Community is the keyword of the Tor Vergata University of Rome. The spirit of cooperation existing between students, professors and staff creates a positive debate and enables us to achieve significant goals, including a high quality in our education programmes, research projects, and presence and contamination in our territory and in our society, while keeping a specific focus on sustainability. The energy, ideas and curiosity of our students, youth researchers and staff, in combination with the experience of the senior members of our community, generate a priceless added value in terms of knowledge and skills for future competitive experts.

Interdisciplinarity, internationalisation and innovation, commonly called cross-fertilisation, complete the framework of a vision for a better world based on knowledge, aiming at creating inclusive confidence and supporting the ideas and dreams of the new generations.

Choosing our University today means giving value to your future.

Orazio Schillaci
Rector of the Tor Vergata University of Rome
Discover Tor Vergata

Who we are

Studying in Rome will add an amazing cultural perspective to the quality of your studies. You will live in a city where you can perceive the passing of time by merely strolling across its central streets: ancient, Middle-Age, Renaissance, Baroque, Neoclassicism and Modern Rome are ready to be discovered.

It is a centre for inter-religious debate and a place where the founding Treaty for the European Union was signed. In Rome you will be able to enjoy all this, surrounded by a gentle climate, arts and music, fashion and food.

The Campus of Tor Vergata University is about 40 minutes tube ride from the historical city centre of the “Eternal City” Rome and 20 minutes far from the peaceful Castelli Romani area, notorious for its vineyards and hillside landscape.

Tor Vergata’s six Schools (Economics, Engineering, Humanities and Philosophy, Law, Medicine and Surgery, and Mathematical, Physical and Natural Sciences) are located in a vast 600-hectare campus. Each School is provided with its own library, teaching and research facilities, reading rooms, laboratories, canteens and green areas where students can experience a real campus life.

The School of Medicine and Surgery is part of the important University Hospital compound, the Policlinico Tor Vergata (PTV), where students can benefit from health care and physical emergency assistance.

Rome embraces Tor Vergata: let Tor Vergata embrace you!
12 Reasons to Choose Tor Vergata

1. We are located in Rome, in a calm and green area
2. We are a Public University with low tuition fees and excellent education
3. We provide a high students-professors interaction, allowing free speech, enhancing your skills and supervising your thesis work
4. You can join our exchange programs, Erasmus+ and Dual Degrees with prestigious international partner Universities
5. You will learn Italian and other languages for free alongside your studies
6. We offer support with Stay Permit procedures and Welcome Weeks
7. Our Placement Office will connect you with the best job offers
8. We offer the safety and well-organised Campus X for your accommodation
9. Study and life are balanced during your studies
10. We offer scholarships supporting your studies you can apply for once admitted
11. We protect your privacy and your data
12. We always welcome diversity

Research

- International Collaboration: 47.7% vs 45.2% vs 39.2%
- Top Percentiles: 32.6% vs 30.0% vs 30.2%
- Top Citations Percentiles: 17.1% vs 15.5% vs 12.8%

PhD Programmes

- 122 Project Publications
- 3.438 Scientific publications
- 77 International Research Agreements
- 35 Licenses
- 17 International
- 21 PhD courses
- 23 International agreements
- 941 PhD students coming from 26 countries
- 170 Scholarships
- 45 Marie Curie

Source: Scival-Elsevier
The Italian university system is organised in three cycles, according to the Bologna Process that ensures standards comparability in the quality of higher education qualifications among European Institutions.

**A brief overview:**
- Bachelor of Science or of Art (Bachelor’s degree) B.A./B.Sc. - duration 3 years - 180 ECTS
- Master of Arts or Master of Science M.A./M.Sc. - duration 2 years - 120 ECTS
- One-cycle degree - Undergraduate M.A./M.Sc. - duration 5/6 years - 300/360 ECTS
- PhD - Doctoral degree - duration 3 years mainly

**The system also offers other post-graduate courses** (typically 1 year, 60 ECTS):
- First Level Specialising Master (access with B.A./B.Sc.)
- Second Level Specialising Master (access with M.A./M.Sc. or Undergraduate M.A./M.Sc.)
- Post-Graduate Training Course (so-called “Corsi di Perfezionamento”, for access, please inquire the course staff)
- Specialisation School (access with M.A./M.Sc. or Undergraduate M.A./M.Sc.)
Study in Italian

NON EU CITIZENS
(NOT RESIDENT IN ITALY)
Once admitted to the Course chosen at Tor Vergata, you need to submit a pre-enrollment request from March to July to the Italian Embassy/Consulate in your country, following the procedures set by the Italian Ministry of Education (MIUR). Please see this link for further information:
https://www.studiare-in-italia.it/studentistranieri/

For Medicina e Chirurgia, Odontoiatria and Ingegneria Edile Architettura you must register in June/July on the portal HYPERLINK "http://www.universitaly.it/" www.universitaly.it and take a mandatory national entry test.
For all the other courses you can check the admission procedures on the calls available at the link below link:
https://web.uniroma2.it/module/name/Content/newlang/italiano/navpath/DID/section_parent/4430

Please note: if you want to enroll in a programme taught in Italian language you must own a B2 Level Certificate of Italian language, issued by the Council of Europe by the CLIQ quality system or sit for the mandatory test of Italian language provided by Tor Vergata (generally taken during the first week of September). Passing the Italian language test is compulsory to access any further step of the admission process.
EU citizens and holders of a European residence permit do not need to sit for the Italian language test.
14

Study in English

SCHOOL OF ECONOMICS

B.Sc. in Business Administration and Economics
B.A. in Global Governance
M.Sc. in Business Administration
M.Sc. in Economics
M.Sc. in European Economy and Business Law
M.Sc. in Finance and Banking
PhD Contracts, Services and Markets Theory
PhD Economics and Finance
PhD Management

SCHOOL OF MEDICINE AND SURGERY

Single-cycle degree in Medicine and Surgery
M.Sc. in Physical Activity and Health Promotion
PhD Biochemistry and Molecular Biology
PhD Immunology, Molecular Medicine and Applied Biotechnology
PhD Medical-Surgical Applied Sciences
PhD Medical-Surgical Biotechnologies and Translational Medicine
PhD Microbiology, Immunology, Infectious Diseases and Transplants
PhD Neuroscience
PhD Nursing Sciences and Public Health
PhD Systems and Experimental Medicine
PhD Tissue Engineering and Remodeling Biotechnologies for Body Function

SCHOOL OF MATHEMATICAL, PHYSICAL AND NATURAL SCIENCES

Single-cycle in Pharmacy
M.Sc in Biotechnology
M.Sc in Physics - Curriculum in Astrophysics and Space Science
M.Sc in Physics - Curriculum in Physics of Fundamental Interactions and Experimental Techniques
M.Sc in Physics - Curriculum in Physics of Complex Systems and Big Data
PhD Astronomy, Astrophysics and Space Science
PhD Chemical Sciences
PhD Evolutionary Biology and Ecology
PhD Materials for Health, Environment and Energy
PhD Mathematics
PhD Molecular and Cellular Biology
PhD Physics

SCHOOL OF HUMANITIES AND PHILOSOPHY

M.A. in European History (curriculum of M.A. in Scienze e storia del documento)
M.A. in Art History in Rome from Late Antiquity to the Present
M.A. in Tourism Strategy, Cultural Heritage and Made in Italy
PhD Classical Antiquity and Its Reception: Archaeology, Philology, History
PhD Comparative Studies: Languages, Literature and Arts
PhD Cultural Heritage, Education and Territory
PhD History and Philosophical-Social Sciences
PhD Philosophy

SCHOOL OF LAW

PhD Public Law
PhD Law and Judicial Remedies: Private Law, Comparative Law, Roman Legal System

Caption
Dual Degree
QS Ranking by Subject of Interest 2019
% satisfaction score of students
Source: AlmaLaurea, Italian Interuniversity Consortium

Top 5 Countries of origin international students

1 2 3 4 5

Study in English
B.Sc. in Business Administration and Economics

This undergraduate programme is aimed at equipping students with conceptual and methodological tools necessary to cope with the complexity of our worldwide economy. The course presents a multidisciplinary approach, tackling concepts and models from Management, Economics, Finance and Quantitative Methods.

The structure of the programme is continuously updated, focusing on the development of concrete links between theory and real-world applications. The international context supports our students to strengthen their own integration and co-competition abilities to successfully approach the professional and the personal life.

The BA&E programme provides the competencies and the conceptual and methodological tools to meet the challenges of the economic system and the internal dynamics of organisations and institutions that elaborate their strategies in it.

After two years of foundational courses, students will be able to select their area of expertise choosing between Business Administration and Economics, to be pursued during the third year.

Web References and Contacts
Coordinator:
Professor Luca Gnan
Contacts:
bae@economia.uniroma2.it
The Bachelor of Arts in Global Governance offers interdisciplinary teaching, which aims to prepare professionals to face global challenges that require specific legal and economic competencies, as well as a wide range of technical knowledge and skills to manage cultural mediations. National and international political institutions, international organisations, non-governmental organisations, enterprises and global economic subjects ever increasingly seek profiles with interdisciplinary knowledge: our course satisfies these prerequisites by involving professors from various disciplinary sectors (Arts and Humanities, Economics, Engineering, Law, Medicine and Sciences).

The Course selects on average 100 students, half of them Italian. Students must have already obtained a high-school diploma. Students are selected on the basis of their CV, their personal motivation and their openness to international experiences.
The Master of Science in Business Administration is an internationally open, practice-oriented and job-market driven programme. It provides a solid management background and allows students to choose from six different areas of specialisation divided into fields of expertise, strongly qualifying students for the career they are targeting:

- Management Consulting
- Marketing and Sales
- Human Resources
- Supply Chain
- Control and Auditing
- Social Innovation and Sustainability

Several courses are jointly developed together with Companies and Associations, hosting entrepreneurs and managers from leading Management Consulting Firms and International Companies.

The strong focus on the international market provides the necessary tools to understand and face the global dynamic competitive markets. In the context of a dynamic learning environment, our programme helps students in building a strong and internationally-open career path.

### Web References and Contacts
Coordinator: Prof. Corrado Cerruti
Contacts: study@mscba.uniroma2.it

---

### Management Consulting

#### Academic Programme

#### Year 1
- General Management: 12 cfu
- Managerial Accounting: 12 cfu
- Organisational Dynamics and Behaviour: 6 cfu
- International Commercial Law: 6 cfu
- Business Statistics: 6 cfu
- Economic Choice Modelling: 6 cfu
- Regulation and Competition Policies: 6 cfu
- Digital Management Consulting: 6 cfu
- - Optional Courses: 6 cfu

#### Year 2
- Corporate Finance: 6 cfu
- Business Analytics: 6 cfu
- It Systems, Data And Applications: 6 cfu
- - Optional Courses: 6 cfu
- Extra Activities: 6 cfu
- Final Exam: 24 cfu

**Total**: 120 cfu

### Control and Auditing

#### Academic Programme

#### Year 1
- General Management: 6 cfu
- General Management I: 6 cfu
- Enterprise Evolution: 6 cfu
- General Management II: 6 cfu
- Digital Transformation Management: 6 cfu
- Managerial Accounting: 6 cfu
- Cost Accounting: 6 cfu
- Profit Planning: 6 cfu
- Organisational Dynamics and Behaviour: 6 cfu
- International Commercial Law: 6 cfu
- Business Statistics: 6 cfu
- Economic Choice Modelling: 6 cfu
- Regulation and Competition Policies: 6 cfu
- Financial Reporting: 6 cfu
- - Optional Courses: 6 cfu

#### Year 2
- Corporate Finance: 6 cfu
- Business Auditing: 6 cfu
- Governance and Ethics: 6 cfu
- - Optional Courses: 6 cfu
- Extra Activities: 6 cfu
- Final Exam: 24 cfu

**Total**: 120 cfu

### Marketing and Sales Management

#### Academic Programme

#### Year 1
- General Management: 6 cfu
- General Management I: 6 cfu
- Enterprise Evolution: 6 cfu
- General Management II: 6 cfu
- Digital Transformation Management: 6 cfu
- Managerial Accounting: 6 cfu
- Cost Accounting: 6 cfu
- Profit Planning: 6 cfu
- Organisational Dynamics and Behaviour: 6 cfu
- International Commercial Law: 6 cfu
- Business Statistics: 6 cfu
- Economic Choice Modelling: 6 cfu
- Regulation and Competition Policies: 6 cfu
- Advanced Marketing: 6 cfu
- - Optional Courses: 6 cfu

#### Year 2
- Corporate Finance: 6 cfu
- Service Management and Marketing: 6 cfu
- Sales Management: 6 cfu
- - Optional Courses: 6 cfu
- Extra Activities: 6 cfu
- Final Exam: 24 cfu

**Total**: 120 cfu
Human Resources Management

Year 1
- General Management
  - General Management I
  - Enterprise Evolution 6
  - General Management II
  - Digital Transformation Management 6
  - Managerial Accounting
    - Cost Accounting 6
    - Profit Planning 6
  - Organisational Dynamics and Behaviour 6
  - International Commercial Law 6
  - Business Statistics 6
  - Economic Choice Modelling 6
  - Regulation and Competition Policies 6
  - People Management 6
  - Optional Courses 6

Year 2
- Corporate Finance 6
- Organisational Communication and Presentations Skills 6
- Organisational Psychology 6
  - Optional Courses 6
- Extra Activities 6
- Final Exam 24
Total cfu 120

