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## Course in: ARCHITECTURE AND DESIGN

### Curriculum: ARCHITECTURE (CODE 5113)

<b>Coordinator:</b> Magliocco Adriano	
Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant based on funds from MIUR/Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 850,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the rooms at the Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), Stradone S. Agostino 37, 16123 Genova
<b>Interview</b>	06/11/2013 - 2.30 p.m. in the rooms at the Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), Stradone S. Agostino 37, 16123 Genova
<b>Exam syllabus</b>	A paper on one of the course research themes. An interview relating to the written test and to the candidate's research themes of interest. Reading and translation of a text in one of the indicated foreign languages.
<b>Further information on how to present qualifications</b>	On the day of the interview, candidates are allowed to present a portfolio, A3 format, containing previous study and research experiences.
<b>Research themes</b>	The research themes that will be possible subjects of the paper are those linked to the teaching objectives of the Doctoral Course, the focus being on the process of project activities and as a consequence their cognitive tools and equipment, in order to study and thoroughly examine the relations between the built environment, on various levels, and the people, analyzing how the social context, political and cultural values influence the choice of projects. The research themes may be organized according to the subjects involved in the Curriculum: architectural technology and technique, architectural composition and design, landscape, urban and representation design.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following addresses: <a href="mailto:gausa@coac.net">gausa@coac.net</a> <a href="mailto:magliocco@arch.unige.it">magliocco@arch.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English, French, Spanish
<b>Further information</b>	CONTACT PERSONS IN ADMINISTRATION: Dott.ssa Brancati 010/2095811 Arch. Ruggiero 010/2095910 e-mail: <a href="mailto:ruggiero@arch.unige.it">ruggiero@arch.unige.it</a>

**Course in: ARCHITECTURE AND DESIGN****Curriculum: DESIGN (CODE 5114)**

<b>Coordinator:</b> Magliocco Adriano	
Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree:</b> 1 (without grant).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "Shipbuilding, aeronautics, helicopter engineering with a high foreign market penetration capacity", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 850,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the rooms at the Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), Stradone S. Agostino 37, 16123 Genova
<b>Interview</b>	06/11/2013 - 2.30 p.m. ore 14:30 in the rooms at the Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), Stradone S. Agostino 37, 16123 Genova
<b>Exam syllabus</b>	A paper on one of the course's research themes. An interview relating to the written test and to the candidate's research themes of interest. Reading and translation of a text in one of the indicated foreign languages.
<b>Further information on how to present qualifications</b>	On the day of the interview, candidates are allowed to present a portfolio, A3 format, containing previous study and research experiences.
<b>Research themes</b>	The research themes that will be possible subjects of the paper are those linked to the teaching objectives of the Doctoral Course, the focus being on the process of project activities and as a consequence their cognitive tools and equipment, in order to study and thoroughly examine the relations between the built environment, on various levels, and the people, analyzing how the social context, political and cultural values influence the choice of projects. The research themes may be organized according to the subjects involved in the Curriculum: product design, graphic and visual design, corporate identity, design for the enhancement of environmental and cultural resources of the territory, product system, strategies and processes, communication, events.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following addresses: <a href="mailto:gausa@coac.net">gausa@coac.net</a> <a href="mailto:fagnoni@arch.unige.it">fagnoni@arch.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English, French, Spanish
<b>Further information</b>	CONTACT PERSONS IN ADMINISTRATION: Dott.ssa Brancati 010/2095811 Arch. Ruggiero 010/2095910 e-mail: <a href="mailto:ruggiero@arch.unige.it">ruggiero@arch.unige.it</a>

**Course in: ARCHITECTURE AND DESIGN****Curriculum: BOATING AND NAUTICAL DESIGN (CODE 5115)**

<b>Coordinator:</b> Magliocco Adriano	
Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "Shipbuilding, aeronautics, helicopter engineering with a high foreign market penetration capacity", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 850,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the rooms at the Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), Stradone S. Agostino 37, 16123 Genova
<b>Interview</b>	06/11/2013 - 2.30 p.m., in the rooms at the Department of Architectural Sciences (Dipartimento di Scienze per l'Architettura - DSA), Stradone S. Agostino 37, 16123 Genova
<b>Exam syllabus</b>	A paper on one of the course's research themes. An interview relating to the written test and to the candidate's research themes of interest. Reading and translation of a text in one of the indicated foreign languages.
<b>Further information on how to present qualifications</b>	On the day of the interview, candidates are allowed to present a portfolio, A3 format, containing previous study and research experiences.
<b>Research themes</b>	The research themes that will be possible subjects of the paper are those linked to the teaching objectives of the Doctoral Course, the focus being on the process of project activities and as a consequence their cognitive tools and equipment, in order to study and thoroughly examine the relations between the built environment, on various levels, and the people, analyzing how the social context, political and cultural values influence the choice of projects. The research themes may be organized according to the subjects involved in the Curriculum: boating design, sustainable products, processes, materials, ergonomics.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following addresses: <a href="mailto:gausa@coac.net">gausa@coac.net</a> <a href="mailto:musio-sale@arch.unige.it">musio-sale@arch.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English, French, Spanish
<b>Further information</b>	CONTACT PERSONS IN ADMINISTRATION: Dott.ssa Brancati 010/2095811 Arch. Ruggiero 010/2095910 e-mail: <a href="mailto:ruggiero@arch.unige.it">ruggiero@arch.unige.it</a>

## Course in: BIOENGINEERING AND ROBOTICS

### Curriculum: ADVANCED ROBOTICS AND ROBOT DESIGN (CODE 5117)

<b>Coordinator:</b> Martinoia Sergio	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 11 – <b>Grants:</b> 9 (*).	
<b>Places in excess available to persons with a foreign degree:</b> 1 (without grant).	
(*1 grant as per Ministerial Decree 198/03 main field of research “Advanced manufacturing systems with an impact not only on tool machinery, but on the ‘Made in Italy’ manufacturing compartments, such as the textile, garment and instrumental machinery industries”, including social security expenses to be paid by the recipient, is €16.500,00	
(* 8 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	<p>Advanced robot control            Robot coordination and cooperation            Sensing            State estimation            Knowledge representation            Motion planning            Real-time scheduling            Design of macro/micro robot systems            Design of sensors and actuators            Underwater, aerial and space robotics            Wheeled and legged robots            Manipulation</p> <p>Specific themes will be presented in a document available at the following addresses:  <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a>  <a href="http://www.iit.it/en/openings/phd-calls/">http://www.iit.it/en/openings/phd-calls/</a></p>
<b>Information on references</b>	<p>Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:  <a href="mailto:phdbiorob@dibris.unige.it">phdbiorob@dibris.unige.it</a>            The name, status and service place of the referees chosen by the candidates must be stated in their applications.</p>
<b>Further information</b>	<p>For information on the research themes relevant to DIBRIS please contact:  <a href="mailto:antonio.sgorbissa@unige.it">antonio.sgorbissa@unige.it</a>            For information on the research themes relevant to IIT please contact:  <a href="mailto:darwin.caldwell@iit.it">darwin.caldwell@iit.it</a>  <a href="mailto:giulio.sandini@iit.it">giulio.sandini@iit.it</a></p>

## **Course in: BIOENGINEERING AND ROBOTICS**

### **Curriculum: BIOENGINEERING AND BIOELECTRONICS (CODE 5119)**

<b>Coordinator:</b> Martinoia Sergio	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 12 - <b>Grants:</b> 8 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*)1 grant as per Ministerial Decree 198/03 main field of research "ICT and electronic components", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*) 2 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*) 3 funded by the University of Cagliari, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 13.638,47	
At the end of the doctoral course, students who received a grant from the University of Cagliari will be awarded a joint qualification from both the University of Cagliari and Genova.	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	<ul style="list-style-type: none"><li>• Biomedical imaging and medical information systems</li><li>• Bioelectronics, biomedical devices and bio-sensors</li><li>• Molecular, cellular and tissue engineering</li><li>• Neuroengineering and neurotechnology</li><li>• Micro and nano-systems in medicine and biology.</li></ul> Specific themes will be presented in a document available at the following addresses: <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a> <a href="http://www.iit.it/en/openings/phd-calls/">http://www.iit.it/en/openings/phd-calls/</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:phdbiorob@dibris.unige.it">phdbiorob@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	For information on the research themes relevant to DIBRIS please contact: <a href="mailto:sergio.martinoia@unige.it">sergio.martinoia@unige.it</a> For information on the research themes relevant to IIT please contact: <a href="mailto:alberto.diaspro@iit.it">alberto.diaspro@iit.it</a> For information on the research themes relevant to the University of Cagliari please contact: <a href="mailto:annalisa.bonfiglio@diee.unica.it">annalisa.bonfiglio@diee.unica.it</a>

## **Course in: BIOENGINEERING AND ROBOTICS**

### **Curriculum: BIONANOTECHNOLOGY (CODE 5120)**

<b>Coordinator:</b> Martinoia Sergio	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 16 – <b>Grants:</b> 13 (*).	
<b>Places in excess available to persons with a foreign degree:</b> 1 (with a Marie Curie Training Network contract)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*) 12 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	<ul style="list-style-type: none"><li>- cells-to chip and cells-to-cells technologies</li><li>- advanced characterization tools and imaging</li><li>- drug-delivery</li><li>- tissue engineering</li><li>- bio materials and smart materials.</li></ul> <p>Specific themes will be presented in a document available at the following addresses: <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a><a href="http://www.iit.it/en/openings/phd-calls/">http://www.iit.it/en/openings/phd-calls/</a></p>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:phdbiorob@dibris.unige.it">phdbiorob@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	For information on the research themes relevant to DIBRIS please contact: <a href="mailto:sergio.martinoia@unige.it">sergio.martinoia@unige.it</a> For information on the research themes relevant to IIT please contact: <a href="mailto:alberto.diaspro@iit.it">alberto.diaspro@iit.it</a>

**Course in: BIOENGINEERING AND ROBOTICS****Curriculum: COGNITIVE ROBOTICS, INTERACTION AND REHABILITATION TECHNOLOGIES  
(CODE 5121)**

<b>Coordinator:</b> Martinoia Sergio	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 14 – <b>Grants:</b> 12 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*) 11 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	Robots learning from examples and experience Remembering and recalling from analogies Associating past and present situations Detecting and recognizing individual events and generalizing from individual experiences Predicting the outcome of actions and acting consequently Explaining their own behaviour; communicating in meaningful and "natural ways" Expressing emotions and acting socially Working in symbiosis with humans in order to measure and improve motor behaviour during rehabilitation therapy Establishing adaptive bidirectional communication with their user  Specific themes will be presented in a document available at the following addresses: <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a> <a href="http://www.iit.it/en/openings/phd-calls/">http://www.iit.it/en/openings/phd-calls/</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:phdbiorob@dibris.unige.it">phdbiorob@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	For information on the research themes relevant to DIBRIS please contact: <a href="mailto:vittorio.sanguineti@unige.it">vittorio.sanguineti@unige.it</a> <a href="mailto:antonio.sgorbissa@unige.it">antonio.sgorbissa@unige.it</a> For information on the research themes relevant to IIT please contact: <a href="mailto:giulio.sandini@iit.it">giulio.sandini@iit.it</a>



**Course in: BIOENGINEERING AND ROBOTICS****Curriculum: HUMANOID ROBOTICS (CODE 5122)**

<b>Coordinator:</b> Martinoia Sergio	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 7 - <b>Grants:</b> 6 (*).	
(*) 6 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	Design, realization, programming and control of anthropomorphic robots Technologies for the next generation of robots based on soft and adaptable materials for sensing, actuation and computation. The goal is to develop robots that on the one hand can learn and adapt from their mistakes, and on the other are robust to work in real-world practical scenarios: e.g., at home, as personal assistants, as well as in industry as co-workers or to intervene in case of natural or man-made disasters.  Specific themes will be presented in a document available at the following addresses: <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a> <a href="http://www.iit.it/en/openings/phd-calls/">http://www.iit.it/en/openings/phd-calls/</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:phdbiorob@dibris.unige.it">phdbiorob@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	For information on the research themes relevant to DIBRIS please contact: <a href="mailto:antonio.sgorbissa@unige.it">antonio.sgorbissa@unige.it</a> For information on the research themes relevant to IIT please contact: <a href="mailto:giorgio.metta@iit.it">giorgio.metta@iit.it</a>

## Course in: BIOTECHNOLOGIES IN TRANSLATIONAL MEDICINE

### Curriculum: BIOIMAGING (CODE 5123)

<b>Coordinator:</b> Cancedda Ranieri Maria	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 2 p.m., Didactic Room (Aula Didattica) (Torre - Tower C – 3rd Floor) – Advanced Biotechnologies Centre (Centro di Biotecnologie Avanzate) Largo R. Benzi, n. 10 – 16132 Genova.
<b>Exam syllabus</b>	The interview will be on the qualifications/publications and research project presented.
<b>Further information on how to present qualifications</b>	All candidates are requested to present a proposal for a research project (2 A4 pages maximum, character size 12) together with their qualifications/publications. The project, which will be discussed during the interview, will be evaluated by the commission together with the qualifications/publications.
<b>Research themes</b>	Molecular Bioimaging. Biomedical Imaging. Computational bioimaging.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator: Prof. Ranieri Cancedda - Dipartimento di Medicina Sperimentale - Tel. 0105558391 - Fax 0105558257 - <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a>  Organising Secretarial Office: Mr. Enrico Zeraschi - Dipartimento di Medicina Sperimentale - Tel. 0105558266 - Fax 0105558216 - <a href="mailto:enrico.zeraschi@unige.it">enrico.zeraschi@unige.it</a>

**Course in: BIOTECHNOLOGIES IN TRANSLATIONAL MEDICINE****Curriculum: CELLULAR AND MOLECULAR BIOTECHNOLOGIES (CODE 5124)**

