor's Degree (or equivalent qualification) equal to or greater than 75% of the maximum score;</li> <li>- have passed at least 4 exams in computer science/engineering subjects and at least 4 exams in mathematics, physics, or statistics disciplines;</li> <li>- have a B2 (or higher) European level English proficiency certification, or reside in a country where English is the official language, or have previously completed a first-level degree course (or equivalent) held entirely in English.</li> </ul>
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<p><b>School of Political Science</b> <i>International Relations and European Studies</i></p>	<p>The two-year Master's Programme intended to provide a background in the legal, economic, historical and political science fields necessary in the international or European context. In the <b>International Relations track</b>, students explore various issues, including international law related to the protection of human rights, the relationship between religion and international relations, economic and taxation issues, education and health, and the role of supranational institutions. The International Relations track prepares students interested in pursuing a diplomatic career or in becoming officers or directors in international organizations, NGOs, international cooperation agencies, consulting agencies, journalism, research centers. <b>The European Studies track</b> aims to train professionals with in-depth knowledge of the process of European integration and its current organization, with a particular focus on the structure and dynamics of EU functions, integration, the content of EU policy, and the EU's impact in national and international politics.</p>	<p><a href="https://www.unifi.it/p-cor2-2020-101229-B087-GEN-1-0.html">https://www.unifi.it/p-cor2-2020-101229-B087-GEN-1-0.html</a></p>	<p>Political Science, Sociology, International Studies, International Law</p>	<p>Prospective students must have passed at least 3 exams in the field of Law and/or Economics: International Law; Micro and Macro Economics. A sound knowledge in the field of International History, Political Science and Sociology is also considered to be important.</p>
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