Social Innovation and Sustainability

Year 1
- General Management
  - General Management I
  - Enterprise Evolution 6
  - General Management II
  - Digital Transformation Management 6
  - Managerial Accounting
    - Cost Accounting 6
    - Profit Planning 6
  - Organisational Dynamics and Behaviour 6
  - International Commercial Law 6
  - Business Statistics 6
  - Economic Choice Modelling 6
  - Regulation and Competition Policies 6
  - Business Government Relationship 6
  - Optional Courses 6

Year 2
- Corporate Finance 6
- Sustainability Management 6
- Social Entrepreneurship and Innovation 6
  - Optional Courses 6
- Extra Activities 6
- Final Exam 24
Total cfu 120

Supply Chain Management

Year 1
- General Management
  - General Management I
  - Enterprise Evolution 6
  - General Management II
  - Digital Transformation Management 6
  - Managerial Accounting
    - Cost Accounting 6
    - Profit Planning 6
  - Organisational Dynamics and Behaviour 6
  - International Commercial Law 6
  - Business Statistics 6
  - Economic Choice Modelling 6
  - Regulation and Competition Policies 6
  - Procurement and Supply Chain 6
    - Optional Courses 6

Year 2
- Corporate Finance 6
- Economics of Procurement 6
- Sustainable Supply Chain Management 6
  - Optional Courses 6
- Extra Activities 6
- Final Exam 24
Total cfu 120
M.Sc. in Economics

The Master of Science (LM-56) in Economics is a program of advanced quantitative methods for economics, designed for highly motivated students, who wish to acquire the tools and knowledge to undertake advanced economic research. The M.Sc. in Economics prepares young, successful economists to pursue a career in economic research or at national and international institutions, universities and consulting firms. In addition to the advanced-level academic curriculum, useful and practical professional training activities are offered, such as courses on Python and LaTeX, in addition to MatLab Associate Level and Refinitiv certifications. Seminars are organized for job and PhD orientation as well as Alumni Meetings that enable students to develop their professional network. First-year students may apply to the Dual Degree Program at the University of Gothenburg or at the University of Konstanz.

Web References and Contacts
Coordinator:
Prof. Alberto Iozzi
Contacts:
msc_economics@economia.uniroma2.it

Academic Programme

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Linear Algebra and Probability</td>
</tr>
<tr>
<td></td>
<td>Calculus and Optimization</td>
</tr>
<tr>
<td></td>
<td>Statistics</td>
</tr>
<tr>
<td></td>
<td>Microeconomics I</td>
</tr>
<tr>
<td></td>
<td>Econometrics</td>
</tr>
<tr>
<td></td>
<td>Statistical Computing</td>
</tr>
<tr>
<td></td>
<td>(Matlab, Stata, Python)</td>
</tr>
<tr>
<td></td>
<td>Microeconomics II</td>
</tr>
<tr>
<td></td>
<td>Macroeconomics I</td>
</tr>
<tr>
<td></td>
<td>Macroeconomics II</td>
</tr>
<tr>
<td></td>
<td>Time Series</td>
</tr>
<tr>
<td></td>
<td>Optional Courses</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Law And Economics</td>
</tr>
<tr>
<td></td>
<td>Public Sector Economics and Management</td>
</tr>
<tr>
<td></td>
<td>Labour and Personnel Economics</td>
</tr>
<tr>
<td></td>
<td>Optional Courses</td>
</tr>
<tr>
<td></td>
<td>Optional Courses</td>
</tr>
<tr>
<td></td>
<td>Thesis</td>
</tr>
<tr>
<td>Total</td>
<td>cfu 120</td>
</tr>
</tbody>
</table>

3 100%

1
M.Sc. in European Economy and Business Law

The Master of Science in European Economy and Business Law (LM-90, European Studies) is a two-year program combining economics with political science, management, law and statistics. The programme encourages students to develop their skills and knowledge in a stimulating environment that offers multidisciplinary approach, academic rigour and international exchange. The programme also provides a number of extra activities to develop soft skills, and internship opportunities. The degree prepares graduates to work in international and non-governmental organizations, private companies and public administrations. Our student profile is a skilled candidate, with knowledge of English, an inclination towards international mobility and a strong interest in fieldwork learning activities. Eligible students may also take advantage of a dual-title agreement with SOAS University of London for a MSc in Economics.

Web References and Contacts
Coordinator: Prof. Elisabetta Iossa
Contacts: admissions@eebl.uniroma2.it

Academic Programme

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game Theory and Industrial Organization</td>
<td>Economics of European Integration</td>
</tr>
<tr>
<td>Statistical Learning</td>
<td>Economic Integration and Structural Reforms</td>
</tr>
<tr>
<td>European Institutions, Law and Markets</td>
<td>Advanced Management</td>
</tr>
<tr>
<td>International Economics</td>
<td>European Administrative Law</td>
</tr>
<tr>
<td>Management of Public Administration and NGOs</td>
<td>Political Economy and Public Economics</td>
</tr>
<tr>
<td>Economic History</td>
<td>Optional Courses</td>
</tr>
<tr>
<td></td>
<td>total cfu 12</td>
</tr>
<tr>
<td></td>
<td>Extra Activity 6</td>
</tr>
<tr>
<td></td>
<td>Final Thesis 24</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Web References and Contacts
Coordinator: Prof. Elisabetta Iossa
Contacts: admissions@eebl.uniroma2.it

90.9%
M.Sc. in Finance and Banking

The Master of Science (LM-16) in Finance and Banking is a program of quantitative methods for finance, designed for talented students who wish to acquire mathematical and statistical techniques applied to financial markets.

To integrate theory and practice students make an advanced use of MatLab, compare investment funds with Morningstar's extensive database and we analyse news and market data with Refinitiv Datastream and Eikon.

The Program’s industrial partners, such as ARPM, MathWorks, Morningstar, Refinitiv and Reply, are closely involved with the academic curriculum through the organization of seminars, guest lectures and training activities. These partnerships give students a competitive edge and provide them with specific skills, dynamic interactions and advanced professional experiences.

Additional opportunities include Dual Degree agreements with prestigious universities as well as the annual QFin@Work workshop on quantitative methods in finance, insurance and banking.

Web References and Contacts
Coordinator:
Prof. Rocco Ciciretti
Contacts:
msc_finance@economia.uniroma2.it

Academic Programme

<table>
<thead>
<tr>
<th>Year 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>Linear Algebra And Probability</td>
<td>6</td>
</tr>
<tr>
<td>Calculus and Optimization</td>
<td>6</td>
</tr>
<tr>
<td>Statistics</td>
<td>6</td>
</tr>
<tr>
<td>Derivatives</td>
<td>6</td>
</tr>
<tr>
<td>Coding and Data Analysis For Finance</td>
<td>6</td>
</tr>
<tr>
<td>Time Series And Econometrics</td>
<td>6</td>
</tr>
<tr>
<td>Financial Market Models</td>
<td>6</td>
</tr>
<tr>
<td>Financial Econometrics</td>
<td>6</td>
</tr>
<tr>
<td>Corporate Finance</td>
<td>6</td>
</tr>
<tr>
<td>Optional Courses</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Theory and Ethics of Business</td>
<td>6</td>
</tr>
<tr>
<td>Empirical Banking</td>
<td>6</td>
</tr>
<tr>
<td>Asset Management</td>
<td>6</td>
</tr>
<tr>
<td>Asset Pricing</td>
<td>6</td>
</tr>
<tr>
<td>Optional Courses</td>
<td>12</td>
</tr>
<tr>
<td>Final Exam</td>
<td>24</td>
</tr>
</tbody>
</table>

Total: cfu 120
**PhD Contracts, Services and Markets Theory**

- **Duration:** 3 years
- **Admission conditions:** Qualifications evaluation and Written Exam and Oral Exam
- **Language/s required for the exam/s:** Italian and English
- **Medium of Instruction:** Italian and English

The PhD Programme offers students the chance to undertake high-profile research on the Theory of contracts, services and markets. The Programme is based on:

- an international approach to legal research, supported by agreements with prestigious Universities for joint supervision and the participation to the PhD Faculty panel of renowned researchers from Brasil, France, Germany, Spain, Switzerland, UK;
- a dynamic and comprehensive view on legal issues, both practical and theoretical;
- an interdisciplinary approach, through lectures, seminars and workshops on cross cutting issues and by encouraging cross sector research;
- a focus on current legal issues and hot topics.

Within the School of Economics, the Management and Law Department welcomes doctoral projects in Administrative Law, Civil Law, Commercial Law, Economic Law, EU Law, Labor Law, Public Law, Tax Law, favouring advanced research between Law and Economics.

The wide range of subjects and perspectives prepares our students for placement in private companies, public institutions and academia.

The PhD is awarded upon successful completion of a three full-time years course of studies and the defense of a PhD dissertation. Physical presence is required, except for research periods abroad.

**Coordinator:** Prof. Martina Conticelli - martina.conticelli@uniroma2.it

**Website:** https://economia.uniroma2.it/phd/contratti-servizi-mercati

---

**PhD Economics and Finance**

- **Duration:** 4 years
- **Admission conditions:** Qualifications evaluation and Written Exam and Oral Exam
- **Language/s required for the exam/s:** English
- **Medium of Instruction:** English

The PhD in Economics and Finance is a 4-year full-time programme providing advanced specialization in economics, finance and quantitative methods to students whose goal is to pursue a successful career in academia or in institutions that require first-rate research skills. It offers a distinguished faculty, promoting excellence in teaching and research, and a lively and international research environment. The Department has been recently financed by the Italian Ministry of Education, University and Research under the programme "Departments of Excellence". In the first year of the programme students take advanced core courses in microeconomics, macroeconomics, finance and econometrics. After choosing their field of specialization, the subsequent three years are entirely dedicated to research, including attendance and presentation at departmental seminars.

**Coordinator:** Prof. Tommaso Proietti - tommaso.proietti@uniroma2.it

**Website:** http://www.economia.uniroma2.it/phd/ef/

---

**PhD Management**

- **Duration:** 3 years
- **Admission conditions:** Qualifications evaluation and Written Exam and Oral Exam
- **Language/s required for the exam/s:** Italian and English
- **Medium of Instruction:** English (mainly)

The PhD in Management is a 3-year programme that prepares to conduct high-profile research in the field of management, at universities, firms and research centres. It includes three tracks:

- **Banking & Finance,**
- **Business Management & Accounting,** and
- **Public Management & Governance.**

Each track has its own coordinator and focuses on specific research activities, lectures and seminars according to the peculiar research interests covered. The tracks jointly organise a first year intertwined Research Methodology course aimed at developing an appropriate knowledge base for the doctoral students. The scientific progress of the students is monitored through the delivery of activity reports, lecture attendance, and evaluation of yearly assignments. Presenting at national and international conferences and publications are strongly encouraged. The PhD faculty publishes in top-tier journals and has close scientific relationships with renowned universities, scientific and professional associations worldwide.

**Coordinator:** Prof. Gianpaolo Abatecola - phd.economiaaziendale@uniroma2.it

**Website:** http://economia.uniroma2.it/phd/management
B.Sc. in Engineering Sciences

The B.Sc. in Engineering Sciences provides students with a solid background in the core disciplines (Mathematics, Physics and Chemistry) as well as specific preparation in Mechanics/Energetics, Electronics and ICT/Internet Engineering. The interdisciplinary nature of the course enables students to develop a wide range of transferable skills: our students are able to solve engineering problems through laboratory experiments, numerical simulations and analysis of results. Graduates in Engineering Sciences are highly valued by multinational corporations, large international companies, private and public industries that seek young professionals with excellent operational skills, fluent use of English and the ability to engage critically with a range of different materials. Most of our graduates also go on to further study in Master’s of Sciences either in Italy or abroad.

Web References and Contacts
Coordinator:
Prof. Roberto Verzicco
verzicco@uniroma2.it
International Admissions Office & Management Office:
Carlotta Dell’Arte
carlotta.dell.arte@uniroma2.it
Programme Office:
Simona Ranieri
info@engineering-sciences.uniroma2.it

Mandatory Courses

<table>
<thead>
<tr>
<th>COURSE</th>
<th>ECTS</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Economics</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Fundamentals of Chemistry</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Fundamentals of Computing</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Linear Algebra and Geometry</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Mathematical Analysis I</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Physics I</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>International English for Scientific Studies</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Analogue Electronics</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Electrical Network Analysis</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Feedback Control Systems</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Mathematical Analysis II</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Mechanics of Materials and Structures</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Physics II</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Thermodynamics and Heat Transfer</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Digital Electronics</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Kinematics and Dynamics of Mechanisms</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Final Exam (Thesis)</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Formative Activities (Internship)</td>
<td>3</td>
<td>1, 2, or 3</td>
</tr>
</tbody>
</table>

Optional Courses

Students must choose 1 group only among the 3 ones listed below:

GROUP 1: Mechanical and Energy Engineering

<table>
<thead>
<tr>
<th>COURSE</th>
<th>ECTS</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Systems</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Fluid Machinery</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Machine Design</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Manufacturing Technologies</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

GROUP 2: Electronic Engineering

<table>
<thead>
<tr>
<th>COURSE</th>
<th>ECTS</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Electronics</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Experimental Electronics</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory of Sensors</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>VLSI Circuit and System Design</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

GROUP 3: ICT and Internet Engineering

<table>
<thead>
<tr>
<th>COURSE</th>
<th>ECTS</th>
<th>YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Signal Processing</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Electromagnetic Fields</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Telecommunications</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Networking and Internet</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>
M.Sc. in Mechatronics Engineering

Tor Vergata University of Rome offers a M.Sc. in Mechatronics Engineering that combines electronics, mechanics, control theory and robotics. This Degree course merges fundamental elements of science, technology, and business to prepare second level graduates for a wide range of jobs in the mechatronics industry. It offers core graduate courses taught by research faculty members, alongside with elective courses taught by prominent experts in their fields, in all areas of Mechatronics. The training activity includes lab activities that give students the possibility of gaining valuable hands-on experience and opportunities to build personal and professional networks. Students will also develop specific experience in industrial labs. The choice of the study plan is based on the Bachelor’s degree.