<b>Coordinator:</b> Cancedda Ranieri Maria	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "Human Health (study and treatment of tumours and degenerative diseases by means of new approaches based on the knowledge of the human genome)", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 2 p.m., Didactic Room (Aula Didattica) (Torre - Tower C – 3rd Floor) – Advanced Biotechnologies Centre (Centro di Biotecnologie Avanzate) Largo R. Benzi, n. 10 – 16132 Genova.
<b>Exam syllabus</b>	The interview will be on the qualifications/publications and research project presented.
<b>Further information on how to present qualifications</b>	All candidates are requested to present a proposal for a research project (2 A4 pages maximum, character size 12) together with their qualifications/publications. The project, which will be discussed during the interview, will be evaluated by the commission together with the qualifications/publications.
<b>Research themes</b>	Diagnostics. Therapeutic treatments. New products for pharmaceutical use. Gene therapy. Cellular therapy. Immunosuppressive therapy. Anticancer therapy.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator: Prof. Ranieri Cancedda - Dipartimento di Medicina Sperimentale - Tel. 0105558391 - Fax 0105558257 - <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a>  Organising Secretarial Office: Mr. Enrico Zeraschi - Dipartimento di Medicina Sperimentale - Tel. 0105558266 - Fax 0105558216 - <a href="mailto:enrico.zeraschi@unige.it">enrico.zeraschi@unige.it</a>

**Course in: BIOTECHNOLOGIES IN TRANSLATIONAL MEDICINE****Curriculum: REGENERATIVE MEDICINE AND TISSUE ENGINEERING (CODE 5125)**

<b>Coordinator:</b> Cancedda Ranieri Maria	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "New applications in the biomedical industry", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant based on funds from MIUR / Department of Experimental Medicine (Dipartimento di Medicina Sperimentale DIMES), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 2 p.m., Didactic Room (Aula Didattica) (Torre - Tower C – 3rd Floor) – Advanced Biotechnologies Centre (Centro di Biotecnologie Avanzate) Largo R. Benzi, n. 10 – 16132 Genova.
<b>Exam syllabus</b>	The interview will be on the qualifications/publications and research project presented.
<b>Further information on how to present qualifications</b>	All candidates are requested to present a proposal for a research project (2 A4 pages maximum, character size 12) together with their qualifications/publications. The project, which will be discussed during the interview, will be evaluated by the commission together with the qualifications/publications.
<b>Research themes</b>	Cellular therapy. Tissue engineering. Development of biocompatible biomaterials, biodegradable and capable of integrating molecules and cells. Delivery of growth factors, cytokines and other pharmacologically active molecules. Immunology and biology of transplants. Immunotherapy. Gene therapy.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator: Prof. Ranieri Cancedda - Dipartimento di Medicina Sperimentale - Tel. 0105558391 - Fax 0105558257 - <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a>  Organising Secretarial Office: Mr. Enrico Zeraschi - Dipartimento di Medicina Sperimentale - Tel. 0105558266 - Fax 0105558216 - <a href="mailto:enrico.zeraschi@unige.it">enrico.zeraschi@unige.it</a>

**Course in: BIOTECHNOLOGIES IN TRANSLATIONAL MEDICINE****Curriculum: TRANSLATIONAL MEDICINE (CODE 5126)**

<b>Coordinator:</b> Cancedda Ranieri Maria	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 2 p.m., Didactic Room (Aula Didattica) (Torre - Tower C – 3rd Floor) – Advanced Biotechnologies Centre (Centro di Biotecnologie Avanzate) Largo R. Benzi, n. 10 – 16132 Genova.
<b>Exam syllabus</b>	The interview will be on the qualifications/publications and research project presented.
<b>Further information on how to present qualifications</b>	All candidates are requested to present a proposal for a research project (2 A4 pages maximum, character size 12) together with their qualifications/publications. The project, which will be discussed during the interview, will be evaluated by the commission together with the qualifications/publications.
<b>Research themes</b>	Advanced therapies in: i) Vascular surgery; ii) Cardiac surgery; iii) Plastic and reconstructive surgery; iv) ophthalmology; v) Advanced diagnostics.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator: Prof. Ranieri Cancedda - Dipartimento di Medicina Sperimentale - Tel. 0105558391 - Fax 0105558257 - <a href="mailto:ranieri.cancedda@unige.it">ranieri.cancedda@unige.it</a>  Organising Secretarial Office: Mr. Enrico Zeraschi - Dipartimento di Medicina Sperimentale - Tel. 0105558266 - Fax 0105558216 - <a href="mailto:enrico.zeraschi@unige.it">enrico.zeraschi@unige.it</a>

## Course in: DIGITAL HUMANITIES

### Curriculum: ARTS, PERFORMING ARTS AND MULTIMEDIA TECHNOLOGIES (CODE 5127)

<b>Coordinator:</b> Poli Sergio	
Department of modern languages and cultures (Dipartimento di Lingue e culture moderne)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 650,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 10 a.m. in the Aula Magna Humanities School (Scuola Umanistica) via Balbi 2 – 16126 Genova
<b>Interview</b>	11/11/2013 - 10 a.m. at the Department of Italian and Romance languages, Classical Studies, Arts and Performing Arts (Dipartimento di Italianistica, romanistica, antichistica, arti e spettacolo – DIRAAS), Via Balbi 4 16126 Genova
<b>Exam syllabus</b>	Written test: the titles of the written papers will be chosen by the candidate from a series of three assigned topics, one for each theme listed in the “research themes”. These themes will be extracted from a set of nine titles (three for each thematic typology) prepared by the examining Commission.
<b>Further information on how to present qualifications</b>	Candidates may submit their qualifications/publications and documentation in any of the following languages: Italian, English, French, German, Spanish.
<b>Research themes</b>	<ol style="list-style-type: none"> <li>1. Application of information and communication technologies to the arts and performing arts (Design and development of multimedia and online products, Virtual Museums, Web 2.0, databases, lists, etc.);</li> <li>2. Application of information and communication technologies to the figurative arts and multimedia creations for performances (creation of research instruments; platforms for editions of texts and films; design and development of multimedia and online products at both scientific and popular levels, etc.);</li> <li>3. Critical reflection on the impact of information and communication technologies on paradigms of use and traditional study of sources for History of Art, cinema and theatre; analysis of the impact of information and communication technologies on protocols on making known our Cultural Heritage.</li> </ol>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:luisa.zito@unige.it">luisa.zito@unige.it</a> <a href="mailto:migma@unige.it">migma@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	Students must show their knowledge of at least one of the foreign languages from among those indicated previously; foreign candidates must show their knowledge of Italian.
<b>Further information</b>	Luisa ZITO ( <a href="mailto:luisa.zito@unige.it">luisa.zito@unige.it</a> )

**Course in: DIGITAL HUMANITIES****Curriculum: LANGUAGES, CULTURES AND DIGITAL TECHNOLOGIES (CODE 5128)**

<b>Coordinator:</b> Poli Sergio	
Department of modern languages and cultures (Dipartimento di Lingue e culture moderne)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 4 (without grant).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 650,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 9.30 a.m. at the Department of modern languages and cultures (Dipartimento di Lingue e culture moderne), in the Languages Library (Biblioteca Lingue), Piazza S. Sabina, 2 - 16124 Genova
<b>Interview</b>	11/11/2013 - 9.30 a.m. at the Department of modern languages and cultures (Dipartimento di Lingue e culture moderne), French Studies Section (Sezione di Francesistica), Piazza S. Sabina, 2 - 16124 Genova
<b>Exam syllabus</b>	Written test: the titles of the written papers will be chosen by the candidate from a series of three assigned topics, one for each theme listed in the "research themes". These themes will be extracted from a set of nine titles (three for each thematic typology) prepared by the examining Commission.
<b>Further information on how to present qualifications</b>	Candidates may submit their qualifications/publications and documentation in any of the following languages: Italian, English, French, German, Spanish, Swedish Documentation in other language needs to be translated into Italian, English or French.
<b>Research themes</b>	1. Application of information and communication technologies to languages (distance teaching of languages; research in the linguistic and literary fields; design and development of multimedia and online products, etc.); 2. Application of information and communication technologies to literature and culture (creation of research instruments; construction of specific databases; design and development of multimedia and online products at both scientific and popular levels, etc.); 3. Critical reflection on the impact of information and communication technologies on public and social structures, on teaching methodologies and on learning and working protocols.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:luisa.zito@unige.it">luisa.zito@unige.it</a> <a href="mailto:sergio.poli@lingue.unige.it">sergio.poli@lingue.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	Students must show their knowledge of at least one of the foreign languages from among those indicated previously; foreign candidates must show their knowledge of Italian.
<b>Further information</b>	Teacher or contact person in administration: Luisa ZITO ( <a href="mailto:luisa.zito@unige.it">luisa.zito@unige.it</a> )

## Course in: LAW STUDIES

### Curriculum: CIVIL, CORPORATE AND INTERNATIONAL LAW (CODE 5129)

<b>Coordinator:</b> Guastini Riccardo	
Department of Law Studies (Dipartimento di Giurisprudenza)	
<b>Places:</b> 6 - <b>Grants:</b> 3 (*).	
<b>Places in excess available to persons with a foreign degree:</b> 2 (without grant).	
(*) 3 from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 555,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	04/11/2013 - 2 p.m. at the Department of Law Studies (Dipartimento di Giurisprudenza), International Law Section (Sezione di Diritto internazionale), via Balbi 22 - 7/B, 16126 Genova.
<b>Interview</b>	05/11/2013 - 9 a.m. at the Department of Law Studies (Dipartimento di Giurisprudenza), International Law Section (Sezione di Diritto internazionale), via Balbi 22 - 7/B, 16126 Genova.
<b>Exam syllabus</b>	The written test will consist in answering one or more questions concerning civil law or corporate law or international law, the candidate may choose, with particular focus on the research themes indicated below. The interview will deal with the candidates' qualifications/publications and research project.
<b>Further information on how to present qualifications</b>	The application and attached documentation may be compiled in Italian, English, French or Spanish.
<b>Research themes</b>	Within the doctoral course in civil, corporate and international law, three research themes are taken into account, which in essence correspond to the disciplinary "areas" (and corresponding "competences") that are inherent to them. These themes moreover are part of a unitary framework, characterised by the sharing of the same sources, by a multilevel protection system and by the multidisciplinary of the approach. The first research theme concerns the evolution of the reference frame of contemporary private law, moving from the new order of its sources. With this outlook, the evolutionary lines of the system will be analysed with special reference to two classical themes of civil law, i.e. the contract and (civil) liability. The second research theme concerns some profiles of corporate governance, in particular in quoted companies, and is characterised by an interdisciplinary methodological approach. The subjects dealt with will, as a matter of fact, be studied from both a juridical and economic point of view but ample room will be left to deal with the main European systems and the American legal system. Finally, the third research theme deals with some of the most significant recent developments in International and Community law, analysed from the point of view of the widening of rights guaranteed to individuals and their "effective" jurisdictional protection (at an international, community and domestic level).
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:paola.ivaldi@unige.it">paola.ivaldi@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	a) English, as well as b) either French or Spanish.
<b>Further information</b>	Contact person in administration: Dott.ssa M. Stefania Lavezzo e-mail: <a href="mailto:55563@unige.it">55563@unige.it</a>



**Course in: LAW STUDIES****Curriculum: CRIMINAL LAW AND PROCEDURE (CODE 5130)**

<b>Coordinator:</b> Guastini Riccardo	
Department of Law Studies (Dipartimento di Giurisprudenza)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 555,00 €
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	08/11/2013 - 9 a.m. at the Department of Law Studies (Dipartimento di Giurisprudenza), Criminal Section (Sezione Penalistica), via Balbi 30/10, 16126 Genova
<b>Interview</b>	12/11/2013 - 4 p.m. at the Department of Law Studies (Dipartimento di Giurisprudenza), Criminal Section (Sezione Penalistica), via Balbi 30/10, 16126 Genova
<b>Exam syllabus</b>	a) Issues concerning the general part and the special part of Criminal Law; b) Issues concerning criminal trials, also in reference to the European, International and comparative perspective; c) Themes linked to penitentiary legislation in force with special reference to the latest reforms as well.
<b>Research themes</b>	<p>Criminal Law: the reform of the criminal code and the harmonization of European criminal laws, with a view to the unification and strengthening of international instruments of cooperation; the reform of the sanctioning systems; forms of transnational criminality; the criminal defence of financial markets; corporate offences; analysis of the themes concerning complicity of people; the regulation of non-EU immigration and the crimes linked to clandestine immigration; the regulation of the circulation of citizens who belong to the European Union; crimes against the public administration.</p> <p>Penitentiary law. Analysis of the numerous innovations recently added to the legal order and of those in progress: in particular, of the legislative novelties aimed at dealing with prison overcrowding (law n. 9 of 17/02/2012 the so-called 'empty jails-two' law - 'svuotacarceri-bis', taking into account the possible changes accepted in the law of enactment).</p> <p>Criminal procedure: Themes which are the subject-matter of recent legislative interventions, in parallel with the evolution of jurisprudential orientations. In particular the following are pointed out: the revision of the "internal" penal judgement following the investigation of the European Court of Human Rights of the violation of the ECHR, in the light of the constitutional judgement n. 113 of 7 April 2011; law projects for the reform of the system of penal impugment and those in the field of wire-tapping, as well as that aimed at introducing the adjournment of the trial with probation (messa alla prova), up to now present only in the juvenile system. Methodologically, systematic reconstructive lines are set against the fragmentary nature of the reforms.</p> <p>Comparative Procedural Criminal Law mainly focussing on the American trial system.</p> <p>International Procedural Criminal Law: Evolution of international criminal justice from the end of the First World War up to the present. The International Criminal Court and the legislation for internal adaptation. International cooperation tendencies at European level. Transitional justice.</p>
<b>Information on references</b>	Reference letters will not contribute to the final score.
<b>Foreign languages</b>	English, French, German
<b>Further information</b>	Contact person in administration: Dott.ssa M. Stefania Lavezzo e-mail: <a href="mailto:55563@unige.it">55563@unige.it</a>