Academic Programme

### Systems

**Year 1**
- Innovative Materials with Laboratory 6
- Robot Mechanics 9
- Power Electronics and Electrical Drives 9
- Internal Combustion Engines 9
- Vlsi Circuit and System Design 9
- Nanotechnology 6
- Optional Courses 12

**Year 2**
- Electronics of Iot And Embedded Systems 6
- Electronics of Iot 6
- Design of Embedded Systems for Mechatronics 6
- Integrated Sensors 9
- Control of Mechanical Systems 9
- Measurement Systems For Mechatronics 6
- Internship 6
- Final Exam 12
- Control of Electrical Machines 6

**Total** cfu 120

### Electronics

**Year 1**
- Kinematics And Dynamics Of Mechanisms 9
- Power Electronics And Electrical Drives 9
- Optional Courses 6
- Mechanics Of Materials And Structures 9
- Internal Combustion Engines 9
- Vlsi Circuit And System Design 9
- Thermodynamics And Heat Transfer 9

**Year 2**
- Electronics Of Iot And Embedded Systems 6
- Electronics Of Iot 6
- Design Of Embedded Systems for Mechatronics 6
- Integrated Sensors 9
- Control Of Mechanical Systems 9
- Measurement Systems For Mechatronics 6
- Optional Courses 6
- Internship 6
- Final Exam 12

**Total** cfu 120

### Mechanics

**Year 1**
- Digital Electronics 9
- Robot Mechanics 9
- Power Electronics And Electrical Drives 9
- Internal Combustion Engines 9
- Feedback Control Systems 9
- Analogue Electronics 9

**Year 2**
- Electronics Of Iot And Embedded Systems 6
- Electronics Of Iot 6
- Design Of Embedded Systems for Mechatronics 6
- Integrated Sensors 9
- Control Of Mechanical Systems 9
- Optional Courses 12
- Internship 6
- Final Exam 12

**Total** cfu 120

Web References and Contacts
Coordinator:
Prof. Gian Carlo Cardarilli
Programme Office:
Simona Ranieri
Contact:
info@mechatronics.uniroma2.it
M.Sc. in ICT and Internet Engineering

The M.Sc. in ICT and Internet Engineering provides the skills needed to support and drive the Digital Transformation of our society. Our engineers will be able both to design the basic technologies (sensing, communication and networking) and to manage the Internet-based infrastructures and services emerging in many application domains (energy, transport, society, health, etc). Our Degrees offer learning paths in the Internet of Things, Cybersecurity, Communication Technologies, Space and Satellite Systems, covering the thematic areas Sensing & Communications, Networks & Security, Data Analytics & Methodologies.

Web References and Contacts
Programme Office:
Rosanna Gervasio
E-mail: rosanna.gervasio@uniroma2.it
Coordinator:
Prof. Stefano Salsano
E-mail: stefano.salsano@uniroma2.it
## M.Sc. in Chemical Nano-Engineering

The Erasmus Mundus Master (Laurea Magistrale) Chemical Nano-Engineering (CNE) is a Joint Master programme offered by three European universities: University of Rome Tor Vergata (Italy), Aix-Marseille University (France), Wroclaw University of Science and Technology (Poland).

This Master Course offers an original programme in the highly innovative domain. Skills will be acquired at the strongly interdisciplinary level needed to master emerging Nano-technologies and to develop original concepts and applications aiming at novel engineering breakthroughs in many domains; biomedical nanotechnologies, nanomaterials or applications for environment.

The originality of the programme is that it deepens the principles of chemistry and engineering with a special orientation in the field of nanotechnology and a strong address to the industrial reality. An additional peculiarity of this programme of this programme is based on the extensively developed courses dealing with the numerical design and engineering applications of Nano-systems. CNE programme is aimed at preparing the students to construct and realise individually or in a team all the steps of a research and development project in the domain of nano-sciences et nanotechnologies, mobilising various pluridisciplinary parties.

### Master’s Objectives

- Ensure an interdisciplinary training in the field of nano-engineering, which includes a deep understanding of the chemistry and the methods of synthesis and characterization of nano-materials and nano-systems
- Give the students expertise in numerical modeling to predict the chemical and physical properties at the nano-scale
- Train the students to synthesise, characterise and model objects of the nano-world, in order to understand their properties, using disciplinary knowledge of fundamental sciences and transdisciplinary knowledge of nano-sciences
- Develop a creative, experimental approach to prepare, characterise and model nano-objects (nanostructures, nanomaterials or nano-devices) with unknown properties, or resolve problems related to their identification/application/production
- Prepare the students for a career in the field of nanotechnology, by offering them a robust experience in this multidisciplinary domain of sciences and engineering

## Academic Programme

### Year 1

- Nano-Electroch Emity
- Solid State Chemistry And Nano-Materials
- Organic Chemistry of Nano-Materials
- Basic Quantum Chemistry Modeling
- Computational Modeling of Nano-Systems
- Thermodynamics of Materials, Interactions and Surface Forces
- Nano-Engineering Seminar++ Project 1
- English Language Laboratory 1
- Structure and Cryst Allography of Solids
- Synthesis and Fabrication of Nano-Engineering Systems
- Fabrication of Smart Polymers
- Engineering of Nano-Machines
- Bio-Photonics
- Biomaterials - Biomedical Devices
- Nanostructures in Industrial and Numerical Applications
- Economics And Management
- Optional Courses

### Year 2

- Characterization of Nano-Engineering Systems
  - Fundamentals of Characterization of Nano Systems
  - Characterization of Nano-Engineering Systems
- Nanoscale Synthesis Methods
- Macromolecular And Supramolecular Chemistry
- Nanoscale Energy Technology
- Nano-Sensors And Micro-Fluidics
- Optional Courses: 2 Exams
- Option A “Chemistry” or Option B “Modelling”,
- Option A: Structural and Functional Properties of Biopolymers and Nmr of Nano-Systems,
- Option B: Nanoscale Structural Transformations and Kinetics and Probability and Statistical Methods for Modelling Engineers
- Optional Courses
- Final Exam
- Total: 120 cfu

### Web References and Contacts

Coordinator:
 Prof. Maria Luisa Di Vona
Contacts: divona@uniroma2.it

---

[Qr Code Image]
**PhD Civil Engineering**

- **Duration:** 3 years
- **Admission conditions:** Qualifications evaluation and Oral Exam
- **Language/s required for the exam/s:** English or French
- **Medium of Instruction:** Italian and English

The PhD programme in Civil Engineering includes all the research lines in Civil engineering and Architecture. The disciplinary aim ranges from the scientific sectors of structural, geotechnical and environmental engineering to the history of construction, architectural composition and history of architecture in the important European tradition of the polytechnic school. The doctorate proposes three lines of research:

i) Structural and Geotechnical Engineering (scientific contact: Prof. Paolo Bisegna);

ii) Architecture and Construction (scientific contact: Prof. Tullia Iori);

iii) Environmental engineering (scientific contact: Prof. Renato Gavasci).

The lines are closely linked to each other in methodological autonomy. Despite the specificity of the individual research of the candidates, the doctoral program is based on a solid base of training during the 3 years.

**Coordinator:** Prof. Tullia Iori - iori@uniroma2.it

**Website:** http://dicii.uniroma2.it/DOTT_INGCIV

**PhD Computer Science, Control and Geoinformation**

- **Duration:** 3 years
- **Admission conditions:** Qualifications evaluation and Written Exam and Oral Exam
- **Language/s required for the exam/s:** English
- **Medium of Instruction:** Italian and English

The PhD Programme offers advanced graduate education and cutting-edge research in the areas of computer science and engineering, systems, control, operations research and geoinformation. A wide variety of topics, both theoretical and applied, is developed throughout the programme of advanced studies. The main areas covered by the programme include control system science, system theory, robotics, algorithms, computer architectures, software engineering, distributed and mobile systems, operating systems, theoretical computer science, computer security, performance and reliability modeling, parallel and high-performance computing, operations research, optimization, machine learning, remote sensing, imaging, geospatial analysis, geomatics, IoT, electromagnetics and earth sciences, environmental monitoring, human security and health, analysis of human settlements. The broad and diversified academic offer enables Ph.D. candidates to acquire in the framework of their doctoral thesis solid scientific and methodological knowledge for tackling complex problems, which are typical in today’s rapidly evolving technologies.

**Coordinator:** Prof. Francesco Quaglia – francesco.quaglia@uniroma2.it

**Website:** http://www.ce.uniroma2.it/dottorato

**PhD Electronics Engineering**

- **Duration:** 3 years
- **Admission conditions:** Qualifications evaluation and Oral Exam
- **Language/s required for the exam/s:** English
- **Medium of Instruction:** English

The Doctoral Programme in Electronics Engineering concerns all the state of art aspects of modern Electronics. It is developed in 4 sections which are strictly interlinked through joint research activities: (i) Electronic Technologies and Systems; (ii) Telecommunications and Internet; (iii) Sensory and learning systems; (iv) Systems and technologies for space. PhD in Electronic Engineering aims to develop a teaching and research program that reflects the highest standards in the field by exploiting the following features:

- High-quality Ph.D Board staff
- The teaching has a well-defined structure and is divided into core courses, thematic courses, and seminars
- Availability of large structures of the Department of Electronics Engineering (laboratory and computing facilities as well as access to library resources)
- Financial sustainability of the doctorate program
- Well-defined administrative structure within the Department of Electronics Engineering

**Coordinator:** Prof. Corrado Di Natale - dinatale@uniroma2.it

**Website:** http://phdelectronics.uniroma2.it/

**PhD Design, Manufacturing and Operations Engineering**

- **Duration:** 3 years
- **Admission conditions:**
  - for Independent Candidates ONLY: Qualifications evaluation, Research Proposal and Oral Exam
  - for all other candidates, both from Italy and everywhere in the world: Qualifications evaluation and Written Exam and Oral Exam
- **Language/s required for the exam/s:** Italian and English
- **Medium of Instruction:** Italian and English

The PhD program is mainly intended for applicants having a master degree in Mechanical Engineering or other equivalent degree. The focus is on the deep knowledge of mechanical systems modeling, design theory and methodological issues concerning industrial technologies. The achievement of optimal solutions will be based on interdisciplinary knowledge approach, consistent scientific method, synergy of modelling capabilities, experimental competence as well as data analysis. These skills are always required in innovation developments, in original process technologies and in tuning of manufacturing activities. At the end of the three-year program the PhD students will gain advanced experiences that allow them to face with competence a large variety of tasks concerning technological innovations in the mechanical field. In every research activity, the analysis spans all aspects involved in the life of product, from the design, the reliability, the life-end and possible reuse.

**Coordinator:** Prof. Ettore Pennestrì - pennestri@mec.uniroma2.it

**Website:** http://ipri-phd.uniroma2.it/
PhD Enterprise Engineering

The PhD Programme, organized within the Department of Enterprise Engineering, provides the necessary skills to carry out highly qualified research activities at both public and private institutions, as well as qualifying skills in professional life, contributing to the creation of the European Area of Higher Education and the European Research Area. It is characterized by its multidisciplinary, international and intersectoral orientations, and aims to develop both in depth and frontier knowledge on topics in the field of management engineering (digital information law, knowledge management, operation & supply chain management, operation research, research evaluation, service management, simulation, sustainability, transport systems). The Programme is articulated around four cornerstones: 1) Training (ad hoc seminars, courses, summer schools, and the opportunity to spend a period of study abroad), 2) Research, 3) Impact (students are encouraged and financially supported to disseminate their scientific results at international workshops and to publish in high ranked journals), 4) Teaching (students are invited to offer lectures and to discuss their researches). The PhD Faculty belong to different disciplinary sectors and to several editorial boards of international scientific journals.

Coordinator: Prof. Nathan Levaldi Ghiron - levaldi@dii.uniroma2.it
Website: http://dottoratoimpresa.dii.uniroma2.it/

PhD Industrial Engineering

The problems of modern industry are more and more complex and require an intersectoral and interdisciplinary approach. In several cases the experimental techniques and the methods of calculus, modeling and simulation, typical of engineering must be supported by the specific knowledge of other disciplines, therefore experts of chemistry, applied physics, medicine are present in the scientific panel. In our PhD different competences meet to produce new projects and to realize machines, products and services of practical use. The spirit of the PhD programme is to train young researchers to become “problem solvers”. The main cultural and scientific themes of the PhD programme in Industrial Engineering are: (i) Materials and Productive Processes; (ii) Energy and Environment; (iii) Micro-technologies and Devices for Biomedical and Nuclear applications; (iv) Mechatronics; (v) Design and Technology for Medicine and Sports; (vi) Chemical, Mechanical, Thermal and Optical Measurements; (vii) Technology and Methods for Cultural Heritage.

Coordinator: Prof. Marco Marinelli – marco.marinelli@uniroma2.it
Website: http://phdindustrialengineering.uniroma2.it/
Single-cycle Degree in Medicine and Surgery

Our aim is to provide students with the knowledge and tools to become successful graduates allowing them to possess a biomedical, psychological and social perspective of the medical profession. The course is characterized by a multidisciplinary and integrated approach in disease prevention and health promotion. We teach our students in a patient-oriented environment involving GP surgery and Hospitals integrating scientific principles learnt from lectures and applying them in real-life situations. We also strive to develop new models for clinical reasoning and engage students to develop logical thinking during clinical practice. Students will learn about the latest medical advancements allowing them to grasp a fundamental understanding appropriate for Medicine in the 21st century combining an in-depth exploration of medical knowledge characterizing the Italian medical tradition with an international outlook suitable for the medical field of today. However, students should be aware that a basic knowledge of Italian will be required during clinical practice which starts from the third year.

We have in fact organized a free Basic Italian Course for all of our students. Students profit from studying in small classes allowing for greater interaction with professors and better access to clinical practice. The percentage of international students is almost unmatched for a degree in Medicine and Surgery in Italy, as Tor Vergata and a few other universities successfully implement medical degrees in English that are unique for public universities in Europe outside anglophone countries.

Web References and Contacts
Coordinator:
Prof. Stefano Marini
Contacts:
medschool@uniroma2.it

### Academic Programme

**Year 1**

| Semester 1 | | | | |
| --- | --- | --- | --- | |
| Chemistry and Introductory Biochemistry 7 | Human Anatomy I: 5 | Human Anatomy Module 1 | Human Anatomy Module 2 |
| Physics and Statistics: 2 | Applied Physics 7 | Informatics 2 | Medical Statistics 3 |
| Scientific writing and research communication 6 |

| Semester 2 | | | |
| --- | --- | --- | |
| Biology and Genetics: 9 | Applied biology 9 | Medical Genetics 1 |
| Histology and embryology 9 | Human Anatomy: 7 |
| Human Anatomy Module 1 | Human Anatomy Module 2 5 |
| Clinical Practice I 6 |

**Year 2**

| Semester 1 | | | |
| --- | --- | --- | |
| Biochemistry: 4 | Biochemistry 1 4 | Biochemistry 2 3 | Molecular Biology 3 |
| Physiology: 11 | Physiology 1 11 | Physiology 2 11 |
| Human anatomy II 5 | Immunochemistry and Immunopathology 7 |
| Immunology and Immunopathology 7 |

<p>| Semester 2 | | | |
| --- | --- | --- | |
| Biochemistry: 7 | Biochemistry 1 7 | Biochemistry 2 7 | Molecular Biology 7 |
| Physiology: 10 | Physiology 1 10 | Physiology 2 10 |
| Microbiology 10 | Clinical Practice II 3 |</p>
<table>
<thead>
<tr>
<th>Year 3 Semester 1</th>
<th>General Pathology and Pathophysiology</th>
<th>Laboratory Techniques in Medicine</th>
<th>Laboratory Medicine</th>
<th>Clinical Biochemistry and Molecular Biology</th>
<th>Clinical Pathology</th>
<th>Microbiology and Clinical Microbiology</th>
<th>Parasitology</th>
<th>Clinical symptomatology</th>
<th>Clinical Approach to the Surgical Patient</th>
<th>Clinical Approach to the Medical Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3 Semester 2</td>
<td>Human Sciences</td>
<td>History of Medicine</td>
<td>General and Social Pedagogy</td>
<td>Demoglophonanthropology</td>
<td>General and Applied Hygiene</td>
<td>General Pathology and Pathophysiology</td>
<td>General Pathology II</td>
<td>Systemic Pathology</td>
<td>Thoracic Surgery</td>
<td>Lung Disease</td>
</tr>
<tr>
<td>Year 4 Semester 1</td>
<td>Pharmacology</td>
<td>Pharmacology</td>
<td>Informatics</td>
<td>Systemic Pathology II</td>
<td>Gastroenterology and Hepatology</td>
<td>Endocrinology and Sexual Medicine</td>
<td>Nephrology</td>
<td>Urology</td>
<td>General Surgery</td>
<td>Applied Dietic Techniques Sciences</td>
</tr>
<tr>
<td>Year 4 Semester 2</td>
<td>Pharmacology</td>
<td>Medical Statistic</td>
<td>Pharmacology 2</td>
<td>Anatomic Pathology</td>
<td>Anatomic Pathology 2</td>
<td>Systemic Pathology III</td>
<td>Allergology and Clinical Immunology</td>
<td>Infectious Diseases</td>
<td>Blood Diseases</td>
<td>Rheumatology</td>
</tr>
<tr>
<td>Year 5 Semester 1</td>
<td>Neurological Sciences:</td>
<td>Neurosurgery</td>
<td>Neurology</td>
<td>Disease of musculoskeletal System</td>
<td>Disease of Musculoskeletal System</td>
<td>Rheumatology</td>
<td>Physical Medicine and Rehabilitation</td>
<td>Diagnosis Imaging and Radiotherapy</td>
<td>Diagnostic Imaging</td>
<td>Neuroradiology</td>
</tr>
<tr>
<td>Year 5 Semester 2</td>
<td>Obstetrics and Gynecology</td>
<td>Pediatric Sciences</td>
<td>Pediatric Surgery</td>
<td>Pediatrics</td>
<td>General and Specialized Pediatrics</td>
<td>General Surgery</td>
<td>General surgery I</td>
<td>Internal medicine and medical genetics</td>
<td>Internal medicine I</td>
<td>Medical Genetics</td>
</tr>
<tr>
<td>Year 6 Semester 1</td>
<td>Internal Medicine and Medical Genetics</td>
<td>Internal Medicine II</td>
<td>Medical Oncology</td>
<td>General Surgery</td>
<td>Maxillofacial Surgery</td>
<td>General Surgery II</td>
<td>Specialistic Disciplines:</td>
<td>Ophthalmology</td>
<td>Dentistry</td>
<td>Audiology</td>
</tr>
<tr>
<td>Year 6 Semester 2</td>
<td>Emergency</td>
<td>Internal medicine</td>
<td>Anesthesiology</td>
<td>General Surgery</td>
<td>Clinic Practice VI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
M.Sc. in Physical Activity and Health Promotion

A Master’s Degree course in Physical Activity and Health Promotion trains graduates who can work as skilled trainers in physical activities, trainers in amateur sports and wellness specialists. Graduates will be able to interact with other professionals such as Medical Doctors and biologists depending on their scientific and skillful competences. In particular, they will be able to cooperate with medical teams to cure and prevent pathologies such as chronic-degenerative diseases (e.g. metabolic syndrome, obesity, hypertension and ischemic heart diseases). Students have the possibility of attending a specific course of study depending on their previous degree either at Tor Vergata or at European and Non-European Universities, which are our partners.

Web References and Contacts
Coordinator:
Prof. Paola Sinibaldi
Contacts:
paola.sinibaldi@uniroma2.it

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics and private law of sport</td>
<td>8</td>
<td>Role of physical activity in health promotion</td>
</tr>
<tr>
<td>Physics and biomechanics of human movement</td>
<td>4</td>
<td>Emergency procedures</td>
</tr>
<tr>
<td>Pedagogy and psychology and sociology</td>
<td>12</td>
<td>Learning and motor control, protocols of physical activity in health, prevention and disease</td>
</tr>
<tr>
<td>Pharmacology and physiology of the exercise</td>
<td>10</td>
<td>Training methodology in fitness specialties and functional assessment</td>
</tr>
<tr>
<td>Research methodology</td>
<td>2</td>
<td>Job orientation</td>
</tr>
<tr>
<td>Food and nutrition for health and fitness and clinical pathology</td>
<td>6</td>
<td>Final exam</td>
</tr>
<tr>
<td>Optional courses</td>
<td>8</td>
<td>Total</td>
</tr>
</tbody>
</table>

Academic Programme
PhD Biochemistry and Molecular Biology

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English and Italian

The program emphasis is training in research, and each student works closely with members of the staff. The training is performed also in the Department of Biology and in the Department of Chemical Sciences and Technologies, as well as foreign international research Institutions such as the Medical Research Council in UK. The BMB graduate research training is interdisciplinary, with a concentration in one or more of the following areas: Molecular Dynamics, Computational Biology, Drug Design, Structural Biology, Biochemistry and Enzymology, Cell Death Biochemistry, Clinical Biochemistry, Oncogenes and Onco-suppressors, Skin Differentiation and Skin, Regulation of Transcription, Cell Cycle Regulation, microRNA. The methods and experimental approaches used to address questions within these areas range from the techniques of molecular biology, protein chemistry, cell biology and biophysics to those of molecular and developmental genetics.

Coordinator: Prof. Eleonora Candi - candi@uniroma2.it
Website: http://dottoratobiochimica.uniroma2.it

PhD Immunology, Molecular Medicine and Applied Biotechnology

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English

The PhD Course is an innovative interdisciplinary initiative finalized to provide cutting edge scientific skills in translational medicine. The IMAB Course aims at achieving the educational target of developing new scientists with a broad grounding in the subject and to prepare them for their scientific and professional futures beyond the scope of the study plan for an individual project. (i) to develop a cultural and experimental bridge between basic and applied research; (ii) to provide new scientists with a broad grounding in the subject and to prepare them for their scientific and professional futures beyond the scope of the study plan for an individual project; (iii) to facilitate the career opportunities in the fields of medicine, health science, and biomedical research. Educational goals: (i) the achievement of scientific independence and leadership capacity; (ii) the achievement of cutting edge methodological skills in both laboratory and clinical research; (iii) the achievement of high quality knowledge in molecular biology and biomedicine.

The PhD course will include training periods in world-renowned centers.
Coordinator: Prof. Maria Teresa Voso - voso@med.uniroma2.it
Website: http://scuoladipediatria.it/it/offerta-didattica/dottorato-di ricerca/

PhD Medical-Surgical Applied Sciences

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: Italian

PhD Programme in Medical-Surgical Applied Sciences is divided in five research areas:
- Oncoplastic Breast Surgery;
- Plastic Regenerative Surgery;
- Clinical Nutrition;
- Innovative Technologies and Medical Engineering for Surgery;
- Forensic sciences.

The PhD programme is open to holders of second-cycle degrees (ie Masters Degrees), or similar academic title, awarded overseas and recognized as equivalent to an Italian degree. The programme aims to prepare students for scientific research in field of Oncoplastic Breast Surgery, Plastic Regenerative Surgery, Clinical Nutrition, Innovative Technologies and Medical Engineering for Surgery Forensic Sciences.

Coordinator: Prof. Nicola Di Lorenzo - nicola.di.lorenzo@uniroma2.it
Website: http://scienzemedchir.dottorati.uniroma2.it/

PhD Medical-Surgical Biotechnologies and Translational Medicine

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: Italian and English
- Medium of Instruction: Italian

The PhD program includes three distinct areas, which have in common a marked focus on translational research applied to medicine:

(a) Biology of Reproduction and Development: it includes processes underlying male/female gametogenesis, mechanisms of stem cell differentiation and the early phases of embryo genesis.

(b) Biopathology and Innovative Therapies in Hematology: it focuses on recent advances in biomarkers applied to diagnostics and prognosis in human pathology, genetics and hematology.

(c) Diagnostic Imaging: it focuses on advanced imaging techniques for the study of morphology and functional aspects with special interest in the cerebral district. Research in this area aims to provide insights for modern applications of interventional radiology. This represents one of the most rapidly evolving fields in medicine, with important impact on treatment of severe disease of intravascular and extravascular nature, either benign or malignant.

Coordinator: Prof. Massimo De Felici - defelici@uniroma2.it
Website: https://biomedicinaeprevenzione.uniroma2.it/dottorato_biotec.html
PhD Microbiology, Immunology, Infectious Diseases and Transplants

The PhD Course in Microbiology, Immunology, Infectious Diseases and Transplants (MIMIT) provides an educational training aimed at the acquisition of basic microbiological and immunological knowledge and at the deepening of some specific topics, mainly at defining the pathogenetic characteristics of some of the micro-organisms of greatest medical and scientific interest. Particular attention will be dedicated to the biomolecular aspects of pathogenesis process involved in the infectious diseases, host’s immune response and transplantation-related diseases, and to the development of innovative diagnostic, therapeutic and vaccination approaches. The PhD program has interdisciplinary characteristics and allows students to acquire also skills in designing and conducting biomedical experiments in the field of organ transplants, cardio-thoracic surgery, liver disease, in immunocompromised patients, and/or hospitalized in intensive care, or with infections confined to the eye or skin.

Coordinator:
Prof. Francesca Ceccherini Silberstein - ceccherini@med.uniroma2.it
Website: http://www.mimit.med.uniroma2.it/

PhD Neuroscience

PhD Program in Neuroscience provides interesting and rigorous research training in a broad range of areas of neuroscience, including cognitive and behavioural neuroscience, molecular neuroscience and neurophysiology. Each PhD student will be assigned to a research group in which he/she will choose a research topic on the basis of his/her main scientific interests and personal background. Research activities will take place both in laboratories and clinics and, on completion of their training, the students will have acquired technical skills and learnt to carry out a research project. These objectives will be achieved through specific mentoring, which will teach students to autonomously drive scientific reasoning. They will also participate in lectures and interactive seminars to keep up to date with latest scientific developments. Finally, students will have the opportunity to perform part of their research activities in other Neuroscience Laboratories and Institutes, also abroad.