**Course in: LAW STUDIES****Curriculum: PHILOSOPHY OF LAW AND LEGAL BIO-ETHICS (CODE 5131)**

<b>Coordinator:</b> Guastini Riccardo	
Department of Law Studies (Dipartimento di Giurisprudenza)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 555,00 €
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	Candidates must present a well-organized research project. The following must be produced in the curriculum and attached documentation: a) qualification b) any post-graduate qualifications; c) any publications; d) any research experiences and activities and further education/training.
<b>Research themes</b>	Philosophy of law - Legal reasoning - Theories of legal interpretation - Theories of legal sources - General theory of law and state - Constitutional interpretation - Logic and legal reasoning - Legal Enlightenment and codification ideologies - Philosophies of punishment - Epistemology and theories of legal science - Natural law and legal positivism - Feminist theories of law - Theories of legal norms and legal systems - Theory of legal language - Equality, poverty, welfare state, regulation and deregulation - History and theory of rights - Law, constitutions, constitutionalism - History and theory of legal dogmatics - Legal bioethics.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:guastini@unige.it">guastini@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English, French, Spanish, Portuguese
<b>Further information</b>	Course Coordinator: Prof. Riccardo Guastini <a href="mailto:guastini@unige.it">guastini@unige.it</a>  Contact person in administration: Dr. Stefania Vircillo <a href="mailto:stevirci@giuri.unige.it">stevirci@giuri.unige.it</a>

**Course in: LAW STUDIES****Curriculum: COMPARATIVE CONSTITUTIONAL SYSTEMS (CODE 5132)**

<b>Coordinator:</b> Guastini Riccardo	
Department of Law Studies (Dipartimento di Giurisprudenza)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 2 (without grant).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 555,00 €
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	12/11/2013 – 3 p.m. at the Department of Law Studies (Dipartimento di Giurisprudenza), via Balbi 30, 16126 Genova
<b>Exam syllabus</b>	The interview aims at evaluating the candidates' aptitude for research and will be based on a research project. The latter must be presented with the candidates' application, clearly indicating: the scientific starting point, a basic bibliography, the organization of the thematic profiles they intend to examine.
<b>Further information on how to present qualifications</b>	The following must be produced in the curriculum and attached documentation: a) degree mark; b) the dissertation title of the specialist or "magistrale" degree (3+2 or 5 year degree course); c) any post graduate study qualifications coherent with the research themes of the doctoral course; d) any research experiences and research activities and training abroad that are coherent with the research themes of the doctoral course; e) the level of language knowledge. Candidates' whose qualifications/publications and research project are not coherent with the research themes of the doctoral course will not be admitted to the interview.
<b>Research themes</b>	a) Evolution of the rule of law and system of sources in comparative law b) Evolution of property rights (title) in comparative law c) Strengthening process the democratic State in recent democracies d) Supranational protection system of fundamental rights e) Safeguarding and promotion of cultural diversities, the influence of multiculturalism on codification and legal reasoning on court decisions f) Evolution of federalism and regionalism in comparative law
<b>Information on references</b>	Reference letters will not contribute to the final score.
<b>Foreign languages</b>	Knowledge of one of the following languages: English, French, Spanish
<b>Further information</b>	Contact person in administration: Dott.ssa M. Stefania Lavezzo e-mail: <a href="mailto:55563@unige.it">55563@unige.it</a>

**Course in: ECONOMICS (CODE 5133)**

<b>Coordinator:</b> Mazzoli Marco	
Department of Economics (Dipartimento di Economia)	
<b>Places:</b> 12 - <b>Grants:</b> 6 (*).	
(*) 6 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 650,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 2 p.m., Teledidactics room (aula di Teledidattica), first floor, Department of Economics (Dipartimento di Economia – DIEC), Via Vivaldi 5 – 16126 Genova
<b>Interview</b>	06/11/2013 - 2 p.m., Teledidactics room (aula di Teledidattica), first floor, Department of Economics (Dipartimento di Economia – DIEC), Via Vivaldi 5 – 16126 Genova
<b>Exam syllabus</b>	For the written test: theme questions, chosen by the candidates, prepared by the examining commission, on some of the research themes included in the learning objectives of the doctoral course. For the interview: a discussion on the research interests and/or research programme of each single candidate, also on any of the attached qualifications/publications. Knowledge of English is compulsory in order to be admitted to the Doctoral Course in Economics, thus the examining commission will test candidates' English by means of a reading and translation test.
<b>Further information on how to present qualifications</b>	Candidates may present, together with their applications, any publications in scientific journals on themes which are relevant to the doctoral course.
<b>Research themes</b>	Interpretative models of financial instability and of the economic cycle for political economy decisions; fiscal, budget and regulation policies concerning different territorial levels; analysis of the quality of accounting data and its impact on financial markets; theoretical and econometric models for the analysis of financial markets and for the management of portfolios; regulation policies of "public utilities"; analysis of internationalization processes of enterprises; market system and role of competition in network industries; analysis of market regulation instruments; economic role of transport facilities; methods for the evaluation of efficiency and equity in healthcare; coordination issues among the different welfare systems in countries of the European Union.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:dottoratodiec@economia.unige.it">dottoratodiec@economia.unige.it</a> and copy to the personal email address of the Coordinator of the Doctoral Course: <a href="mailto:Marco.Mazzoli@unige.it">Marco.Mazzoli@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof Marco Mazzoli Department of Economics (Dipartimento di Economia) Via Vivaldi, 5 16126 Genova GE e-mail: <a href="mailto:Marco.Mazzoli@unige.it">Marco.Mazzoli@unige.it</a> ; <a href="mailto:mazzoli@economia.unige.it">mazzoli@economia.unige.it</a>  Contact person in administration Ms Viviana Pastorino, Telephone: 0102095232 <a href="mailto:dottoratodiec@economia.unige.it">dottoratodiec@economia.unige.it</a>

## Course in: PHYSICS (CODE 5134)

<b>Coordinator:</b> Ridolfi Giovanni	
Department of Physics (Dipartimento di Fisica - DIFI)	
<b>Places:</b> 13 - <b>Grants:</b> 7 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 2 (without grant).	
(*) 4 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant based on funds from MIUR/ Department of Physics (Dipartimento di Fisica - DIFI), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "ICT and electronic components", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant funded by the National Institute of Nuclear Physics (Istituto Nazionale di Fisica Nucleare - INFN), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	05/11/2013 - 9 a.m. at the Department of Physics (Dipartimento di Fisica - DIFI), via Dodecaneso 33 - 16146 Genova. It is possible to use a computer connection. Please contact the Coordinator Prof. G. Ridolfi 7 days before the date of the interview. The interviews may continue beyond the date indicated: the commission will provide a calendar.
<b>Exam syllabus</b>	The interview will have the dual function of evaluating the candidates' basic level of preparation and their aptitude for research also in relation to the activities carried out in the Department.
<b>Further information on how to present qualifications</b>	Candidates must present a short (maximum 1 page) research project or a description of their research interests.
<b>Research themes</b>	Theoretical and experimental physics of fundamental interactions; string and field theory; theoretical and experimental theory of the nucleus and hadrons; physics of star particles; research for gravitational waves; physics applied to the environment, to the cultural heritage, to medicine; theoretical and experimental physics of condensed matter; surface physics; physics and applications of superconductive materials; nanosystems physics; science of materials and nanotechnologies applied to industry and medicine; biophysics; history of physics.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at both of the following addresses: <a href="mailto:martinoli@fisica.unige.it">martinoli@fisica.unige.it</a> <a href="mailto:giovanni.ridolfi@ge.infn.it">giovanni.ridolfi@ge.infn.it</a> with "PhD XXIX reference letter" in reference The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Candidates can send an email to the following email addresses for information: <a href="mailto:giovanni.ridolfi@ge.infn.it">giovanni.ridolfi@ge.infn.it</a> or to <a href="mailto:marco.pallavicini@ge.infn.it">marco.pallavicini@ge.infn.it</a>

## Course in: CLINICAL AND EXPERIMENTAL IMMUNOLOGY (CODE 5135)

<b>Coordinator:</b> Mingari Maria Cristina	
Excellence Centre for the research and study of molecular communication mechanisms between cells: from basic research to the clinic (Centro di Eccellenza per lo studio dei meccanismi molecolari di comunicazione tra cellule: dalla ricerca di base alla clinica - CEBR)	
<b>Places:</b> 5 - <b>Grants:</b> 5 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "Human Health – study and treatment of tumours and degenerative diseases by means of new approaches based on the knowledge of the human genome", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 3 grants funded by the Giannina Gaslini Institute, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	12/11/2013 - 9 a.m. in the meeting room of the Excellence Centre for the research and study of molecular communication mechanisms between cells: from basic research to the clinic (Centro di Eccellenza per lo studio dei meccanismi molecolari di comunicazione tra cellule: dalla ricerca di base alla clinica - CEBR), first floor, Viale Benedetto XV - 16132 Genova
<b>Interview</b>	12/11/2013 - 2 p.m. in the meeting room of the Excellence Centre for the research and study of molecular communication mechanisms between cells: from basic research to the clinic (Centro di Eccellenza per lo studio dei meccanismi molecolari di comunicazione tra cellule: dalla ricerca di base alla clinica - CEBR), first floor, Viale Benedetto XV - 16132 Genova
<b>Exam syllabus</b>	Written test: a paper on a topic chosen among those included in the research lines of the Doctoral course. The interview will concern the candidates' qualifications/publications and a research project. English knowledge will be tested with the reading and translation of a passage from a scientific article.
<b>Research themes</b>	Basic immunology and pathoimmunology, immune-inflammatory pathologies in adults and children. Immunology of tumours.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following addresses: <a href="mailto:maria.cristina.mingari@unige.it">maria.cristina.mingari@unige.it</a> and the contact person in administration, Dott.ssa Daniela Guelfo <a href="mailto:daniela.guelfo@unige.it">daniela.guelfo@unige.it</a> . The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact person in the Secretarial Office of the CEBR: Dr.ssa Daniela Guelfo Tel. 010/3533037 <a href="mailto:daniela.guelfo@unige.it">daniela.guelfo@unige.it</a>

## Course in: COMPUTER SCIENCE AND ENGINEERING (CODE 5136)

<b>Coordinator:</b> De Florian Leila	
Mathematical, Physics and Natural sciences Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento interscuola di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 12 - <b>Grants:</b> 6 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (with a Marie Curie grant).	
(*) 4 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "ICT and electronic components", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant funded by the Department of IT, Bioengineering, Robotics and Systems Engineering (Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi - DIBRIS): Distributed systems and smart sensor networks to improve tracking and logistic operations in a floricultural environment as Internet of Things (IoT) applications", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47.	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	Suggestions on how to organize research projects are available on the Computer Science Doctoral course Web page at the following address <a href="http://www.disi.unige.it/dottorato">http://www.disi.unige.it/dottorato</a> (section: Instructions for applicants).
<b>Research themes</b>	The research lines of the Doctoral Course in Computer Science concern the main sectors of Computer Science, and in particular comprise the following areas: automated learning, databases and information technology systems, image processing, graphics and geometric modelling, artificial intelligence, software engineering, man-machine interaction, programming languages, parallel and distributed systems, safety, computational vision.  The research themes available are described on the Web page: <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a> .  Research projects which do not refer to the specific themes listed above are acceptable as long as they are within the research lines of the Doctoral course stated above.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:phd.compsci@dibris.unige.it">phd.compsci@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.  A model of a reference letter is available on the Computer Science and Engineering Doctoral Web page at the following address: <a href="http://www.disi.unige.it/dottorato">http://www.disi.unige.it/dottorato</a> (section: Instructions for applicants)
<b>Further information</b>	Coordinator of the Doctoral Course in Computer Science:  Prof. Leila De Florian DIBRIS - Università di Genova Via Dodecaneso 35 - 16146 Genova Telephone: +39 (010) 3536704 Email address: <a href="mailto:leila.defloriani@unige.it">leila.defloriani@unige.it</a>  Contact person in administration: Ms Anna Vezzosi DIBRIS - Università di Genova Via Dodecaneso 35 - 16146 Genova Telephone: +39 (010) 3536627 Email address: <a href="mailto:anna.vezzosi@unige.it">anna.vezzosi@unige.it</a>

## Course in: CIVIL, CHEMICAL AND ENVIRONMENTAL ENGINEERING

### Curriculum: FLUID DYNAMICS AND ENVIRONMENTAL ENGINEERING (CODE 5137)

<b>Coordinator:</b> Vittori Giovanna	
Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria civile, chimica e ambientale - DICCA)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	07/11/2013 - 3 p.m. at the Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria civile, chimica e ambientale - DICCA), via Montallegro 1 - 16145 Genova
<b>Exam syllabus</b>	The interview will be an in-depth scientific discussion of the candidate's research project, Curriculum and on his/her qualifications/publications. On request, the interview may also be done using computers by contacting the Coordinator of the Doctoral Course Prof. Giovanna Vittori ( <a href="mailto:vittori@dicca.unige.it">vittori@dicca.unige.it</a> ) at least 15 days before the evaluation.
<b>Research themes</b>	A) Fundamentals of fluid dynamics: Analysis and modelling of turbulence; Control and optimization of fluid systems; Dynamics of vorticity and propelling thrust generated by an oscillating wing profile; Fluid-structure interaction for the study of innovative systems for the production of energy (energy harvesting); Mixing phenomena and Lagrangian dynamics in fluids. B) Hydrodynamics and morphodynamics of water flows, coasts, estuaries and lagoons: Hydrodynamics and morphodynamics of estuaries and tidal environments (canals, shallow waters and sandbanks); Morphodynamics of the interwoven riverbeds; Modelling of mobile bottom currents; Formation of large scale mounds of the sea floor associated with sea motions; Models of coastal circulation and of wave motion in open sea and close to the coast; Dynamics of turbidity currents. Numeric weather and sea models (atmosphere, waves and circulation). C) Hydrology and management of water resources: understanding, monitoring and forecasting extreme hydrological phenomena (floods and drought; extension, frequency and intensity; estimate of data uncertainty and assimilation); Urban hydrology (sustainable drainage; restoring natural processes; washing out of surfaces); Management of water resources; Hydraulic constructions and plants; Effects of climatic variability and changes; Water and ecosystems (soil-plant-atmosphere interaction; eco-hydraulics; water and food). D) Biological fluid dynamics: Eye fluid dynamics, Fluid dynamics of the circulatory system, Bio-mimetic control and fluid-structure interactions. E) Geomatics: GNSS satellite measurements for meteorology, Monitoring of the evolution of water courses, coastlines, estuaries, lagoons and of landslides; (web)GIS and Geodatabase for the analysis of the environment and the territory.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:vittori@dicca.unige.it">vittori@dicca.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English (foreign candidates must also prove their knowledge of Italian)
<b>Further information</b>	Prof. Giovanna Vittori <a href="mailto:vittori@dicca.unige.it">vittori@dicca.unige.it</a>



**Course in: CIVIL, CHEMICAL AND ENVIRONMENTAL ENGINEERING****Curriculum: CHEMICAL ENGINEERING, MATERIALS AND PROCESSES (CODE 5138)**

<b>Coordinator:</b> Vittori Giovanna	
Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria civile, chimica e ambientale - DICCA)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*)1 grant as per Ministerial Decree 198/03 main fields of research: – “Energy saving and distributed micro-generation”, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	07/11/2013 - 3 p.m. at the Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria civile, chimica e ambientale - DICCA), via all'Opera Pia 15 - 16145 Genova
<b>Exam syllabus</b>	The interview will be an in-depth scientific discussion of the candidate's research project, Curriculum and on his/her qualifications/publications. On request, the interview may also be done using computers by contacting Prof. Attilio Converti (converti@unige.it) at least 15 days before the evaluation.
<b>Research themes</b>	A) Analysis and control of chemical processes with a low environmental impact A1) Analysis and simulation of innovative systems of energy production A2) Enhanced biomass energy A3) Carbon capture, transport and storage A4) Oxidation of metals and alloys of technological interest B) Plants and bioprocesses B1) Eco-sustainable production of industrial compounds via biotechnology B2) Thermodynamics and bioenergetics of bioprocesses B3) Biotechnological reduction of pollutants B4) Enhancement of foodstuff residues and biomasses for the production of food compounds B5) Rheology and conservation of foodstuffs C) Reliability and safety of processing plants C1) Modelling and mitigation of dispersion phenomena, emissions, fires and explosions C2) Quantitative analysis of the environmental and accidental risk C3) Human factor and prevention of accidents C4) Movement and transport of dangerous substances C5) Intrinsic safety D) Materials engineering D1) Ceramic, binding and composite materials engineering for the building industry D2) Bi-dimensional and interface systems; surface wetting D3) Engineering of biologic fabrics and bio-mimetic materials D4) Characterization and properties of materials, durability and re-utilization D5) Electrochemical technologies for the environment, energy and durability of materials E) Product sustainability E1) Analysis of the life-cycle of products and services E2) EPD development E3) Carbon strategy, processes and products for the reduction of CO2 and CDM processes.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof Attilio Converti ( <a href="mailto:converti@unige.it">converti@unige.it</a> ). The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English (foreign candidates must also prove their knowledge of Italian)
<b>Further information</b>	Prof: Attilio Converti <a href="mailto:converti@unige.it">converti@unige.it</a>

**Course in: CIVIL, CHEMICAL AND ENVIRONMENTAL ENGINEERING Curriculum: STRUCTURES, MATERIALS AND GEOTECHNICS (CODE 5139)**

<b>Coordinator:</b> Vittori Giovanna	
Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria civile, chimica e ambientale - DICCA)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 2 p.m. at the Department of Civil, Chemical and Environmental Engineering (Dipartimento di Ingegneria civile, chimica e ambientale - DICCA), via Montallegro 1 - 16145 Genova
<b>Exam syllabus</b>	The interview will be an in-depth scientific discussion of the candidate's research project, Curriculum and on his/her qualifications/publications. On request, the interview may also be done using computers by contacting Prof. Roberta Massabò ( <a href="mailto:Roberta.Massabo@unige.it">Roberta.Massabo@unige.it</a> ) at least 15 days before the evaluation.
<b>Research themes</b>	A) Classical themes of structural and geotechnical engineering A1) The mechanics of solids, structures and soils; A2) The dynamics of structures; A3) The mechanics of constructions in reinforced-concrete, steel, brickwork, wood and earth; A4) The planning, safeguarding and consolidation of constructions; B) Specialist themes B1) The mechanics of composite and advanced materials B2) The mechanics of masonry B3) Seismic engineering B4) Wind engineering B5) Engineering of foundations C) Themes characterized by strong transversal ties with the lines of the other Curricula/Doctoral Research Courses in the University of Genova C1) Materials C2) Biomechanics C3) Seismology and Climatology C4) The risk associated with natural events C5) Aerodynamics and experimental methods in wind galleries C6) The production of wind energy C7) The monitoring, identification and control of structures; C8) The stability of slopes and triggering mechanisms and propagation of landslides.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Roberta Massabò ( <a href="mailto:Roberta.Massabo@unige.it">Roberta.Massabo@unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English (foreign candidates must also prove their knowledge of Italian)
<b>Further information</b>	Prof. Roberta Massabò ( <a href="mailto:Roberta.Massabo@unige.it">Roberta.Massabo@unige.it</a> )

## Course in: SYSTEMS ENGINEERING

### Curriculum: SYSTEMS ANALYSIS AND OPTIMIZATION (CODE 5140)

<b>Coordinator:</b> Sacone Simona	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 5 - <b>Grants:</b> 3 (*).	
(*) 2 grants as per Ministerial Decree 198/03, main fields of research - “Energy saving and distributed micro-generation” - “Advanced transport and logistics, mobility information on people and goods” the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant funded by Ansaldo STS S.p.A., the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	12/11/2013 - 10 a.m. at the University Campus of Savona (Campus Universitario Savona), Palazzina Lagorio, Via Magliotto 2 - 17100 Savona
<b>Exam syllabus</b>	The comparative assessment procedure consists in the evaluation of qualifications/publications and an interview on theoretical and/or practical contents concerning the research themes presented below and the candidates’ research activities.
<b>Further information on how to present qualifications</b>	A summary of the qualifications/publications presented and attached to the application can be sent via email to the following address: <a href="mailto:dottorato.sistemi@unige.it">dottorato.sistemi@unige.it</a>
<b>Research themes</b>	The research themes are listed at the following address <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:Phd.syseng@dibris.unige.it">Phd.syseng@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator of the Doctoral Course in Systems Engineering: Prof. Simona Sacone DIBRIS – Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi Via Opera Pia 13 - 16145 Genova Phone: +39 (010) 3536551 Email: <a href="mailto:simona.sacone@unige.it">simona.sacone@unige.it</a>

**Course in: SYSTEMS ENGINEERING****Curriculum: SYSTEMS MONITORING (CODE 5141)**

<b>Coordinator:</b> Sacone Simona	
Polytechnic Section of the Department of IT, Bioengineering, Robotics and Systems Engineering (Sezione Politecnica del Dipartimento di Informatica, bioingegneria, robotica e ingegneria dei sistemi - DIBRIS)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants funded by the CIMA Foundation (Fondazione CIMA), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	11/11/2013 - 10 a.m. at the University Campus of Savona (Campus Universitario Savona), Palazzina Lagorio, Via Magliotto 2 - 17100 Savona
<b>Exam syllabus</b>	The comparative assessment procedure consists in the evaluation of qualifications/publications and an interview on theoretical and/or practical contents concerning the research themes presented below and the candidates' research activities.
<b>Further information on how to present qualifications</b>	A summary of the qualifications/publications presented and attached to the application can be sent via email to the following address: <a href="mailto:dottorato.sistemi@unige.it">dottorato.sistemi@unige.it</a>
<b>Research themes</b>	The research themes are listed at the following address <a href="http://www.dibris.unige.it/dottorati">http://www.dibris.unige.it/dottorati</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:Phd.syseng@dibris.unige.it">Phd.syseng@dibris.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator of the Doctoral Course in Systems Engineering: Prof.ssa Simona Sacone DIBRIS – Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi Via Opera Pia 13 - 16145 Genova Phone: +39 (010) 3536551 Email: <a href="mailto:simona.sacone@unige.it">simona.sacone@unige.it</a>

## Course in: MACHINE AND SYSTEMS ENGINEERING FOR ENERGY, THE ENVIRONMENT AND TRANSPORT

### Curriculum: TRANSPORT AND LOGISTICS SYSTEMS ENGINEERING (CODE 5142)

<b>Coordinator:</b> Cianci Roberto	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 2 (without grant).	
(*) 1 grant as per Ministerial Decree 198/03 main field of research: <b>“Advanced transport and logistics, mobility information on people and goods”</b> , the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 100,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	The “Transport and logistics systems engineering” curriculum presents research themes that deal with the mobility of people on the various territorial scales: estimate and analysis of the demand for transport; analysis, simulation and optimization of the transport offer, of the demand/offer interaction, of the economic, territorial, energetic and environmental impact; <ul style="list-style-type: none"> <li>• the planning, management and operation of intermodal transport networks of goods: mathematical models, analysis and optimization of the performance of the road, railway, air and sea transport infrastructures and services, as well as their intermodal interactions;</li> <li>• evaluation of the effects of interventions in relation to mobility systems projects even integrated, with special reference to the energetic and environmental impact on the territory and therefore to their general sustainability;</li> <li>• analysis and evaluation of the externalities of transport and logistics systems, with special reference to sustainability, safety and security features and issues, typical of each stage of transport and its interactions with the surrounding environment, even in relation to the different modes of transport and their integration.</li> </ul>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Angela Di Febraro, DIME, Via Montallegro 1 ( <a href="mailto:Angela.DiFebraro@unige.it">Angela.DiFebraro@unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	<a href="mailto:roberto.cianci@unige.it">roberto.cianci@unige.it</a>

**Course in: MACHINE AND SYSTEMS ENGINEERING FOR ENERGY, THE ENVIRONMENT AND TRANSPORT**

**Curriculum: MACHINE AND SYSTEMS ENGINEERING FOR ENERGY, THE ENVIRONMENT AND PROPULSION (CODE 5143)**

<b>Coordinator:</b> Cianci Roberto	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places:</b> 8 - <b>Grants:</b> 4 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 3 (without grant).	
(*) 3 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant as per Ministerial Decree D.M. 198/03 main field of research: “ <b>Expansion and development of the motor industry including two-wheeled vehicles with low fuel consumption and low environmental impact engines</b> ”, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 100,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	<p>The research themes of the Curriculum concern the production of energy and aircraft propulsion. They are experimental, numeric and theoretical and concern:</p> <p>1) Turbo machines and combustors for the generation of energy and aircraft propulsion:</p> <ul style="list-style-type: none"> <li>• flow analysis in plant components and turbo machines;</li> <li>• design of tractor and operating turbo machines;</li> <li>• unsteady aerodynamics of burners for turbo gas plants;</li> <li>• mechanisms generating aerodynamic noise in turbo machines</li> <li>• study of combustion processes.</li> </ul> <p>2) Internal combustion engines for automobile traction and marine propulsion:</p> <ul style="list-style-type: none"> <li>• analysis of road vehicle emissions and models of the diffusion of pollutants in the environment;</li> <li>• study of the functional characteristics of the components of suction and exhaust systems of engines for self traction;</li> <li>• advanced air compressing systems for automobile applications;</li> <li>• optimization of performance, consumption and polluting emissions of engines for road traction.</li> </ul> <p>3) Systems for the generation of energy based on traditional primary and renewable resources:</p> <ul style="list-style-type: none"> <li>• analysis of the static and dynamic behaviour of energy plants;</li> <li>• realisation of simulators in simulated and real time;</li> <li>• analysis and optimization of complex and innovative plants for the production of energy.</li> </ul> <p>The themes in question present important links with transport systems, with model features linked to mathematical Physics and Numerics, with the Controls and the handling of signals.</p>
<b>Information on references</b>	<p>Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:</p> <p>Prof. Andrea Cattanei, DIME, Via Montallegro 1 (<a href="mailto:cattanei@unige.it">cattanei@unige.it</a>)</p> <p>The name, status and service place of the referees chosen by the candidates must be stated in their applications.</p>
<b>Further information</b>	<a href="mailto:roberto.cianci@unige.it">roberto.cianci@unige.it</a>

**Course in: MACHINE AND SYSTEMS ENGINEERING FOR ENERGY, THE ENVIRONMENT AND TRANSPORT**

**Curriculum: MATHEMATICAL ENGINEERING AND SIMULATION (CODE 5144)**

<b>Coordinator:</b> Cianci Roberto	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 2 (without grant).	
(*): 1 grant as per Ministerial Decree D.M. 198/03 main field of research: "Advanced transport and logistics, mobility information on people and goods", including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 100,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Research themes</b>	The following research themes are comprised in the curricula: 1. Continuous and discrete mathematical models of thermo fluid dynamics of energy systems; fluid mechanics and the relative equations. Problems concerning the acoustics and propagation of waves in fluid and solid mediums by means of "analogous instruments". Metamaterials. Models for the optimization of the performance of machines and energy systems. 2. Methods for the development and analysis of discrete and continuous models for the simulation of systems; development of simulators and federations of simulators for complex systems. Definition of objectives, formalization, implementation solutions, integration, controls, approval, tests, accreditation and execution of real-time, fast-time and slow time models. 3. Models with finite and infinite degrees of liberty. Diffusion problems and resolving techniques. Environmental issues concerning public safety in the fight against terrorism. 4. Solid mechanics for girders/beams and elasto-plastic plates. Numerical control techniques. 5. Development of aggregate and operative programming systems, implemented by means of instruments of finite capacity, with simulation techniques for discrete events. Excellent estimate of the state of linear and non-linear systems. 6. Development and application of artificial intelligence techniques for the management of the value chain. Supporting geometric methods for the development of simulators in virtual environments. Simulation applied to the logistics and transport sector for the management of the supply chain for decision support. 7. Simulation applied to the military, tactic and strategic sector.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Roberto Cianci, DIME, Piazzale JF Kennedy, Pad. D ( <a href="mailto:roberto.cianci@unige.it">roberto.cianci@unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	<a href="mailto:roberto.cianci@unige.it">roberto.cianci@unige.it</a>