Coordinator: Prof. Diego Centonze - centonze@uniroma2.it
Website: https://dottoratoinneuroscienze-2019.uniroma2.it/

PhD Nursing Sciences and Public Health

This Doctoral Degree (PhD) has the objectives to prepare researchers who can contribute to the development of research methodologies in the field of nursing sciences and public health. During this PhD program, the students will acquire quantitative and qualitative research methodologies and then will be able to conduct observational and/or experimental studies within a multidisciplinary setting. This PhD consists of two different curricula, the first, for students with a Master Degree in Nursing Sciences, and the second for students with a degree in Medicine who are interested in Public Health. Both curricula convey the same vision of a modern health system, which is devoted to patients and their families, which is widespread in community settings, and aware of the influence that prevention, organization, and costs have on healthcare assistance.

Coordinator: Prof. Rosaria Alvaro - infermierisanitapubblica.dott@gmail.com
Website: https://www.dottoratotovergata.it/
PhD Systems and Experimental Medicine

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
- Language/s required for the exam/s: Italian and English
- Medium of Instruction: Italian and English

The PhD program is focused into five research topics in the Internal Medicine area: (a) Metabolic disorders (Obesity, Diabetes, NAFLD, Atherosclerosis) (b) Cardiovascular disorders, (c) Mucosal Inflammation disorders (Inflammatory Bowel Disease), (d) Clinical Oncology, (e) Respiratory disorders. The course is organized in three years with compulsory laboratory attendance. At the beginning of the first academic year, students will be assigned a research project and a laboratory supervisor in accordance with the purpose of the course. Every year a cycle of seminars concerning the PhD program topics will be organized by the Coordinator and the faculty. Seminars attendance is compulsory for PhD students. Doctoral students, following the supervisors’ proposal, may be authorized by the coordinator, after consultation with the faculty, to attend training periods at Italian or foreign laboratories to carry out some of the activities related to the achievement of the doctorate project.

Coordinator: Prof. Massimo Federici - federicm@uniroma2.it
Website: http://medicinadesistemi.uniroma2.it/corsi-di-dottorato/

PhD Tissue Engineering and Remodeling Biotechnologies for Body Function

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: Italian and English
- Medium of Instruction: English

This Multidisciplinary Research Doctorate aims to extend the knowledge both at the molecular and clinical levels on acquired and/or hereditary diseases, concerning (i) the motility apparatus, (ii) the maxillo-facial district, (iii) the vision system, (iv) the otorhinolaryngology system. The Doctorate is subdivided in four pathways, closely interrelated, namely of (i) molecular pathophysiology, (ii) tissue engineering and remodeling, (iii) clinical research, (iv) therapeutic and rehabilitation application.

Thanks to the multidisciplinarity of expertises, ranging between Biochemistry, Molecular Biology and Pathology, Cell Pathology, Tissue and Genetic Engineering, Biomechanics and Clinics, the Doctorate aims to accomplish:
- the optimization of biotechnological resources in the molecular and cellular field;
- the design and experimentation of innovative systems, pathways and diagnostic protocols.

Coordinator: Prof. Massimiliano Coletta - coletta@med.uniroma2.it
Website: http://scmt.uniroma2.it/?page_id=2354
Single-cycle Degree in Pharmacy

Our Degree Course in Pharmacy was founded by our School of Medicine and School of Science in partnership with the prestigious School of Pharmacy of the University of Nottingham (UK) and Alliance Boots. This collaboration provides an opportunity for our best students to join internship projects at Nottingham university, emphasizing the internationalization and making this course highly competitive and innovative. We offer a solid theoretical foundation with an emphasis on practical applications in order to allow operating not only in the community or hospital pharmacy but also in the field of pharmaceutical research, in the pharmaceutical industry and in the healthcare sector. The classical didactic activity is also integrated with outstanding lectures and workshops held by qualified scientists with different backgrounds.

Another great innovation of the course is the introduction of teachings in the field of Regulatory Sciences which provides an overview of the regulatory affairs in the EU and its effect on medicinal product development.

Academic Programme

<table>
<thead>
<tr>
<th>Year 1</th>
<th>General and Bio-inorganic Chemistry 12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Applied Mathematics 6</td>
</tr>
<tr>
<td></td>
<td>Applied Physics 6</td>
</tr>
<tr>
<td></td>
<td>Human Anatomy: 8</td>
</tr>
<tr>
<td></td>
<td>Introduction to Biology and Genetics: 10</td>
</tr>
<tr>
<td></td>
<td>Organic Chemistry 8</td>
</tr>
<tr>
<td>Year 2</td>
<td>Analytic Chemistry 8</td>
</tr>
<tr>
<td></td>
<td>Drug analysis: 16</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Botany &amp; Pharmacognosy: 8</td>
</tr>
<tr>
<td></td>
<td>Microbiology and Immunology 9</td>
</tr>
<tr>
<td></td>
<td>Biochemistry I 6</td>
</tr>
<tr>
<td></td>
<td>Molecular Biology 7</td>
</tr>
<tr>
<td>Year 3</td>
<td>Medicinal Chemistry I 8</td>
</tr>
<tr>
<td></td>
<td>Human Physiology 8</td>
</tr>
<tr>
<td></td>
<td>Biochemistry II 6</td>
</tr>
<tr>
<td></td>
<td>General and Clinical Pathology: 10</td>
</tr>
<tr>
<td></td>
<td>General and Molecular Pharmacology and Toxicology 8</td>
</tr>
<tr>
<td></td>
<td>Human Nutrition and Dietetics 6</td>
</tr>
<tr>
<td></td>
<td>Medical Statistics and Clinical Studies Methods 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 4</th>
<th>Medicinal Chemistry II 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neuropsychopharmacology 6</td>
</tr>
<tr>
<td></td>
<td>Special Pharmacology and Therapy 10</td>
</tr>
<tr>
<td></td>
<td>Antimicrobial and Anticancer Pharmacology and Pharmacogenomics 10</td>
</tr>
<tr>
<td></td>
<td>Internal Medicine and Dermatology 6</td>
</tr>
<tr>
<td></td>
<td>Nutrition science and Nutrigenomics 8</td>
</tr>
<tr>
<td></td>
<td>Biopharmaceutics and Preformulation 6</td>
</tr>
<tr>
<td>Year 5</td>
<td>Regulatory and Pharmacoeconomic Aspects 11</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Technology with</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Compounding Practices 12</td>
</tr>
<tr>
<td></td>
<td>Italian and European Pharmaceutical Legislation and Commercial Law 10</td>
</tr>
<tr>
<td></td>
<td>Optional courses 12</td>
</tr>
<tr>
<td></td>
<td>Training in pharmacy 30</td>
</tr>
<tr>
<td></td>
<td>Final exam 15</td>
</tr>
<tr>
<td>Total</td>
<td>cfu 300</td>
</tr>
</tbody>
</table>

Web References and Contacts
Coordinator: Prof. Robert Giovanni Nisticò
Contacts: segreteria@farmacia.uniroma2.it
M.Sc. in Biotechnology

Tor Vergata University of Rome provides an exciting M.Sc in Biotechnology program that combines biochemistry, molecular biology, genetics, pharmacology and microbiology with business fundamentals and ecology. This Degree course merges fundamental elements of science, technology and business to prepare second-level graduates for a wide range of jobs in the biotechnology industry. The course also includes a lab internship that gives students the possibility of gaining valuable hands-on experience and opportunities to build personal and professional networks.

Students may choose between two curricula:
Applied Biotechnology, which aims at developing a deep knowledge of the theory and fundamentals of biotechnology and the necessary skills to perform a variety of roles in laboratories engaged in research or development of biotechnological products.
Clinical Research, which aims at training professional figures involved in organizational, managerial and control roles in the field of clinical trials.

Web References and Contacts
Coordinator:
Prof. Andrea Battistoni
Contacts:
andrea.battistoni@uniroma2.it

Academic Programme

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>Plant Biomass and Phytotechnologies</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Structural and Industrial Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Industrial Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Applied Ecology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Pharmacology and Pharmaceutical Chemistry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Chemistry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Microbial Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Gene Expression and Regulation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Applied Immunology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Biosensor Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Applications of Plant Metabolites</td>
<td>6</td>
</tr>
<tr>
<td>Year 2</td>
<td>Nanobiotechnology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Applied Economics</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Optional Courses</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Final Exam</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>120 cfu</td>
</tr>
</tbody>
</table>

Clinical Research

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clinical Research Methodology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Applied Clinical Research</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Structural And Industrial Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Structural Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Industrial Biochemistry</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Applied Pharmacology And Pharmaceutical Chemistry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Chemistry</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Pharmacology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Clinical Research Development and Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Clinical Research Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Clinical Research Quality Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Clinical Monitoring</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Drug Design And Development</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Applied Immunology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical Applications of Plant Metabolites</td>
<td>6</td>
</tr>
<tr>
<td>Year 2</td>
<td>Nanobiotechnology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Regulatory Activities</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Optional Courses</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Final Exam</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>120 cfu</td>
</tr>
</tbody>
</table>
M.Sc. in Physics
Curriculum in Astrophysics and Space Science

Our Curriculum in Astrophysics aims at providing high-quality students with an excellent background in Astrophysics, to introduce them to the world of modern astrophysical research, and to promote their future career in this field. Modern Astrophysics is one of the most rapidly evolving scientific fields: the current period is often defined as “Golden Age of Astrophysics”. Recent discoveries have significantly improved our knowledge in many different areas: solar and stellar physics, extragalactic astrophysics, observational cosmology, physics of gravitation. The curriculum in Astrophysics is designed to provide the students with a strong background and competences in all these sectors. The practical activities of this course are designed to train students in aspects connected with technological developments, data analysis and image processing and it is aimed at enhancing their capabilities in inter-sectorial areas (modeling, problem solving, high performance computing, big data handling).

The curriculum is in collaboration with several research institutions in the Tor Vergata area, such as INAF, INFN, ASI, and it offers classes taught by researchers from these institutions, who represent the forefront in their fields.

Academic Programme

Year 1
- Mathematical Methods for Physics: 8 cfu
- Quantum Mechanics: 8 cfu
- Radiative Processes: 6 cfu
- Modern Astrophysics: 6 cfu
- Astrophysical Techniques: 8 cfu
- Relativity and Cosmology: 6 cfu
- Optional Courses: 12 cfu
- English Language: 2 cfu
- Big Data Machine Learning and Astrophysical Data: 4 cfu

Year 2
- Numerical Methods for Astrophysics: 6 cfu
- Optional Courses: 18 cfu
- Final Exam: 36 cfu

Total: 120 cfu

Web References and Contacts
Coordinator:
Prof. Annalisa D’Angelo
Contacts:
annalisa.dangelo@roma2.infn.it
samanta.marianelli@uniroma2.it
M.Sc. in Physics
Curriculum in Physics
of Fundamental Interactions
and Experimental Techniques

This course aims at providing advanced theoretical and experimental background in the fundamental mechanisms of interaction between particles or objects, to which all the known forces of nature – gravitational, electromagnetic, strong and weak – can be traced. These mechanisms are of the utmost importance in understanding the present state of the universe and how it has evolved. The course also connects the most advanced physics courses with the application of modern technology and providing experiences in the field of science and innovation.

The Curriculum is designed in collaboration with research institutions of INFN, CNR, ENEA, ASI, INAF in the Tor Vergata area. Students may be involved in research projects within the main experiments in the fields of particle physics, gravitational physics, astroparticle physics and dark matter search, nuclear and hadronic physics, accelerator physics, neutron radiation for medical therapy.

Web References and Contacts
Coordinator:
Prof. Annalisa D’Angelo
Contacts:
annalisa.dangelo@roma2.infn.it
samanta.marianelli@uniroma2.it

### Academic Programme

<table>
<thead>
<tr>
<th>Year 1</th>
<th></th>
<th>Year 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematical methods for physics</td>
<td>8</td>
<td>Laboratory of fundamental interactions</td>
<td>10</td>
</tr>
<tr>
<td>Nuclear and hadronic physics</td>
<td>6</td>
<td>Elective courses</td>
<td>12</td>
</tr>
<tr>
<td>Particle physics</td>
<td>6</td>
<td>Final exam</td>
<td>38</td>
</tr>
<tr>
<td>Gravitation</td>
<td>6</td>
<td>Total</td>
<td>cfu 120</td>
</tr>
<tr>
<td>Quantum field theory</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astroparticle physics</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optional courses</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English language</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English language</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English language</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English language</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English language</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
M.Sc. in Physics
Curriculum in Physics of Complex Systems and Big Data

Modern life is founded on discoveries in Physics and Physics-based sectors are a major contributor to the Italian economy according to a recent Deloitte report. The curriculum in Physics of Complex Systems and Big Data aims at providing students with the ability to deal with complex systems, identifying the most adequate computational platforms and software frameworks in order to elaborate solutions to specific problems.

In addition to the advanced physics courses on Quantum Mechanics, Material Science and Mathematical Methods for Physics, the course offers specific lectures on: Optimization and Statistical Mechanics, Complex and Neural Networks, Digital Data Analysis, Advanced Statistics and data Bases. Many lectures include practical activities with laboratories in collaboration with research centers in the Tor Vergata area: Informatics, Electronics and Astrophysics.

Web References and Contacts
Coordinator:
Prof. Annalisa D'Angelo
Contacts:
annalisa.dangelo@roma2.infn.it
samanta.marianelli@uniroma2.it

<table>
<thead>
<tr>
<th>Academic Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
</tr>
<tr>
<td>Mathematical methods for physics</td>
</tr>
<tr>
<td>Quantum mechanics</td>
</tr>
<tr>
<td>Materials science</td>
</tr>
<tr>
<td>Optional courses</td>
</tr>
<tr>
<td>English language</td>
</tr>
<tr>
<td>Optimization and statistical mechanics</td>
</tr>
<tr>
<td>Complex and neural networks</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
</tr>
<tr>
<td>Digital data analysis</td>
</tr>
<tr>
<td>Advanced statistics</td>
</tr>
<tr>
<td>Optional groups</td>
</tr>
<tr>
<td>Final exam</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
PhD Astronomy, Astrophysics and Space Science

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English
- Activated on alternate years at Universities of Rome Tor Vergata and Sapienza

The PhD course in Astronomy Astrophysics and Space Science is a joint research program between Tor Vergata University of Rome, the Sapienza-University of Rome and the National Institute of Astrophysics (INAF). At the end of the program PhD students will obtain a joint degree of the two Universities. The aim of the Astronomy, Astrophysics and Space Science Ph.D. Program is the formation of young researchers at a highly competitive international level. In addition, the PhD aims to train managers in private/public organizations that deal with complex systems. The PhD program covers, in both their theoretical and observational aspects, almost all the topics of modern Astrophysics and Space Science in: (i) Galactic and Extragalactic Astrophysics; (ii) Gravitation and Cosmology; (iii) Solar, Planetary, and Stellar Physics; (iv) Space Sciences. PhD Students will have the opportunity to access all the facilities from 5 different research institutes in the Area.

Coordinator: Prof. Nicola Vittorio - nicola.vittorio@roma2.infn.it
Website: https://www.fisica.uniroma2.it/it/node/52

PhD Evolutionary Biology and Ecology

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English

The program offers a unique multidisciplinary training experience leading to a Doctorate degree. The Biology Department, in partnership with private and public institutions in the Rome area, have formed a Program that crosses traditional disciplinary boundaries to offer the student the appropriate interdisciplinary research training and to enrich the plurality of knowledge. The Scientific Board is made of experts of various scientific fields, and graduate students can select from research opportunities in areas as Anthropology, Applied Biology and Biochemistry, Botany, Ecology, Genetics, Microbiology, Parasitology, Physiology and Zoology. The main goal of the program consists of enabling students to become independent, creative, and productive researchers, by cultivating their skills in a multidisciplinary environment. Specialized courses are programmed as well as ad hoc seminars in research management, research & funding systems, exploitation of research results and intellectual property.

Coordinator: Prof. Andrea Novelletto - info@bee-phd.uniroma2.it
Website: http://multisito.uniroma2.it/dottoratobee/?page_id=231

PhD Chemical Sciences

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: Italian and English
- Medium of Instruction: Italian

The PhD in Chemical Sciences is aimed to outstanding students, who will be the next-generation researchers in Chemistry and related fields. Our Doctor is a Scientist in fundamental or applied fields where Chemistry is key, from health to energy, to low impact processes. This is accomplished by a program of activities on: (i) Material Chemistry and Biomaterials; (ii) Synthesis and Reactivity; (iii) Chemical (bio) sensors; (iv) Chemistry of biomolecules and macromolecules; (v) Supramolecular chemistry, according to the expertise and the scientific activities of our groups. During the PhD, the student attends courses and seminars provided by Professors and Researchers of our University or Visiting Professors and each year are asked to report on the achieved progresses to the Members of the Doctorate School. Finally, our PhD School encourages the students to study and work abroad using the several programs for student mobility and taking advantage of the many collaborations of the Department with other Universities and Research Centers.

Coordinator: Prof. Gaio Paradossi - paradossi@stc.uniroma2.it
Website: http://stc.uniroma2.it/en/chemical-sciences/
PhD Mathematics

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: Italian or English
- Medium of Instruction: English

The school aims at preparing highly skilled mathematicians able to work both in Academia and in private or public institutions using advanced mathematical research. To this end, several advanced courses are offered each year and a great number of seminars are organized regularly. The Department is a very lively stimulating scientific environment, involved in European Networks, hosting research centers and international schools. More activities are organized with other Rome Math Departments and institutions such as INdAM and IAC. PhD students are offered a variety of research options both in pure and applied Mathematics for their thesis subject. The high scientific quality of the research options at the Department is testified by recent research activities are performed using the Department facilities (laboratories, computational resources, ...) and in collaboration with other national and international research centers (CERN, INFN, CNR). Within the PhD programs, students are encouraged and financially supported to partecipate and disseminate their scientific results at international workshops and to promote new scientific challenges.

Coordinator: Prof. Andrea Braides - braides@mat.uniroma2.it
Website: http://www.mat.uniroma2.it/~dott/pagina2.html

PhD Materials For Health, Environment and Energy

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English

Access to renewable and sustainable energy conversion and storage devices, environment protection and preservation together with the development of technologies allowing to enhance health care and life quality for the aging world population are the greatest challenges of the 21st century. This requires a multidisciplinary effort involving chemistry, physics, materials science, biology, and medicine. Materials are crucial for the development of all sustainable technologies and this PhD Course is addressed to the investigation of materials and related devices, it enables the PhD candidates to acquire solid scientific and methodological knowledge for tackling complex problems in the framework of their doctoral thesis. Our aim is to prepare experts in materials preparation, processing and application in the fields of energy and health that might then be occupied in academia as well as in professional or industrial enterprises. Candidates are expected to be pro-active researcher and team player, adaptable to a multicultural environment.

Coordinator: Prof. Elisabetta Di Bartolomeo - dibartolomeo@uniroma2.it
Website: http://materials-phd.uniroma2.it

PhD Physics

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: Italian and English

The Department of Physics of Tor Vergata University of Rome organizes and supports the PhD in physics with top level scientific scientists and international collaborations on the following scientific areas: (i) High energy physics, nuclear physics and theory of fundamental interactions; (ii) Physics of condensed matter (solid, liquid, soft, disordered systems); (iii) Computational physics and physics of complex systems; (iv) Astrophysics and space physics; (v) Materials science, nanoscience and applied physics; (vi) Atmospheric Physics and Climate. Research activities are performed using the Department facilities (laboratories, computational resources, ...) and in collaboration with other national and international research centers (CERN, INFN, CNR). Within the PhD programs, students are encouraged and financially supported to participate and disseminate their scientific results at international workshops and to promote new scientific challenges.

Coordinator: Prof. Roberto Benzi - benzi@roma2.infn.it
Website: https://www.fisica.uniroma2.it/it/node/51

PhD Cellular and Molecular Biology

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English

The PhD course in Cellular and Molecular Biology (BCM) aims to provide students with the tools necessary to contribute to the advancement of science in the fields of molecular Biology, Cell Biology, Cellular Biochemistry, Molecular Genetics, and Bioinformatics, through rigorous research and the publication of high-impact articles. This PhD program will allow the students to acquire scientific and technical skills, essential for the continuation of their scientific and research career. BCM PhD students will: (i) analyse a scientific problem, formulate hypotheses and choose the appropriate experimental approaches to provide answers and solutions; (ii) design the experiments, according to a time plan, to achieve interrelated results, learn to draw conclusions, on the basis of the results obtained, and assess their statistical significance; (iii) become intellectually independent; (iv) achieve excellent communication skills in English; (v) conduct responsible research and develop the ability to work in a team.

Coordinator: Prof. Maria Rosa Ciriolo - ciriolo@bio.uniroma2.it
Website: http://mint.bio.uniroma2.it/dottorato_bcm/
http://www.neidos.it/index.pl?pos=02.01&course=2

PhD Economics

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English

The PhD in Economics at the University of Rome Tor Vergata provides advanced training in economics to Ph.D. candidates, aiming to prepare them for research career. This training will be provided through advanced courses in microeconomics, macroeconomics, international trade and finance, industrial organization, computational methods and information economics, risk management, and environmental economics.

Coordinator: Prof. Marco Angelini - angelini@economia.uniroma2.it
Website: http://economia.uniroma2.it/it/dottorato.html

PhD Chemistry

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: English
- Medium of Instruction: English

The PhD program in Chemistry at the University of Rome Tor Vergata is designed to provide advanced training in chemistry to Ph.D. candidates. This training will be provided through a combination of advanced courses in chemistry and research projects.

Coordinator: Prof. Carlo Ferrari - ferrari@chimica.uniroma2.it
Website: http://chimica.uniroma2.it/it/index.html

PhD Mathematics

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: Italian or English
- Medium of Instruction: English

The school aims at preparing highly skilled mathematicians able to work both in Academia and in private or public institutions using advanced mathematical research. To this end, several advanced courses are offered each year and a great number of seminars are organized regularly. The Department is a very lively stimulating scientific environment, involved in European Networks, hosting research centers and international schools. More activities are organized with other Rome Math Departments and institutions such as INdAM and IAC. PhD students are offered a variety of research options both in pure and applied Mathematics for their thesis subject. The high scientific quality of the research options at the Department is testified by recent research activities are performed using the Department facilities (laboratories, computational resources, ...) and in collaboration with other national and international research centers (CERN, INFN, CNR). Within the PhD programs, students are encouraged and financially supported to participate and disseminate their scientific results at international workshops and to promote new scientific challenges.

Coordinator: Prof. Andrea Braides - braides@mat.uniroma2.it
Website: http://www.mat.uniroma2.it/~dott/pagina2.html
M.A. in European History

Tor Vergata University of Rome offers a new, innovative approach to the history of Europe in a global perspective. The Joint M.A. in European History is a stimulating interdisciplinary, comparative two-year international programme offered by a consortium of prestigious Universities based in European capitals.

Full members Universities:
France: Université Paris Diderot
Germany: Humboldt-Universität zu Berlin
Ireland: University College Dublin
Italy: Tor Vergata University of Rome
University of Rome RomaTre

Associated members:
Austria: Universität Wien
Bosnia: University of Sarajevo
Estonia: Tallinn University
Portugal: Universidade Nova de Lisboa
Serbia: University of Belgrade
Spain: Universidad Complutense de Madrid

Students enrolled in the joint M.A. in European History at Tor Vergata University, don’t have to pay extra-fees at the partner Universities during the mobility programmes and they can also apply for specific Erasmus grants for the term spent abroad.

Every year the MEH organizes a Summer school for students of the programme in which they can meet other students and faculty members of all participating academic Institutions, to discuss fundamental topics and to better know each other.

The Joint MA in European History is particularly suited for students interested in pursuing careers in international organisations and foundations. They may achieve skills that can be applied to a broad range of careers, e.g. in educational and cultural sectors, as well as in journalism, administration or diplomacy. The programme will be an excellent preparation for those wishing to complete a PhD in History.

Study Structure
The Joint MA in European History is a two year Master’s programme divided into four phases (two winter and two summer terms). The programme starts in the winter term and has a modular structure. It is made up of 120 Credit points (ECTS) – 30 ECTS each term.

All students are obliged to study at least at two of the participating universities in different countries, with the recognition of the exams taken at the partner universities. In order to obtain a joint degree (Berlin, Dublin) or a double degree (Paris, Rome) students must complete at least 30 ECTS at a full member partner university and the Master’s thesis must be co-supervised by faculty members of the home and of the partner university. For a second period of mobility students can also choose an associated member university.

Web References and Contacts
Coordinator:
Prof. Dr. Daniela Felisini - felisini@uniroma2.it
Student Assistant:
Dr. Luca Coniglio - coniglio.luca@gmail.com
M.A. in Art History in Rome from Late Antiquity to the Present

The Master of Arts in Art History in Rome from Late Antiquity to the Present is a two-year programme taught entirely in English, thus internationally open and practice-oriented. Its hallmark rests in its intensive nature, concentrated on the exceptional quality of Rome monumental heritage.

During the first year the students will be provided with a solid background on Roman art and architecture from Constantine Age to the Present; during the second year they will be able to choose among a wide range of specialized courses, naturally orienting their academic careers towards a more specific field of study. The teaching will be mostly held in direct contact with the art works and contexts, thanks to frequent surveys and visits to museums, collections, buildings and monumental sites. The programme has close ties with many of the most important art history institutions active in Rome, both Italian and international, and offers a network of stages and internships helping students targeting their future professional development.

Web References and Contacts
Coordinator:
Prof. Maria Beltramini;
Contacts:
Programme Office
info@arthistoryrome.uniroma2.it
M.A. in Tourism Strategy, Cultural Heritage and Made in Italy

Tourism is a burgeoning industry all over the world, one of the primary and fastest-growing economic sectors and a key driver for socio-economic progress. These are the reasons why Tor Vergata University of Rome and our Department have set up an interdisciplinary Master’s Degree aimed at the training of international operators and experts in current strategies of tourism planning.

The Course responds to a wide demand for training and employment prospects in tourism, expressed by foreign and Italian students, who are already engaged in bachelor degrees in tourism and other sectors of our Universities as well as the other national and international ones.

Some institutions: (Convention Bureau Italia; Learn Italy – The Italian School, NY; FederCongressi; UAE Embassy), universities (Pennsylvania State University-Erie – Fine Arts Department; Technological University Dublin – School of Hospitality Management & Tourism; University of Brighton-Centre of Sport, Tourism and Leisure; Solent University, School of Business, Law and Communication – Southampton UK; Universyet Gdanski, Institute of Geography, Department of Spatial Management) and national and international companies (RSI Group/Tridente Collection; RCHS.EU; StepStone Group/ HOTELCAREER; European Interior Company – Bucarest) have declared an interest to collaboration agreements and conventions for traineeship and internship offers, as well as for work experiences for students and graduates.