## Course in: MODERN AND CLASSICAL LITERATURES AND CULTURES

### Curriculum: PHILOLOGY, INTERPRETATION AND HISTORY OF ITALIAN AND ROMANCE TEXTS (5145)

<b>Coordinator:</b> Verdino Stefano Fernando	
Department of Italian and Romance languages, Classical Studies, Arts and Performing Arts (Dipartimento di Italianistica, romanistica, antichistica, arti e spettacolo – DIRAAS)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 2 p.m., at the Department of Italian and Romance languages, Classical Studies, Arts and Performing Arts (Dipartimento di Italianistica, romanistica, antichistica, arti e spettacolo – DIRAAS), Via Balbi 2, Room 8, 4 <sup>th</sup> floor - 16126 Genova.
<b>Interview</b>	12/11/2013 - 9 a.m., at the Department of Italian and Romance languages, Classical Studies, Arts and Performing Arts (Dipartimento di Italianistica, romanistica, antichistica, arti e spettacolo – DIRAAS), Via Balbi 2 - 16126 Genova.
<b>Exam syllabus</b>	Written test Historical and literary comment and illustration of a text in verse or prose, namely the discussion of a theoretical or critical text concerning one of the following subject fields: Italian literature, Italian linguistics, Italian philology, Romance philology and linguistics, modern and contemporary Italian literature, literary theory, history of Italian literary criticism, Italian theatre literature. Interview Discussion of the written test and of the candidate's research project, which s/he must attach to the application. The examining commission proposes to direct the graduate student towards a project that it deems more suitable for his/her abilities and skills, as well as being more congruent with the research lines of the Doctoral course. The translation of a passage from English or French will also be requested during the interview.
<b>Further information on how to present qualifications</b>	In order to better evaluate candidates' aptitude for research, they are advised to hand in a copy of their thesis and any publications to the Secretarial office of DIRAAS (see above), where they can be collected when the public exam procedure is over.
<b>Research themes</b>	- Philology and criticism of Italian and Romance texts. - Intertextual and intercultural research themes, from the origins of the "vulgar" literatures to contemporary Italian literature. - Italian lexicology and lexicography . - Comedy, satire, parody: medieval and modern themes and practices. - Intersections and contamination in Italian literature from Mannerism to the Twentieth Century. Sub fields: a) Ligurian workshop from the Sixteenth to the Twentieth Century b) From Mannerism to Romanticism c) The Risorgimento. - Authorial Documents in Liguria. - Literature and Journalism.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Quinto Marini, DIRAAS via Balbi 2 e-mail: <a href="mailto:quinto.marini@unige.it">quinto.marini@unige.it</a> . The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English o French
<b>Further information</b>	Prof. Quinto Marini, DIRAAS via Balbi 2 tel.: (+39) 010 209-51403 e-mail: <a href="mailto:quinto.marini@unige.it">quinto.marini@unige.it</a> Prof. Stefano Verdino, DIRAAS Via Balbi 2 tel.: (+39) 010 209-51402 e-mail: <a href="mailto:stefano.verdino@unige.it">stefano.verdino@unige.it</a> Prof. Giorgio Bertone, DIRAAS via Balbi 6 tel.: (+39) 010 209-9811 e-mail: <a href="mailto:Giorgio.Bertone@unige.it">Giorgio.Bertone@unige.it</a>



## Course in: MODERN AND CLASSICAL LITERATURES AND CULTURES -

### Curriculum: MODERN AND COMPARATIVE LITERATURES

<b>Coordinator:</b> Verdino Stefano Fernando	
Department of Italian and Romance languages, Classical Studies, Arts and Performing Arts (Dipartimento di Italianistica, romanistica, antichistica, arti e spettacolo – DIRAAS)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 2 p.m. in the Library of the Department of Modern Languages and Cultures, Piazza S. Sabina 2 – 16124 Genova
<b>Interview</b>	12/11/2013 - 9 a.m., at the Department of Modern Languages and Cultures, Piazza S. Sabina 2– 16124 Genova
<b>Exam syllabus</b>	The written test – in Italian or English, the candidate may choose – will concern issues of the modern novel (its theoretical definition, its relationships with history and geography, its formal structures) and will imply the knowledge of the following works: - G. Lukács, Teoria del romanzo, 1920 (Italian translation SE). - R. Girard, Menzogna romantica e verità romanzesca, 1961 (Italian translation Bompiani). - M. Bachtin, Estetica e romanzo, 1979 (Italian translation Einaudi). - U. Eco, Lector in fabula, 1979 (Bompiani) - F. Moretti, Atlante del romanzo europeo, 1997 (Einaudi). For initial introduction/familiarization the following is advised: Guido Mazzoni, Teoria del romanzo, il Mulino 2011. The interview will be a discussion of the written paper and of a research project the candidate must attach to his/her application form. The Teaching Body reserves the right to direct the graduate student towards a project that it deems more suitable for his/her abilities and skills, as well as being more congruent with the research lines of the Doctoral course.
<b>Further information on how to present qualifications</b>	In order to better evaluate candidates' aptitude for research, they are advised to hand in a copy of their thesis and any publications to the Secretarial office of the Department of Modern Languages and Cultures, where they can be collected when the public exam procedure is over.
<b>Research themes</b>	- Genesis and development of European and American narrative (from the Sixteenth to the Twentieth century). - The language of modern and contemporary poetry. - Forms of modern and contemporary dramaturgy. - Travel literature. - The processes of identity construction (national, colonial and post-colonial, gender). - Influences and hybridizations among different cultural traditions, with special regard to the exchanges between Italian culture and foreign cultures.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: e-mail: <a href="mailto:Giuseppe.Sertoli@lingue.unige.it">Giuseppe.Sertoli@lingue.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	During the interview candidates' knowledge of at least two of the languages among those taught in the Department will be tested: French, English, German, Spanish, Portuguese, Russian, Polish.
<b>Further information</b>	Prof. Giuseppe Sertoli, Lingue e Culture moderne (Modern Languages and Cultures) Tel.: (+39) 010-2099557 e-mail: <a href="mailto:Giuseppe.Sertoli@lingue.unige.it">Giuseppe.Sertoli@lingue.unige.it</a>

## Course in: MODERN AND CLASSICAL LITERATURES AND CULTURES

### Curriculum: SCIENCES OF CLASSICAL STUDIES (CODE 5147)

<b>Coordinator:</b> Verdino Stefano Fernando	
Department of Italian and Romance languages, Classical Studies, Arts and Performing Arts (Dipartimento di Italianistica, romanistica, antichistica, arti e spettacolo – DIRAAS)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 9 a.m., at the Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST) Linguistic and Literary Section, Via Balbi, 4, 3 <sup>rd</sup> floor, 16126 Genova.
<b>Interview</b>	12/11/2013 - 9 a.m., at the Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST), Hellenic Section, Via Balbi, 4, ground floor, 16126 Genova.
<b>Exam syllabus</b>	Orientation A (Classical Philology and Greek and Latin Literature) - The written test will be a translation from Latin or Greek (the candidate may choose) with a philological and exegetic comment. - The interview will be a discussion in which the candidate will illustrate his/her research project, and a discussion of the written test. Orientation B (Ancient History and Archaeology) - The written test will deal with the themes contemplated in the research themes in the light of ancient sources and modern bibliography. - The interview will be a discussion in which the candidate will illustrate his/her research project, and a discussion of the written test.  Candidates shall attach their research project to their application. The Teaching Body reserves the right to direct the graduate student towards a project that it deems more suitable for his/her abilities and skills, as well as being more congruent with the research lines of the Doctoral course.
<b>Further information on how to present qualifications</b>	In order to better evaluate candidates' aptitude for research, they are advised to hand in a copy of their thesis and any publications to the Secretarial office of Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST) Linguistic and Literary Section, Via Balbi, 4, 3 <sup>rd</sup> floor, where they can be collected when the public exam procedure is over.
<b>Research themes</b>	Orientation A (Classical Philology and Greek and Latin Literature Filologia) - Greek Philology and Literature; - Latin Philology and Literature; - Tradition and fortune of ancient Christian texts; - Didactics of the Greek and Latin languages and literature.  Orientation B (Ancient History and Archaeology) - Greek Civilization: historical, political, institutional, social, economic, religious and cultural aspects; - Roman Civilization: historical, political, institutional, social, economic, religious and cultural aspects; - Late Ancient and Byzantine Civilization; - Greek and Roman archeology and history of art: archeological research methods.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following addresses: Orientation A Prof. Franco Montanari, e-mail: <a href="mailto:franco.montanari@unige.it">franco.montanari@unige.it</a> Orientation B Prof. Francesca Gazzano e-mail: <a href="mailto:francesca.gazzano@unige.it">francesca.gazzano@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English or French or Spanish or German. During the interview candidates must show sufficient knowledge of at least two of the languages indicated above, in order to translate a scientific publication.
<b>Further information</b>	Orientation A Prof. Franco Montanari, DAFIST - Sezione Ellenica (Hellenic Section) tel. (+39) 010/2099724 e-mail: <a href="mailto:franco.montanari@unige.it">franco.montanari@unige.it</a>  Orientation B Prof. Francesca Gazzano DIRAAS (Sezione Antichistica – Classical Studies Section) tel.: (+39) 010 209 9769, fax: 010 209 5468, e-mail: <a href="mailto:francesca.gazzano@unige.it">francesca.gazzano@unige.it</a>

**Course in: MATHEMATICS AND APPLICATIONS**  
**(CODE 5148)**

<b>Coordinator:</b> Piana Michele	
Department of Mathematics (Dipartimento di Matematica - DIMA)	
<b>Places:</b> 14 - <b>Grants:</b> 7 (*).	
(*) 4 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant based on funds from MIUR/Department of Mathematics (Dipartimento di Matematica – DIMA), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant funded by Paramed s.r.l., the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 13.638,47	
(*) 1 grant funded by C.M.C.-Sud s.r.l., the annual gross amount of the grant, including social security expenses to be paid by the recipient, is € 13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	Candidates must present: - their curriculum vitae et studiorum - a self-certified statement of their specialist degree mark - a self-certified statement of the exams they sat and the relative marks during the 5 years of the Specialist Degree - a research project (2 pages max.) which describes the research theme they intend to work on during the Doctoral Course in - their degree dissertation of the Specialist Degree (to be uploaded online) - two reference letters
<b>Research themes</b>	Harmonic analysis, Elliptic equations, Logic problems, Commutative algebra and computer algebra; Complex projective geometry, K-theory and algebraic cycles, Analytic theory of numbers, Geometric methods in physics theories, Quantum cosmology, Continuum mechanics, Mathematical probability and statistics, Numeric analysis and computational methods with applications in medical imaging, neurosciences and astrophysics.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Michele Piana via Dodecaneso 35 16146 Genova, Italy e-mail: <a href="mailto:piana@dima.unige.it">piana@dima.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	Michele Piana Dipartimento di Matematica Università di Genova via Dodecaneso 35 16146 Genova e-mail: <a href="mailto:piana@dima.unige.it">piana@dima.unige.it</a>

## Course in: MECHANICS, ENERGETICS AND MANAGEMENT

### Curriculum: ECONOMY AND MANAGEMENT (CODICE 5149)

<b>Coordinator:</b> Tagliafico Luca Antonio	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places: 2 - Grants: 1 (*)</b>	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 10 a.m., at the Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME), Via Opera Pia 15 - 16145 Genova On request, the interview may also be done using computers (video conference via SKYPE) by contacting the Coordinator of the Doctoral Course Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) in advance and in time.
<b>Exam syllabus</b>	The interview will be a discussion of the research project and qualifications/publications presented.
<b>Further information on how to present qualifications</b>	Qualifications/publications must contain a detailed explanation and the planning of the development of a possible research project concerning one of the syllabuses of the field Economy and Management, in order to evaluate the candidate's ability to organize and carry out research. If admitted to the doctoral course, the candidate will carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on specific activities described in the actual project. The research project (min. 8,000 max. 16,000 characters including spaces and punctuation) must comprise: - the research title; - field state of the art and relative bibliographic references; - objectives and expected results.  In addition to the documentation that must be submitted by the online procedure, the following information, if present, will also be taken into consideration: - the title of the thesis dissertation of the Specialist/II level Degree/Master of Science/Master of Engineering together with a brief description (max. 4,000 words including spaces and punctuation); - a list of the exams done with the number of credits, marks and syllabuses (max 500 characters including spaces and punctuation for each course); - any other qualifications relevant to the application and scientific activity carried out; - a letter that states aptitude motivations and the advancement expectations of the candidate which prompted application.
<b>Research themes</b>	The Economy and Management specialization aims at developing quantitative and computational approaches in finance and economics. Two main research themes with the corresponding syllabuses have been singled out for this specialization: 1. Agent-based Computational Economics. This syllabus focuses mainly on the use of agent technologies and methodologies for the study of economics and finance, a bottom-up approach that allows for the study of regularities emerging in the economy as a result of the behaviour and interactions of heterogeneous economic agents in artificial economic systems and which adapts better, with respect to traditional dynamic stochastic models, to the development of a realistic representation of the economy. The syllabus develops skills that can be applied directly to the financial industry, to government and international organizations and to the academic world. 2. Financial Engineering. This syllabus focuses on computational econometrics, on data mining, on automated learning and on dynamic stochastic models of financial and economic data, the objective of which is to study the pricing of derivatives and financial assets, as well as risk management, in a non-Gaussian environment and in the presence of extreme events. Furthermore, the syllabus includes innovative themes relative to the management of shares portfolios, such as pair trading, statistical arbitrage as well as the emerging theme of high frequency automated trading. The syllabus develops skills for natural work opportunities both in the financial and academic fields.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator of the IMEG doctoral research course Prof. Luca A. TAGLIAFICO DIME/TEC Via all'Opera Pia 15/A 16145 GENOVA tel +390103532880 e-mail <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a>

## Course in: MECHANICS, ENERGETICS AND MANAGEMENT

### Curriculum: TECHNICAL PHYSICS (CODICE 5150)

<b>Coordinator:</b> Tagliafico Luca Antonio	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant based on funds from MIUR/ Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 10 a.m., at the Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME), Via Opera Pia 15A - 16145 Genova On request, the interview may also be done using computers (video conference via SKYPE) by contacting the Coordinator of the Doctoral Course Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> in advance and in time.
<b>Exam syllabus</b>	The interview will be a discussion of the research project and qualifications/publications presented.
<b>Further information on how to present qualifications</b>	QUALIFICATIONS/PUBLICATIONS MUST CONTAIN A DETAILED EXPLANATION AND THE PLANNING OF THE DEVELOPMENT OF A POSSIBLE RESEARCH PROJECT, quoting the TECHNICAL PHYSICS (TF) syllabus, and the field it refers to, in order to evaluate the candidate's ability to organize and carry out research. If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, or similar themes, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	The Syllabus of Technical Physics (TF) focalizes on research themes typical of the Macrosectors it refers to. The TF syllabus of the IMEG Doctoral Course resumes the historical course of the Doctoral Courses in Technical Physics (which first started in 1992). Its objective is to educate young researchers capable of developing theoretical and experimental research in the sectors of thermodynamics, thermo fluid dynamics and the transmission of heat; of dealing with research in the energetic sector, by means of a correct methodological approach to the thermodynamic problem; of analyzing thermal, acoustic and luminous phenomena which contribute to defining the conditions of environmental wellbeing, as well as the environmental impact and the consequent possibilities of control. The TF syllabus develops research in the following fields: 1. Physics of building and environmental control Components, thermotechnical systems and air-conditioning plants. Physics of building and environmental control. Illumination techniques and applied acoustics. The themes are developed according to the traditional approach of Environmental Technical Physics. 2. Applied energetics and thermo fluid dynamics Thermodynamic analysis of energy systems. Energy sources, vectors and rational use of energy. Environmental impact of energy systems. Mono and multiphase thermodynamics. Thermophysical properties of materials. Techniques to increase the efficacy of thermo fluid dynamic processes. The themes are developed according to the traditional approach of Industrial Technical Physics. 3. Nuclear plants Within the availability of resources, to the first two fields the themes characteristic to Nuclear Plants will be added, for the innovative application of the functioning principles of nuclear fission plants for the production of electricity and hydrogen and the solution to advanced problems concerning the thermohydraulics of the core of thermal and fast reactors.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator of the IMEG doctoral research course Prof. Luca A. TAGLIAFICO DIME/TEC Via all'Opera Pia 15/A 16145 GENOVA tel +390103532880 e-mail <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a>

**Course in: MECHANICS, ENERGETICS AND MANAGEMENT****Curriculum: MECHANICS, MEASURES AND ROBOTICS (CODE 5151)**

<b>Coordinator:</b> Tagliafico Luca Antonio	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "Advanced manufacturing systems with an impact not only on tool machinery, but on the 'Made in Italy' manufacturing compartments, such as the textile, garment and instrumental machinery industries", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 10 a.m., at the Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME), Via Opera Pia 15A - 16145 Genova On request, the interview may also be done using computers (video conference via SKYPE) by contacting the Coordinator of the Doctoral Course Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) in advance and in time.
<b>Exam syllabus</b>	The interview will be a discussion of the research project and qualifications/publications presented, and on the correlated field themes.
<b>Further information on how to present qualifications</b>	QUALIFICATIONS/PUBLICATIONS MUST CONTAIN A DETAILED EXPLANATION AND THE DEVELOPMENT PLAN OF A POSSIBLE RESEARCH PROJECT, quoting the Mechanics, Measures and Robotics (MMR) syllabus, and the field it refers to, in order to evaluate the candidate's ability to organize and carry out research. If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, or similar themes, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	The Mechanics, Measures and Robotics (MMR) focalizes on research themes typical of the Macrosectors it refers to. In particular research themes proposed concern the functional and constructive design sector, CAD, CAE, robot and manipulation, switch systems, home automation (domotics), remote manipulation, modular robots and robots for safety, intelligent mini-vehicles, systems for disassembly, mechanical behaviour of materials, environmental compatibility and recycling, pneumatics, oleo dynamics, mechanical and mechatronic systems, motor vehicles (cars and motorbikes), railway vehicles, airplanes, mechanical automation, working, raising and transport systems, lubrication, vibrations and noise, sound quality, experimental methods, diagnostics and qualifying of machines and components, monitoring and maintenance, reliability, reverse logistics.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator of the IMEG doctoral research course Prof. Luca A. TAGLIAFICO DIME/TEC Via all'Opera Pia 15/A 16145 GENOVA tel +390103532880 e-mail <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a>

## Course in: MECHANICS, ENERGETICS AND MANAGEMENT

### **Curriculum: TECHNOLOGIES AND PLANTS (CODE 5152)**

<b>Coordinator:</b> Tagliafico Luca Antonio	
Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 10 a.m., at the Department of Mechanical, Energetics, Management and Transport Engineering (Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti - DIME), Via Opera Pia 15 - 16145 Genova On request, the interview may also be done using computers (video conference via SKYPE) by contacting the Coordinator of the Doctoral Course Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) in advance and in time.
<b>Exam syllabus</b>	The interview will be a discussion of the research project and qualifications/publications presented, and on the correlated field themes.
<b>Further information on how to present qualifications</b>	QUALIFICATIONS/PUBLICATIONS MUST CONTAIN A DETAILED EXPLANATION AND THE DEVELOPMENT PLAN OF A POSSIBLE RESEARCH PROJECT, quoting the Technologies and Plants (TP) syllabus, and the field it refers to, in order to evaluate the candidate's ability to organize and carry out research. If admitted to the doctoral course, the candidate will generally carry out his/her activity within the syllabus chosen for his/her project, or similar themes, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	<p>The Technologies and Plants (TP) syllabus focalizes on research themes typical of the Macrosectors it refers to. It is organized in two specializations:</p> <p>1. Specialization Processing Technologies and Systems</p> <ul style="list-style-type: none"><li>• analysis of the variable that influence the characteristics of welded joints implemented with traditional and innovative techniques,</li><li>• study of the potential of robotic welding plants,</li><li>• singling out of solutions that allow the obtaining of glued joints with adequate characteristics (study of the surface preparation methods, analysis of the behaviour of adhesives in different environmental conditions),</li><li>• study of the problems concerning the fine tuning and monitoring of the processing of metallic and non-metallic materials,</li><li>• study and singling out of construction techniques of moulds for polymeric materials,</li><li>• surface analysis and fine tuning of techniques to obtain the desired degree of finishing and chemical reactivity.</li></ul> <p>2. Specialization Industrial Plants</p> <ul style="list-style-type: none"><li>• management of production processes,</li><li>• Lean Manufacturing, Production, Assembly models,</li><li>• redesigning and costs of production processes,</li><li>• Life Cycle Assessment of plants and processes,</li><li>• Engineering and industrialization of new products and production cycles.</li></ul> <p>The activities that will be carried out within the doctoral course aim at educating young researchers capable of developing theoretical and experimental research starting from the analysis of the state of the art and, working autonomously, developing innovative solutions.</p> <p>The following laboratories are available for this syllabus:</p> <ul style="list-style-type: none"><li>- laboratory for the micro - macro structural and mechanic characterization of materials</li><li>- welding laboratory</li><li>- laboratory for the implementation of glued joints</li><li>- laboratory to test the environmental ageing of materials</li><li>- laboratory of tools machinery, laboratory for the characterization of surfaces.</li></ul>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Luca A. TAGLIAFICO ( <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Coordinator of the IMEG doctoral research course Prof. Luca A. TAGLIAFICO DIME/TEC Via all'Opera Pia 15/A 16145 GENOVA tel +390103532880 e-mail <a href="mailto:tgl@dittec.unige.it">tgl@dittec.unige.it</a>

## Course in: CLINICAL-EXPERIMENTAL INTERNAL MEDICINE

Curriculum: CLINICAL PATHOPHYSIOLOGY OF ENDOCRINE AND METABOLIC DISORDERS (CODE 5153)

<b>Coordinator:</b> Bagnasco Marcello Ferruccio	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	11/11/2013 - 9 a.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	11/11/2013 - 2.30 p.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest, also on the basis of previous activities stated in their curriculum vitae.
<b>Research themes</b>	<ul style="list-style-type: none"> <li>- Physiopathology of hypophyseal secretions, with special regard to the hypothalamus-somatotropin-prolactin axis and to the IGF1 system</li> <li>- Physiopathology of receptors for somatostatin in neuroendocrine tumours</li> <li>- Epidemiological and clinical aspects of thyroid nodules even in relation to iodine supply</li> <li>- Cellular mechanisms of insulin action and other growth factors</li> <li>- Physiopathology of insulin resistance and diabetes type II</li> </ul>
<b>Information on references</b>	<p>Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:</p> <p>Contact professor: Prof Marcello Bagnasco (Course Coordinator): e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a>  c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova  Contact person in administration: Paolo Bava e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>  The name, status and service place of the referees chosen by the candidates must be stated in their applications.</p>
<b>Foreign languages</b>	English
<b>Further information</b>	<p>Contact professor: Prof Marcello Bagnasco (Course Coordinator):  tel. 010-3537979, e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a>  Contact person in administration: Paolo Bava  tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a></p>



**Course in: CLINICAL-EXPERIMENTAL INTERNAL MEDICINE****Curriculum: CLINICAL PATOPHYSIOLOGY OF RENAL, CARDIOVASCULAR AND ARTERIAL HYPERTENSIVE DISEASES (CODE 5154)****Curriculum: GERONTOLOGY, PATHOPHYSIOLOGY OF GERIATRIC DISEASES AND ANTI-AGEING MEDICINE (CODE 5156)**

<b>Coordinator:</b> Bagnasco Marcello Ferruccio	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47 Please note that the grant and the two places will be assigned to the two candidates who classify as first on the list which is common to the two curricula.	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	11/11/2013 - 9 a.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	11/11/2013 - 2.30 p.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest, also on the basis of their curriculum vitae.
<b>Research themes</b>	Curriculum: CLINICAL PATOPHYSIOLOGY OF RENAL, CARDIOVASCULAR AND ARTERIAL HYPERTENSIVE DISEASES - Arterial hypertension: determinants of renal and extra renal damage in patients with essential arterial hypertension. - Microalbuminuria/proteinuria as predictors of renal and cardiovascular damage and light renal dysfunctions. - Pathophysiological and pathogenic aspects of coronary and aortic atherosclerosis disease - Mechanisms of artery thrombosis and the possible role of oxidizing stress in the pathogenesis of acute coronary syndromes and of aortic aneurysms.  Curriculum: GERONTOLOGY, PATHOPHYSIOLOGY OF GERIATRIC DISEASES AND ANTI-AGEING MEDICINE Pathogenesis of neurodegenerative diseases related to ageing
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Contact professor: Prof Marcello Bagnasco (Course Coordinator): e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova Contact person in administration: Paolo Bava e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professor: Prof Marcello Bagnasco (Course Coordinator): tel. 010-3537979, e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> Contact person in administration: Paolo Bava tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>

**Course in: CLINICAL-EXPERIMENTAL INTERNAL MEDICINE****Curriculum: CLINICAL AND EXPERIMENTAL RESPIRATORY PATHOPHYSIOLOGY (CODE 5155)**

<b>Coordinator:</b> Bagnasco Marcello Ferruccio	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 – <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	11/11/2013 - 9 a.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	11/11/2013 - 2.30 p.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest, also on the basis of their curriculum vitae.
<b>Research themes</b>	<ul style="list-style-type: none"><li>- The relationships between allergic inflammations and bronchomotricity, study of pharmacological and immunotherapeutic effects on allergic inflammation and on bronchial reactivity.</li><li>- Function and structure of the bronchial part: study of inflammatory and remodelling processes.</li><li>- Mechanisms of bronchial obstruction at rest and under stress: clinical physiopathology and instrumental tests of the respiratory function.</li><li>- Advanced therapeutic strategies in allergology and pneumology.</li></ul>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Contact professor: Prof Marcello Bagnasco (Course Coordinator): e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova Contact person in administration: Paolo Bava e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professor: Prof Marcello Bagnasco (Course Coordinator): tel. 010-3537979, e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> Contact person in administration: Paolo Bava tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>

**Course in: CLINICAL-EXPERIMENTAL INTERNAL MEDICINE****Curriculum: AUTOIMMUNE INFLAMMATORY DISEASES: PATHOPHYSIOLOGICAL AND DIAGNOSTIC ASPECTS (CODICE 5157)**