Also, the training and professionalizing project of the Course was appreciated as an original proposal by some international projects (Expo Dubai 2020 – “Forgotten connections. The Islamic heritage in Italy”; Programa Institucional De Internacionalização – Capes/Print (2018) in cooperation with Brazilians universities; Professional Technical Center, promoted by Latium Region, Department of Education, Right to Education, University and Research, in the Economic and Professional Area (“Tourism and the economy of the sea”).

The proposed outlets are in the fields of business, the professional sectors, private bodies and public institute. The Master can also create employment opportunities and integration among students, university professors, experts and professionals of different cultures and backgrounds, taking advantage of the vast reputation and experience that only the Made in Italy brand can guarantee.

Web References and Contacts
Coordinator:
Prof. Marina Faccioli
Contacts:
faccioli@uniroma2.it

Academic Programme

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Insegnamento</th>
<th>CfU</th>
</tr>
</thead>
<tbody>
<tr>
<td>English for Tourism</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Web Marketing, Tourism Development and Made in Italy</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Business Plan and Marketing and Communication Elements for Italian Tourism Market</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Marketing and Communication Elements for Italian Tourism Market Business Plan</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Discipline Giuridiche e Sociali</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>International Protection of Cultural Heritage</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Sociology of Communication</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Statistics for Tourism</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Food Tourism and Agriculture in Italy</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Discipline del Territorio</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>New Scenarios and Tourism Strategies In Middle East from Oil Economy to Tourism Diversification</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Geopolitics of Tourism</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Territorial Management of Sustainable Tourism</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Tourism and Make in Italy: Italian Arts and Manufacturing</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Attività Affini e Integrative</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Intellectual Property, Patents and Trade Marks as Means of Legal Protection of Cultural Heritage, Tourism and ‘Made in Italy’</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Labour Law in Tourism</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Civil and Commercial Law in the People’s Republic of China Legal Order</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Discipline Storiche, delle Arti e dello Spettacolo</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Art Patronage over the Centuries</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Insegnamenti Extracurriculari:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue Management</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2</th>
<th>Insegnamento</th>
<th>CfU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Tourism</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Business Administration</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Cultural Heritage Economics and Technology for Sustainable Touristic Territorial Planning</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Discipline Storiche, delle Arti e dello Spettacolo</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Greek Art: Its Development and its Presence in Rome</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Roman Archaeology</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Roman Baroque Art</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Italy in the Grand Tour</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>History of Classical Archaeology: Collections, Museums and Conservation of Cultural Heritage</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Comparative Business History</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Attività Affini e Integrative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles of Labour Law</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Civil and Commercial Law in The People’s Republic of China Legal Order</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Music and Cultural Identity</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Russian Language</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Chinese Language</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Discipline del Territorio</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Niche Tourism Trend and Development</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Optional courses: Discipline Giuridiche e Sociali</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Tourism Public Law</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Communication Strategy for Tourism</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>- - Optional Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra Activities</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Stage</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Extra-curricular courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing and Tourism Business</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Strategic Events and Tourism Planning</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>
PhD Classical Antiquity and Its Reception: Archaeology, Philology, History

Since its establishment, the Tor Vergata University of Rome has always provided high-level education in Classics. In the last twenty years, the PhD courses in Ancient History and in Classics have constantly reached the top scores in the national rankings both for the global quality of research of our faculties and students and for the job opportunities provided after the conclusion of the courses. The disciplines taught in the PhD course cover a wide range of topics related to Greek and Roman civilization, from philology to history, from historiography to archaeology, from epigraphy to papyrology etc. Students are encouraged to undertake innovative research projects under the guidance of one or more teachers, and at the same time to develop a comprehensive understanding of the ancient world. Students are constantly encouraged to face the world of scientific publications, either directly or through the teachers’ mediation. In particular, they have the opportunity to understand from the inside the editorial life of national and international journals with which the Doctorate has collaborative relationships or that are themselves emanations of the Doctorate.

Coordinator: Prof. Fabio Stok - fabio.stok@uniroma2.it
Website: http://dott.antichita.uniroma2.it

PhD Comparative Studies: Languages, Literature and Arts

The aim of the scientific discipline known as “Comparative Studies” is to identify relationships between authors, texts, works of art, movements and phenomena of different cultures so as to highlight their characteristic aspects in terms of both continuity and specificity. In the contemporary era of multiculturalism and globalization, as the dissemination of ideas becomes increasingly more rapid and widespread, an openness to alterity acquires fundamental significance and impacts linguistic, literary and artistic experiences, thereby modifying consolidated models and creating new ones. On the basis of these considerations, and also with reference to recent interchanges within the European Union regarding cultural policies, the comparativist approach of the course, provided in Italian, permits an important and original expansion of the themes and perspectives of recent research in linguistics, literature and art history.

Coordinator: Prof. Pietro Trifone - trifone@lettere.uniroma2.it
Website: http://dottoratostudicomparati.uniroma2.it/

PhD Cultural Heritage, Education and Territory

The PhD program combines multiple research areas: geography, education, philosophy of education, comparative education, dynamic psychology, art history, archaeology, museology, theatre and film history, and history. While respecting the specificity of each area, the doctorate is characterised by an interdisciplinary approach that underlies the formation of young scholars who have highly developed cultural and methodological competences, whether in an academic context or in operational one. In addition to the relationship between the different areas - represented by members of the Doctoral Committee - the interdisciplinary approach of this course also features the use of technology, with particular reference to geographical, archaeological and art-historical fields. An important aspect that characterises this doctorate programme is its international character, due – above all - to the close relationships and frequent contact which most Doctoral Committee members have with foreign universities.

Coordinator: Prof. Giovan Battista Fidanza - fidanza@lettere.uniroma2.it
Website: http://bcft.lettere.uniroma2.it/

• Duration: 3 years
• Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
• Language/s required for the exam/s: Italian and English
• Medium of Instruction: Italian

• Duration: 3 years
• Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
• Language/s required for the exam/s: English
• Medium of Instruction: Italian

• Duration: 3 years
• Admission conditions: Qualifications evaluation and Oral Exam
• Language/s required for the exam/s: English
• Medium of Instruction: Italian and English
PhD History and Philosophical-Social Sciences

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Oral Exam
- Language/s required for the exam/s: Italian and a skill test for English as a foreign language
- Medium of Instruction: Italian

The PhD program in History and Philosophical and Social Sciences is organized into two curricula: 1) History 2) Philosophical and Social Sciences. The multidisciplinary and comparative approach represents the remarkable element of the Program. The Program promotes advanced training and research activities in a large number of disciplines: Medieval History, Modern History, Contemporary History, Economic and Business History, History of Christianity and Churches, Christian and Medieval Archaeology, Political Philosophy, Aesthetics, Sociology, History of Science et al. Professors and researchers work together to develop ideas through seminars, debates and exploration of sources. Moreover, scholars in many fields are invited to offer lectures and to discuss their researches. The didactic plan includes sessions in which the PhD students expose their researches, thus learn to develop and discuss their work, and so to join scholarly networks.

Doctoral students are offered the possibility to carry out periods of study abroad and to experience joint supervision by scholars based in foreign universities, with which our Program has co-tutorship agreements.

Coordinator: Prof. Daniela Felisini - felisini@uniroma2.it
Website: http://dottoratostoriaefilosofiasociale.uniroma2.it/

PhD Philosophy

- Duration: 3 years
- Admission conditions: Qualifications evaluation and Written Exam and Oral Exam
- Language/s required for the exam/s: At least 2 among English, French, Spanish and German at candidate’s choice
- Medium of Instruction: Italian
- Activated every three years alternately at Tor Vergata University of Rome and University of Roma Tre

The joint doctoral programme in philosophy of the Tor Vergata University of Rome and Roma Tre aims to meet cultural needs, which are different, but complementary and equally important: it intends to promote the specific heritage of philosophical studies, widely articulated and rooted in a tradition of high scientific value, and to enhance the interdisciplinary calling of philosophy, encouraging synergies with other forms of knowledge – i.e. theoretical, technical-scientific and ethical-practical. It provides yearly four main courses with frequent contributions by external experts. The educational offer is enriched by study days dedicated to different specific topics and to the discussion of the perspectives or outcomes of ongoing researches. The doctoral school keeps many collaborative relationships with Italian and foreign Universities and supports PhD dissertations under joint supervision.

A curriculum with the University of Paris 1 Panthéon Sorbonne confers a double degree. It is also starting an agreement with the Institute for Cognitive Science and Technology (CNR-ISTC).

Coordinator: Prof. Anselmo Aportone - anselmo.aportone@uniroma2.it
Website: http://dottoratifilosofiroma.org/
PhD Law and Judicial Remedies: Private Law, Comparative Law, Roman Legal System

• **Duration:** 3 years
• **Admission conditions:** Qualifications evaluation and Written Exam and Oral Exam
• **Language/s required for the exam/s:** English or French or German or Spanish or Chinese or Arabic or Persian (at candidate's choice)
• **Medium of Instruction:** Italian

The PhD promotes an interdisciplinary methodology, taking into account History of law, Comparative law, Civil law (substantive and procedural). The PhD has two specific paths:

**Judicial Remedies, Management and Company Law:** The path aims at educating the student in managing complex legal issues with an interdisciplinary approach, from both a substantive and a procedural legal perspective, taking into account legal comparison and issues of internationalization. Attending students will be guided and directed, integrating theoretical knowledge with practical training in judicial institutions, professional organizations, business management and administration.

**Roman Law, Civil Law and Comparative Law:** The path aims at providing knowledge and understanding of the role: 1) of Roman Law in the contemporary legal systems (Europe, Latin America and Asia), 2) of Islamic Law in the contemporary legal systems.

**Coordinator:** Prof. Massimo Papa - massimo.papa@uniroma2.it  
**Website:** http://dirittoetutela.uniroma2.it

PhD Public Law

• **Duration:** 3 years
• **Admission conditions:** Qualifications evaluation and Written Exam and Oral Exam
• **Language/s required for the exam/s:** English or French or German or Spanish (at candidate's choice)
• **Medium of Instruction:** Italian

The doctorate in Public Law is a unitary doctorate characterized by interdisciplinarity. The doctorate is divided into special areas of research:

**Constitutional and Administrative law covering:** Constitutional law, Administrative law, Institutional Public law, Canon law and Ecclesiastical law;

**International, European and Maritime law covering:** International law, European Union law, Maritime law;

**Penal law covering:** Criminal law, Criminal Procedure;

**Theory of the State covering:** Legal Philosophy and Theory of the State, History of Medieval law;

The above-mentioned areas are considered as including also the following sub-areas of research: Public Comparative law, Regional law, Multilevel Constitutionalism, Constitutional Justice, Administrative Justice, Public Economic law, Criminal Economic law, Tax law, History of Public law, Private International law and International civil Procedure.

**Coordinator:** Prof. Luigi Daniele - luigi.daniele@uniroma2.it  
**Website:** http://dot.dirittopubblico.uniroma2.it
1. Choose a course

http://en.uniroma2.it/academics/courses/

2. Meet the requirements

Before beginning the online application, applicants are required to check carefully the admission requirements of each Course.

**Bachelor's Degree**
In order to enroll to a Bachelor's Degree in Italy you must own a Secondary School Diploma, having attended at least 12 years of school. Medicine and Surgery studies can be entered only passing a National entry test (IMAT). You can start your online application process during your last year at school.

**Master's Degree**
In order to enroll to a Master's Degree in Italy, you must own a Bachelor's Degree. You can apply to one of Tor Vergata programmes, filling out the online application form at en.uniroma2.it/admissions

3. Admission

Application and admission deadlines are specified into the Calls of each Course (from December to July)

- **NON EU CITIZENS** (not resident in Italy)
  Upon receipt of the Acceptance Letter, you must complete a pre-enrollment procedure at the Italian Embassy/Consulate from March to July and then apply for a Visa. Medicine and Surgery and Pharmacy admitted students, must register in June and July on the portal HYPERLINK "http://www.universitaly.it" www.universitaly.it and take the mandatory test.

- **EU CITIZENS**
  (or non EU students owning a regular Italian Stay Permit)
  Upon receipt of the Acceptance Letter, you have to formally enroll to the Programme, following the procedure on the Delphy System

4. After admission, proceed with the enrollment from March to November. Please only refer to our Offices if you need help in uploading your documents and paying our fees.
Erasmus+

Erasmus+ is the EU Programme for education, training, youth and sport. The programme seeks to enhance the quality and reinforce the European dimension of higher education by encouraging transnational cooperation between Universities, boosting mobility for students and staff, improving transparency and full academic recognition studies and qualifications throughout the EU.

Erasmus+ Mobility for Study

Every year Tor Vergata University supports the mobility of about 1200 students, 700 outbound and 500 inbound. At present, there are more than 600 Erasmus agreements between Tor Vergata University of Rome and European partner universities, offering students a wide number of mobility scholarships for each academic year. Every year University launches the Call between January and February.