<b>Coordinator:</b> Bagnasco Marcello Ferruccio	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	11/11/2013 - 9 a.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	11/11/2013 - 2.30 p.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest, also on the basis of their curriculum vitae.
<b>Research themes</b>	<ul style="list-style-type: none"><li>- Immunoregulation and autoimmunity: the role of molecular mechanisms of co-stimulation.</li><li>- Laboratory diagnostics of systemic and organ-specific autoimmune diseases.</li><li>- Autoimmune thyroid pathologies, celiac disease, autoimmune gastritis and multi-autoimmune syndromes: epidemiological, immunological and genetic aspects.</li><li>- Self-inflammation, autoimmunity and the cardiovascular apparatus: innate and acquired immunity and cardiocirculatory decompensation, role of the endothelium.</li><li>- Atherosclerosis and innate and acquired immunity.</li></ul>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Contact professor: Prof Marcello Bagnasco (Course Coordinator): e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova Contact person in administration: Paolo Bava e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professor: Prof Marcello Bagnasco (Course Coordinator): tel. 010-3537979, e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> Contact person in administration: Paolo Bava tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>

**Course in: CLINICAL-EXPERIMENTAL INTERNAL MEDICINE****Curriculum: DISEASES OF THE DIGESTIVE SYSTEM AND OF THE LIVER (CODICE 5158)**

<b>Coordinator:</b> Bagnasco Marcello Ferruccio	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	11/11/2013 - 9 a.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	11/11/2013 - 2.30 p.m., in Room C (Aula C) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest, also on the basis of their curriculum vitae.
<b>Research themes</b>	<ul style="list-style-type: none"><li>- Helicobacter Pylori infection: role in functional dyspepsia, bacterial resistance in eradicating therapies, association with extradigestive pathologies</li><li>- Gastroesophageal reflux diseases: evaluation of acid and non-acid reflux by means of pH-metry and impedentiometry, correlation with histology.</li><li>- Small intestinal bacterial overgrowth (sibo): non-invasive diagnostic methods, role in different digestive diseases, endocrine, autoimmune.</li><li>- HCV-correlated chronic hepatitis and hepatic fibrogenesis: diagnostic and therapeutic aspects, association with hepatocarcinoma and relative prognostic factors.</li></ul>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Contact professor: Prof Marcello Bagnasco (Course Coordinator): e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova Contact person in administration: Paolo Bava e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professor: Prof Marcello Bagnasco (Course Coordinator): tel. 010-3537979, e-mail: <a href="mailto:bagnasco@csita.unige.it">bagnasco@csita.unige.it</a> Contact person in administration: Paolo Bava tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>

## Course in: EXPERIMENTAL MEDICINE

### Curriculum: BIOCHIMESTRY (CODE 5159)

<b>Coordinator:</b> Salamino Franca	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 3 - <b>Grants:</b> 2 (*).	
(*) 2 grants as per Ministerial Decree 198/03 main field of research "Human Health (study and treatment of tumours and degenerative diseases by means of new approaches based on the knowledge of the human genome)", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47.	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 - 10 a.m., at the Department of Experimental Medicine (Biochemistry Section – Dipartimento di Medicina Sperimentale - DIMES), Viale Benedetto XV 1, auletta (small room), 1 <sup>st</sup> floor, 16132 Genova
<b>Exam syllabus</b>	The interview will focus on topics relating to General Biochemistry, the illustration of any of the candidates' previous experience in the field of scientific research or while preparing their dissertation and English knowledge will be tested with the reading and translation of a passage from a scientific article.
<b>Research themes</b>	Study of molecular mechanisms for the regulation of cellular activity by protein mediators and not only, of natural origin. Alteration in their regulation and associated pathogenicity.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Franca Salamino DIMES sez. Biochimica Viale Benedetto XV 1 16132 Genova E-mail: <a href="mailto:salamino@unige.it">salamino@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Franca Salamino DIMES sez. Biochimica Viale Benedetto XV 1 16132 Genova Tel +39 010 3538160 E-mail: <a href="mailto:salamino@unige.it">salamino@unige.it</a>

**Course in: EXPERIMENTAL MEDICINE****Curriculum: PHARMACOLOGY AND TOXICOLOGY (CODE 5160)**

<b>Coordinator:</b> Salamino Franca	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 4 - <b>Grants:</b> 3 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 2 grants as per Ministerial Decree 198/03 "The relaunching of the pharmaceutical industry also by means of the fine chemistry of natural compounds for new diagnostic applications and new active principles", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 10 a.m., at the Department of Pharmacy, Pharmacology and Toxicology Section (Dipartimento di Farmacia - Sezione di Farmacologia e Tossicologia), Viale Cembrano 4, 16148 Genova
<b>Exam syllabus</b>	The interview will focus on topics relating to General and Clinical Pharmacology and General and Special Toxicology, the illustration of any of the candidates' previous experience in the field of scientific research or while preparing their dissertation and English knowledge will be tested with the reading and translation of a passage from a scientific article.
<b>Research themes</b>	Neuropharmacology, Neurotoxicology, Clinical Pharmacology and Genotoxicity.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Mario Marchi, Dipartimento di Farmacia, Viale Cembrano 4, 16148 Genova. e-mail: <a href="mailto:marchi@pharmatox.unige.it">marchi@pharmatox.unige.it</a> . The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Mario Marchi, Dipartimento di Farmacia, Viale Cembrano 4, 16148 Genova. (Tel. 010-3532657; e-mail: <a href="mailto:marchi@pharmatox.unige.it">marchi@pharmatox.unige.it</a> ). Prof. Ernesto Fedele, Dipartimento di Farmacia, Viale Cembrano 4, 16148 Genova. (Tel. 010-3532120; e-mail: <a href="mailto:fedele@pharmatox.unige.it">fedele@pharmatox.unige.it</a> ).

**Course in: MEDICINA SPERIMENTALE****Curriculum: MOLECULAR AND CELLULAR PATHOLOGIES OF DISEASES CORRELATED TO AGEING (CODE 5161)**

<b>Coordinator:</b> Salamino Franca	
Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES)	
<b>Places:</b> 3 – <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	05/11/2013 - 10, a.m., in the General Pathology Division of the Department of Experimental Medicine (Dipartimento di Medicina Sperimentale - DIMES), Via Leon Battista Alberti, 2 - 16132 Genova
<b>Exam syllabus</b>	Interdisciplinary, experimental, clinical methodologies and pharmaceutical and therapeutic themes concerning the pathology of ageing and age-related and age-dependent diseases.
<b>Research themes</b>	Ageing theories - Molecular and cellular alterations in ageing - Ageing mechanisms of the sense organs - Molecular bases of neoplasias
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Roberta Catelani, Dimes - Patologia Generale, Via Leon Battista Alberti, 2 Genova, mail <a href="mailto:patgen@unige.it">patgen@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Roberta Catelani, Dimes - Patologia Generale, Via Leon Battista Alberti, 2 Genova, Tel. 0103538833, mail <a href="mailto:patgen@unige.it">patgen@unige.it</a>

## Course in: TRANSLATIONAL MEDICINE IN ONCOLOGY AND HAEMATOLOGY

### Curriculum: TRANSLATIONAL HAEMATOLOGY (CODE 5162)

<b>Coordinator:</b> Ballestrero Alberto	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 9 a.m., in Room D (Aula D) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	06/11/2013 - 3 p.m. a.m., in Room D (Aula D) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest/programmes, also on the basis of their curriculum vitae.
<b>Research themes</b>	Apoptosis regulation in neoplastic haematological pathologies. Study of the pathogenesis of acute lymphocytic leukaemias. Molecular analysis of leukaemias and multiple myeloma. Innovative therapeutic approaches in the treatment of solid tumours and haematological neoplasias. Tumour pathology as the pathology of the molecular networks of control. Study of the molecular and pathogenic aspects of cardiotoxicity due to antitubercular drugs.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Alberto Ballestrero (coordinator): e-mail: <a href="mailto:aballestrero@unige.it">aballestrero@unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova; Prof. Marco Gobbi, e-mail: <a href="mailto:gobbi@unige.it">gobbi@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professors: Prof. Alberto Ballestrero (coordinator): tel. 010-3538668 e-mail: <a href="mailto:aballestrero@unige.it">aballestrero@unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova; Prof. Marco Gobbi, tel 010-3538953, e-mail <a href="mailto:gobbi@unige.it">gobbi@unige.it</a> Contact person in administration: Paolo Bava tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>



**Course in: TRANSLATIONAL MEDICINE IN ONCOLOGY AND HEMATOLOGY****Curriculum: ONCOLOGICAL GENETICS AND MOLECULAR PATHOLOGY (CODICE 5163)**

<b>Coordinator:</b> Ballestrero Alberto	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 9 a.m., in Room D (Aula D) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	06/11/2013 - 3 p.m., a.m., in Room D (Aula D) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest/programmes, also on the basis of their curriculum vitae.
<b>Research themes</b>	Determination of genes involved in the onset, progression and metastasis phase of the neoplasia by means of studies at tissue level for the development of tumourigenesis and targeted therapy. Evaluation of predisposition to the development of tumours. Studies on high and low penetrance susceptibility genes and new models to calculate the risk.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Contact professors: Prof Alberto Ballestrero (coordinatore): e-mail: <a href="mailto:aballestrero@unige.it">aballestrero@unige.it</a> Prof.ssa Giovanna Bianchi: e-mail: <a href="mailto:Giovanna.Bianchi@unige.it">Giovanna.Bianchi@unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professors: Prof Alberto Ballestrero (coordinator): tel. 010-3538668; e-mail: <a href="mailto:aballestrero@unige.it">aballestrero@unige.it</a> Prof.ssa Giovanna Bianchi: tel 010-3537977 e-mail: <a href="mailto:Giovanna.Bianchi@unige.it">Giovanna.Bianchi@unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova. Contact person in administration: Paolo Bava tel 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>

**Course in: TRANSLATIONAL MEDICINE IN ONCOLOGY AND HEMATOLOGY****Curriculum: TRANSLATIONAL ONCOLOGY (CODE 5164)**

<b>Coordinator:</b> Ballestrero Alberto	
Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*) 1 grant based on funds from MIUR/ Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 9 a.m., in Room D (Aula D) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Interview</b>	06/11/2013 - 3 p.m., in Room D (Aula D) of the Department of Internal Medicine and Medical Specialities (Dipartimento di Medicina interna e Specialità mediche - DIMI), ground floor, Viale Benedetto XV, 6 - 16132 Genova
<b>Exam syllabus</b>	The written test will be on topics relating to the research themes indicated below. The oral test, an interview, may include a discussion of the written test and of the candidates' research field of interest/programmes, also on the basis of their curriculum vitae.
<b>Research themes</b>	Monitoring of solid neoplasias by analyzing circulating nucleic acids. Study of the molecular prognostic and predictive factors of the response of solid neoplasias, including thyroid and neuroendocrine tumours. Pre-clinical studies of associations between/among new antineoplastic drugs. Pre-clinical and clinical experiments in translational oncology. Innovative therapeutic approaches in the treatment of solid tumours and haematological neoplasias. Tumour pathology as the pathology of the molecular networks of control. Study of the molecular and pathogenic aspects of cardiotoxicity due to antiproliferative drugs.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Alberto Ballestrero (coordinatore) e-mail: <a href="mailto:aballestrero@unige.it">aballestrero@unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova; Prof. Francesco Boccardo e-mail <a href="mailto:F.Boccardo@unige.it">F.Boccardo@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Contact professors: Prof. Alberto Ballestrero (coordinatore) tel. 010-3538668, e-mail: <a href="mailto:aballestrero@unige.it">aballestrero@unige.it</a> c/o Dip. DIMI, viale Benedetto XV 6 - 16132 Genova; Prof. Francesco Boccardo tel. 010-5600503; e-mail <a href="mailto:F.Boccardo@unige.it">F.Boccardo@unige.it</a> Contact person in administration: Paolo Bava, tel. 010-3537542, e-mail: <a href="mailto:paolo.bava@unige.it">paolo.bava@unige.it</a>

## Course in: INNOVATIVE METHODS APPLIED TO TRANSMISSIBLE AND CHRONIC-DEGENERATIVE DISEASES: EPIDEMIOLOGY, STATISTICS, PREVENTION, MANAGEMENT AND NURSING

**Curriculum: EPIDEMIOLOGY, PATHOPHYSIOLOGY AND DIAGNOSTIC AND CLINICAL MANAGEMENT OF INFECTIOUS DISEASES (CODICE 5165)**

<b>Coordinator:</b> Viscoli Claudio	
Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Interview</b>	05/11/2013 - 11.30 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Exam syllabus</b>	The tests will concern topics relating to the research themes.
<b>Research themes</b>	1. Infection of the immunocompromised host: epidemiology, diagnostics and therapy. 2. Antibiotic resistance and hospital infections: surveillance, epidemiology and clinical management. 3. HIV infection: immunological alterations, opportunistic infections, antiretroviral therapy. 4. Chronic hepatopathy correlated to HCV and HBV. 5. Tuberculosis: epidemiology and drug resistance.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Claudio Viscoli: <a href="mailto:claudio.viscoli@unige.it">claudio.viscoli@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Dott.ssa Cristina Cartiglia <a href="mailto:c.cartiglia@unige.it">c.cartiglia@unige.it</a>

**Course in: INNOVATIVE METHODS APPLIED TO TRANSMISSIBLE AND CHRONIC-DEGENERATIVE DISEASES: EPIDEMIOLOGY, STATISTICS, PREVENTION, MANAGEMENT AND NURSING**