Erasmus+ Student traineeship

Erasmus + Student Mobility for Traineeship is the European Union Program that allows students to access training internships at companies, training and research centers of one of the countries participating in the Program, for the development of full-time apprenticeship activities, recognized as an integral part of the student's study plan (after approval of the degree program at the University to which they belong). You can make a mobility for a traineeship abroad, from 2 to 12 months. As a Tor Vergata student, you can apply: Erasmus+ NORTH-SOUTH Traineeship Consortium (internal call); Erasmus+ Student Traineeship (internal call). Other opportunities: UNIPHARMA-GRADUATES Consortium; SEDND Consortium; MVNGO National HEI Consortium.

Every year the Tor Vergata University of Rome launches two Calls: the first one between February and March and the second one in September.

How to apply for Erasmus +:

Erasmus+ allows a number of mobility periods for each study cycle, both for studies and traineeship. A total of 12 months of mobility are allowed for each cycle, bachelor’s degree courses, master’s degree courses, PhDs and a total of 24 months for one-cycle courses.

How to apply for PhD courses

The access to the PhD is managed through a public selection, usually based on qualifications and exams. All requirements are duly provided in the description sheet of the specific PhD that is published on the website of the University. The description sheets also contain details about positions and scholarships available for each PhD.

For the assignment of positions and scholarships candidates will be evaluated according to the exam/s results and the qualifications indicated in the specific PhD sheet; after the evaluation, the scholarships made available by the University will be assigned according to a ranking list. Once all scholarships are assigned, the remaining candidates will only get the position. Restrictions on scholarships only apply if a candidate has already received a PhD scholarship from any Italian University. Finally, candidates can register as Independent Candidates, also called Borsisti di Stato Estero if they have their own source of funding, such as:

• A bank account balance of at least 5.800 euros
• A scholarship funded by the government of the country of origin
• A scholarship funded by the Italian Ministry of foreign affairs
• The written declaration of any institution that wishes to fund the PhD for whatever reason
• An employment contract

The following summary shows the costs of the PhD course that apply to all selected candidates:

<table>
<thead>
<tr>
<th>Year</th>
<th>Competition Fee</th>
<th>Yearly Insurance and Stamp</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>€ 35,00</td>
<td>€ 27,65</td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>Graduation Fee</td>
<td>Yearly Insurance and Stamp</td>
</tr>
<tr>
<td></td>
<td>€ 32,00</td>
<td>€ 27,65</td>
</tr>
</tbody>
</table>

Tot € 149,95

Source: International Relation Unit, Tor Vergata University
Overseas Programme – Outgoing Students
The goal of this program is to allow students of Tor Vergata University of Rome to spend one semester at an extra-European partner university under a cooperation agreement framework for exam purposes. The grants are allocated to different areas of destinations: North America, South America, Asia and Africa. The courses attended abroad must be consistent with the student's course of study. During their stay abroad, students must be properly enrolled and up to date with payments, and they will earn their Degree only after their return to the home University. Bachelor e master/one cycle. Every year the Tor Vergata University of Rome launches the Call in October.

Thesis Abroad
The goal of this grant is to support graduating students wanting to work on their thesis abroad. The call is for Master Degree and one Cycle graduating students who have a thesis proposal approved by a University supervisor. Destinations can be all over the world (grants will be different for Europe and extra European destinations) and chosen by the student. Please note: The total period of the stay abroad must be no less than 15 consecutive days and it must take place after the grant allocation.

Mobility Confap Italy Project
The project aims at facilitating and supporting effective collaboration between the Brazilian association CONFAP and an Italian Network of Universities to further scientific, technological and innovation cooperation, through the mobility between the two countries of PhD students, Master students (Mestrado and Laurea Magistrale students) and post docs. Find here more information: http://www.mci.unibo.it/en
Every year the Tor Vergata University of Rome launches the Call between June and July.

Accomodation
- Campus X Roma: Inside the University campus area, Campus X offers 1,500 beds, 15,000 square metres of green areas and additional services such as: shuttle bus from/to school buildings, Policlinico Tor Vergata and subway; outdoor and indoor sport areas; barbecue, relax, free time and study areas.
- Laziodisco (Italian regional body) provides students with scholarships and accommodation upon a selection based on eligibility criteria.
- Fondazione Rui accommodation awarded to deserving students.
- For a renting a room in a private shared apartment visit: www.spotahome.com or www.uniplaces.com

General Ranking
- 511/520
- Top 100
- less-than-50-years (81/90)
- In Italy 13° among Italian universities

Source: Statistical Office, Erasmus+ Office, Tor Vergata University
Language

University Language Centre (CLA)
The University Language Centre (CLA) supports the teaching and learning of seven foreign languages (English, French, Spanish, German, Russian, Polish and Portuguese, and Chinese). It caters for curricular language courses for the students enrolled at the Tor Vergata University of Rome as well as for those under EU programmes (Erasmus+). Its activities are based on relevant research in second language acquisition and educational technology.

Amongst its main aims, the Language Centre promotes multilingualism by supporting and officially certifying the foreign language competences for personal, academic and professional purposes.

Centre for Italian Language and Culture of the Tor Vergata University of Rome (CLICI)
It promotes the diffusion of Italian language and culture through cultural and educational initiatives (conferences, congresses, courses, etc.) and offers courses in Italian language and culture to both Tor Vergata students and foreigners from all over the world.

CLICI organises extensive and intensive Italian language courses throughout the academic year and also provides courses for international projects. The Centre is also responsible for the training of teachers in synergy with the postgraduate specialisation course “Insegnare Lingua e Cultura Italiana a Stranieri – LCS” (Teaching Italian Language and Culture for Foreigners), organised by Scuola IaD. www.scuolaiad.it/home-clici-eng

Facilities for Tor Vergata community: “Agevola”
Tor Vergata University of Rome, through the “AGEVOLA” initiative, gives the students the possibility of benefitting from more than 250 partnerships, offers and discounts. Check on www.agevola.uniroma2.it all the deals and discounts: restaurants, theatres, concerts, travels, gyms and much more.
CUS Roma Tor Vergata is an amateur sports association for students, administrative and teaching staff that promotes sport within the university. CUS stands for Centro Universitario Sportivo (University Sport Center) and is the territorial emanation of CUSI (Italian Sports University Center) one of the 15 Sports Promotion Organizations recognized by CONI (Italian National Olympic Committee).

CUS Roma Tor Vergata enhances sport as a recognized social right. Collaborate with families, institutions, school facilities. It finances and carries out research and training projects and programs. It produces and disseminates cultural and sports publications. Below is a list of all the available sports at CUS Roma Tor Vergata: Water fitness; Martial arts; Athletics; Caraibic dance; Beach volley; Football; Futsal; Canoe/Kayak; Rowing; Cheerleading; Cycling; Cricket; Dance; Horseback riding; Artistic gymnastics/Floor gymnastics rhythmic; Functional training; Golf; Judo; Karate; Kickboxing; Wrestling/Greco-Roman wrestling; Swimming; Paddle; Gym; Basketball; Volleyball; Pilates; Weightlifting; Boxing; Rugby; Swordplay; Skiing; Surf; Taekwondo; Tennis; Table-tennis; Shooting gallery; Skeet shooting; Archery; Sail; Yoga. For further info on applications, scheduling etc. contact the CUS secretary. info@cusromatorvergata.it

Welcome Weeks
The welcome weeks are dedicated to welcome and orientation activities for all students arriving at the Tor Vergata University of Rome. Our Staff welcomes all the international students in September, supporting them with stay permit and other administrative procedures necessary to study in Italy.
We also provide information about public transportation, health insurance, campus life and other useful students’ services. https://en.uniroma2.it/admissions/welcome-office/

IaD School
The IaD School builds methodological and technological skills through online and/or blended teaching and learning. http://www.scuolaiad.it/

1437 contacts with national and international companies
1201 job and traineeship opportunities
190 recruitment initiatives
10,573 students curricula sent from 2016 to 2019

Sport
CUS Roma Tor Vergata is an amateur sports association for students, administrative and teaching staff that to promotes sport within the university. CUS stands for Centro Universitario Sportivo (University Sport Center) and is the territorial emanation of CUSI (Italian Sports University Center) one of the 15 Sports Promotion Organizations recognized by CONI (Italian National Olympic Committee).
CUS Roma Tor Vergata enhances sport as a recognized social right. Collaborate with families, institutions, school facilities. It finances and carries out research and training projects and programs. It produces and disseminates cultural and sports publications. Below is a list of all the available sports at CUS Roma Tor Vergata: Water fitness; Martial arts; Athletics; Caraibic dance; Beach volley; Football; Futsal; Canoe/Kayak; Rowing; Cheerleading; Cycling; Cricket; Dance; Horseback riding; Artistic gymnastics/Floor gymnastics rhythmic; Functional training; Golf; Judo; Karate; Kickboxing; Wrestling/Greco-Roman wrestling; Swimming; Paddle; Gym; Basketball; Volleyball; Pilates; Weightlifting; Boxing; Rugby; Swordplay; Skiing; Surf; Taekwondo; Tennis; Table-tennis; Shooting gallery; Skeet shooting; Archery; Sail; Yoga. For further info on applications, scheduling etc. contact the CUS secretary. info@cusromatorvergata.it
Botanic garden

Founded in 1982 Tor Vergata’s Botanic Garden offers a centre for germplasm conservation, inaugurated with three greenhouses and scientific laboratories equipped according to the most modern requirements for germplasm conservation.
In 2010 the initiative ‘Adopt a tree’ kicked off and became a great success thanks to a ‘Citizen campaign’ involving schools, university students, staff and local residents. During the first official event open to all, i.e. ‘Spring at the Botanic Garden of Tor Vergata’, about 2,000 people visited the gardens and adopted 400 trees.
http://en.uniroma2.it/about/botanic-garden/

Archeologia per Roma Museum

APR Archeologia per Roma Museum: the first didactic and interactive museum on Archaeology in Rome. It offers an original viewpoint on the whole of the Capital’s Archaeology describing a different relationship between the City Centre and suburban areas. The programme schedules a number of didactic, cultural and leisure activities for both adults and children which are organised by CESTER, a University spin-off. Entry to the Museum is free of charge.

Music

Roma Sinfonietta and the Association of music today organise a season of concerts at the Tor Vergata University of Rome, Auditorium “Ennio Morricone” at the Macroarea of Humanities and Philosophy. Concerts expanded its range, embracing chamber music of the great composers and jazz, contemporary music theatre and traditional music of the Italian regions, the “bel canto” and tango, the music of medieval poems and meetings with today’s composers.
If you like to sing, you can become part of the Choir of Tor Vergata founded in 1997 by Agostino Ziino, Professor of History of Music at the Tor Vergata University of Rome and its Artistic Director. Professors, students and technical staff of the University take part in this project, which is officially recognised as the Ateneo Choir. Since 1999, the Choir has been permanently conducted by Maestro Stefano Cucci. If you are interested, visit the Facebook page of Choir Claudio Casini.
If you like playing music, you can book a music rehearsal space dedicated to music-making at Campus X!

Tor Vergata Sailing Club

It is an amateur sports club where to practice sea sports and sailing sports.

Garden Golf University

Tor Vergata University of Rome is the first Italian University and one of the few worldwide with a golf course.
It is the first illuminated practice field in Rome featuring a golf school.
Services for students with disabilities or Specific Learning Difficulties (SLD): the CARIS Commission

The CARIS Commission provides services to encourage a full and active participation to the academic life of students with disabilities, specific learning difficulties or temporary difficulties. CARIS offers: tutoring services and personal guidance on campus and in the classroom, loan services for text books and computer equipment, software and specific technological aids, sign Language interpreters or stenotypes for hearing impaired students, assistance for entry exams to degree courses, speech therapy available for students with speech impediments and learning disabilities in order to prepare students for exams, counseling services for psychological and emotional needs, total exemption of university fees for students with certified disability higher total and partial exemption of university fees for students with certified disability.

www.caris.uniroma2.it www.facebook.com/CARISuniroma2/

White Code Room

A basic health care centre is available at Tor Vergata for international students. The service is free of charge for all Italian students residing outside Lazio, for all European students who have an ENI card number and for students of any nationality enrolled in the Italian National Health Service (SSN/SSR). Examination rooms are located in the Occupational Health Department of the University Hospital. This facility is organized on a walk-in basis, without any appointment.

For information: whitecode@med.uniroma2.it

Scholarship and Financial Aid

If you are willing to study at Tor Vergata University of Rome or in Italy and are looking for scholarships and study grants, find here a selection of grants and scholarships for Italian and international students offering the chance to study in Italy or work abroad.

The Tor Vergata University of Rome provides its students with over 22 annual scholarships, grants and awards for financial support. Details are available on the website. http://en.uniroma2.it/admissions/scholarships
In order to outline the strategies necessary for the development of a “positive university”, the Tor Vergata University of Rome embraces the United Nations Development Global Strategy implemented in 2015 and the Sustainable Development Goals, thus making it the heart of its own mission and institutional vision. Together with ASviS (the Italian Alliance for Sustainable Development), the University takes a concrete action in offering its important contribution to the challenge set by the Agenda of 2030: to promote a sustainable global development on the economic, social, environmental and institutional level.
Welcome to the University
Who we are
Discover Tor Vergata
Facilities | Students
Research
12 Reasons to Choose Tor Vergata
Italian University System
Study in Italian
Study in English
School of Economics
School of Engineering
School of Medicine and Surgery
School of Mathematical, Physical and Natural Sciences
School of Humanities and Philosophy
School of Law
How to apply
How to apply for PhD courses
Mobility Programmes
Tor Vergata services for you
Cultural, sport and leisure activities
Sustainable Development
How to reach Tor Vergata University