**Curriculum: EPIDEMIOLOGY AND PREVENTION OF VACCINE-PREVENTABLE DISEASES (CODICE 5166)**

<b>Coordinator:</b> Viscoli Claudio	
Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Interview</b>	05/11/2013 - 11.30 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Exam syllabus</b>	The tests will concern topics relating to the research themes.
<b>Research themes</b>	<p>1. Epidemiology of transmissible vaccine-preventable and non vaccine-preventable diseases – Design, organization and evaluation of clinical-epidemiological and virological surveillance systems – Design, standardization and evaluation of molecular techniques for the detection and characterization of microorganisms – Utilization of mathematical models to evaluate the impact of preventive measures.</p> <p>2. Immunological response to vaccinal preparations – Design, standardization and evaluation of technique to determine the humoral response – Determinants of the cell-mediated response – Clinical studies on monovalent and combined, inactivated and attenuated live vaccines, differently adjuvanted, to be administered by injection and mucosally, so as to evaluate safety, tolerability, immunogenicity and efficacy – Association of different vaccinal preparations and use of alternative schedules – studies on file for the evaluation of effectiveness.</p> <p>3. Role of vaccinations in children and adolescents, adults and the elderly – Detection of rates of vaccine coverage – Monitoring of preventable cases.</p> <p>4. Regulating and authoritative aspects of vaccines. Regulating and authorizing aspects of vaccines – Ethic evaluations.</p>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Giancarlo Icardi: <a href="mailto:icardi@unige.it">icardi@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Dott.ssa Cristina Cartiglia <a href="mailto:c.cartiglia@unige.it">c.cartiglia@unige.it</a>

**Course in: INNOVATIVE METHODS APPLIED TO TRANSMISSIBLE AND CHRONIC-DEGENERATIVE DISEASES: EPIDEMIOLOGY, STATISTICS, PREVENTION, MANAGEMENT AND NURSING**

**Curriculum: RESEARCH METHODOLOGY IN NURSING (CODICE 5167)**

<b>Coordinator:</b> Viscoli Claudio	
Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 funded by the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL)	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Interview</b>	05/11/2013 - 11.30 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Exam syllabus</b>	The tests will concern topics relating to the research themes.
<b>Research themes</b>	1. Patient safety and error risk prevention in assistance procedures. 2. Prevention, education and assistance of people who suffer from chronic health problems. 3. Family and Patient Centred Care and Child and family Centred Care 4. Innovative training models and methodologies in healthcare.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Loredana Sasso: <a href="mailto:L.Sasso@unige.it">L.Sasso@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Dott.ssa Cristina Cartiglia <a href="mailto:c.cartiglia@unige.it">c.cartiglia@unige.it</a>

**Course in: INNOVATIVE METHODS APPLIED TO TRANSMISSIBLE AND CHRONIC-DEGENERATIVE DISEASES: EPIDEMIOLOGY, STATISTICS, PREVENTION, MANAGEMENT AND NURSING**

**Curriculum: PREVENTION OF CANCER AND OF CHRONIC DEGENERATIVE DISEASES AND BIOSTATISTICS (CODICE 5168)**

<b>Coordinator:</b> Viscoli Claudio	
Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	05/11/2013 - 10 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Interview</b>	05/11/2013 - 11.30 a.m., in the Library of the the Department of Health Sciences (Dipartimento di Scienze della Salute - DISSAL), Via Pastore 1 – 16132 Genova
<b>Exam syllabus</b>	The tests will concern topics relating to the research themes.
<b>Research themes</b>	<ol style="list-style-type: none"> <li>1. Molecular epidemiology of tumours and other chronic-degenerative diseases</li> <li>2. Diet and pharmacological prevention of tumours</li> <li>3. Prevention of cardiovascular diseases, ophthalmic pathologies and neurodegenerative forms</li> <li>4. Smoking related molecular alterations and tumours and their prevention</li> <li>5. Study of the factors of genetic predisposition to cancer</li> <li>6. Methodological principles for the design and analysis of studies of prognostic factors, effect markers of a treatment and surrogate endpoints.</li> </ol>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Alberto Izzotti: <a href="mailto:izzotti@unige.it">izzotti@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Dott.ssa Cristina Cartiglia <a href="mailto:c.cartiglia@unige.it">c.cartiglia@unige.it</a>

## Course in: NEUROSCIENCES

### Curriculum: CLINICAL AND EXPERIMENTAL NEUROSCIENCES (CODE 5169)

<b>Coordinator:</b> Mancardi Giovanni Luigi	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 400,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 – 9 a.m. in the Aula (Room) Magna of the Neurological Clinic (Clinica Neurologica), Largo Paolo Daneo 3, 16132 Genova
<b>Exam syllabus</b>	Description of a research project the candidates intend to develop during their doctoral course.
<b>Further information on how to present qualifications</b>	The following qualifications/publications will be evaluated: - Degree mark - Degree dissertation - Acknowledgments and prizes - Reference letters - Work experience - Publications, posters in congresses
<b>Research themes</b>	a) Neurology: multiple sclerosis; hereditary peripheral neuropathies and immunomediated neuropathies, degenerative diseases of the central nervous system, dementias, epilepsy, cerebrovascular diseases, extrapyramidal diseases and Parkinson's disease. b) Psychiatry: affective disorders, convulsive obsessive disorder, schizophrenia and manic-depressive psychosis. c) Neurogenetics: hereditary peripheral neuropathies, cerebellar ataxias, Huntington's disease, taupathies, type 1 and 2 neurofibromatosis. d) Developmental neurology: epilepsy, child cerebral palsy, mental retardation, extrapyramidal diseases, autism, neuromuscular diseases. e) Neuroimages: with the NMR Research Centre available for the study of diseases of the nervous system conventional, functional and spectroscopic and structural NMR methodologies will be developed for the most important diseases of the nervous system. f) Cellular and Molecular Neurophysiopathology - Cellular and molecular mechanisms of synaptic transmission and plasticity; Molecular mechanisms of the effects of neurotrophins on synaptic transmission and synaptogenesis; Generation and study of engineered circuits of cultured neurons on artificial substrates; Characteristics of the GABA-A receptors of cerebellar granule cells; Activity of synthetic molecules on NK1 receptors and on serotonin transporters; Role of chemokines in the physiology of neural stem cells and in the oncogenesis of brain tumours. g) Sleep Physiopathology - Application of macro and micro-structural mathematical models of the internal organisation of sleep to the study of dyssomnia and hypersomnia; Chronobiology of the regulation of the sleep-waking cycle in relation to road safety and to shift workers; Role of neural mechanisms involved in the regulation of sleep in the epileptogenesis process. h) Pathogenesis of Neurodegenerative Diseases. i) Physiopathology of Movement. j) Stem cell therapies for diseases of the nervous system.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Giovanni Luigi Mancardi Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI), Università di Genova Largo Paolo Daneo 3, 16132 Genova The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Giovanni Luigi Mancardi Coordinator of the Neurosciences Doctoral Course Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI) Università di Genova Tel. 010 353 7030 – 7040; Fax 010 353 8631; E-mail: <a href="mailto:glmancardi@neurologia.unige.it">glmancardi@neurologia.unige.it</a>  Dott.ssa Paola Fenu; <a href="mailto:neurologia@neurologia.unige.it">neurologia@neurologia.unige.it</a>

## Course in: NEUROSCIENCES

### Curriculum: NEUROSCIECES AND NEUROTECHNOLOGIES (CODICE 5170)

<b>Coordinator:</b> Mancardi Giovanni Luigi	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI)	
<b>Places:</b> 14 - <b>Grants:</b> 14 (*).	
(*) 14 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 400,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	The following documentation must be submitted by means of the online procedure according to the guidelines of the public notice: a) title and brief description of the degree dissertation; b) list of exams and their marks; c) a signed research project concerning one or more of the research themes of the doctoral course object of the application (maximum 10 pages); d) The names, status and work place of the referees, at least 1 and not more than three, who must send reference letters about the candidate directly to the following email address: <a href="mailto:nbtphdcourse@iit.it">nbtphdcourse@iit.it</a> ; e) a statement declaring the knowledge of English since it is the language of the doctoral course.
<b>Research themes</b>	Candidates are asked to prepare a research project of their choice related to one or more topics of the themes listed below. The soundness and originality of the project will also be evaluated.  <ol style="list-style-type: none"><li>1. Molecular determinants of GABAergic synaptic plasticity.</li><li>2. Optogenetic modulation of transcription: control of the RE1-silencing transcription factor (REST).</li><li>3. Study of the molecular correlates of presynaptic terminal synaptic plasticity.</li><li>4. Characterizing cellular functional organizations in neuronal networks with large-scale electrode arrays.</li><li>5. Design, optimization and validation of microfluidic perfusion devices for microelectrode array electrophysiology and of neuromimetic parallel signal transmission circuits.</li><li>6. Cellular determinants of brain circuit development and wiring.</li><li>7. Investigation on cellular determinants of Rett Syndrome.</li><li>8. Use of microRNAs to induce specific neuronal subtypes from in vitro reprogrammed human neural progenitors.</li><li>9. Modelling and simulations of optogenetic probes to modulate gene expression and neuronal excitability.</li><li>10. The genetics of high order cognitive dys/functions: relevance to schizophrenia.</li><li>11. Basal Ganglia and Cortical Microcircuits.</li><li>12. Neuromodulation of synaptic and behavioural plasticity in action control.</li><li>13. Computational Approach to Decision-Making.</li><li>14. Characterization of the molecular pathways underlying the Octopus vulgaris arm morphogenesis.</li></ol> For more details please check the following link: <a href="http://www.iit.it/phdschool">http://www.iit.it/phdschool</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:nbtphdcourse@iit.it">nbtphdcourse@iit.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	For further information please write to: <a href="mailto:nbtphdcourse@iit.it">nbtphdcourse@iit.it</a>



## Course in: NEUROSCIENCES

### Curriculum: MOTORY AND SPORTS ACTIVITIES SCIENCES (CODE 5171)

<b>Coordinator:</b> Mancardi Giovanni Luigi	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 400,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	07/11/2013 - 10 a.m., in the Library of the Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI), Largo Daneo 3 - 16132 Genova
<b>Exam syllabus</b>	The interview will be a discussion concerning the candidate's research Programme, which will be evaluated on the basis of content originality, execution modalities, feasibility, its relevance to the themes of the field of research for which this public exam has been announced.
<b>Further information on how to present qualifications</b>	The following will be evaluated: 1. Degree mark; 2. Personal curriculum (including the Degree dissertation); 3. Research experience and scientific publications; 4. Research programme presented by the candidate.
<b>Research themes</b>	The doctoral course will develop research lines concerning the study of: 1. motory performance, motory learning and sensorimotor integration (the kinematics of movement, postural analysis, electrophysiology of movement and of sensorimotor integration, morphologic and functional imaging); 2. sports performance (the methodological approach to sports performance, the interaction between physiological parameters and training methods, the relationship between nutrition and sports performance, the interaction between drugs and the physiology of athletic gestures).
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Giovanni Abbruzzese, e-mail: <a href="mailto:gabbruzzese@neurologia.unige.it">gabbruzzese@neurologia.unige.it</a> Dott.ssa Paola Fenu; <a href="mailto:neurologia@neurologia.unige.it">neurologia@neurologia.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Giovanni Abbruzzese Dipartimento di Neuroscienze, Riabilitazione, Oftalmologia, Genetica e Scienze Materno-Infantili (DINOGMI) Università di Genova Tel. 010-3537039 Fax 010-3538631 E-mail: <a href="mailto:gabbruzzese@neurologia.unige.it">gabbruzzese@neurologia.unige.it</a>

## Course in: CHEMISTRY AND MATERIALS SCIENCES AND TECHNOLOGIES

### Curriculum: DRUG DISCOVERY (CODE 5172)

<b>Coordinator:</b> Saccone Adriana	
Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI)	
<b>Places:</b> 3 - <b>Grants:</b> 3 (*).	
(*) 3 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 350,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	Assessable qualifications/publications: 1. qualifications and relative marks 2. reference letters (not more than three) 3. research project in English 4. curriculum 5. other optional qualifications/publications (masters, post-university qualification courses, publications in international journals, presentations in conferences, patents, study or research awards). All candidates must attach the certificates relative to all their study qualifications at university level, with the corresponding marks, and specify the duration of the study cycles to their application in copies true to the original. Foreign candidates must clearly state the number of years which correspond to each study cycle carried out previous to University enrolment. If admitted to the doctoral course, the candidate will carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	1. Application of biochemical and biophysical tools to characterize potential drug target proteins The candidate should prepare a research proposal describing a series of in vitro and in cells experiments, using suitable biochemical and biophysical approaches, to investigate the structure of a selected disease-linked protein, its function, and its protein interaction network. The application of techniques such as fluorescence, circular dichroism, NMR, EPR spectroscopies, isothermal titration calorimetry or surface plasmon resonance should be considered to achieve the final goal of identifying potential functional or mechanistic failures responsible for, or related to, the selected pathological conditions. 2. Target characterization and inhibitor discovery using structural biophysics approaches Structural Biology and Molecular Biophysics approaches are revolutionizing current preclinical strategies that are used to investigate target biology and to discover novel drugs. Candidates should present a multidisciplinary research project (including background, objectives, strategy, and expected results) that focuses on the functional and structural characterization of a macromolecular protein target and the discovery of small molecules able to modulate its biological activity. 3. Enzymatic catalysis and inhibition of pharmaceutically relevant enzymes Proposals should focus on pharmaceutically relevant enzymes. Research proposals should therefore introduce a drug discovery project, describing how different computational methods can be applied to identify a hit compound and, eventually, reach the status of optimized lead. Toward this end, quantum mechanics, molecular dynamics and QM/MM may be used. The project can be based also on structure-based drug design to identify putative inhibitors of relevant targets for drug discovery, thus including docking and virtual screening, and de novo design of drug-like small molecules.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:PhD_D3@iit.it">PhD_D3@iit.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	Dr. Tiziano Bandiera Tel. +3901071781533 E-mail <a href="mailto:tiziano.bandiera@iit.it">tiziano.bandiera@iit.it</a>  Contact person in administration Dr.ssa Cecilia Cattaneo Tel. +3901071781442 E-mail <a href="mailto:cecilia.cattaneo@iit.it">cecilia.cattaneo@iit.it</a>

**Course in: CHEMISTRY AND MATERIALS SCIENCES AND TECHNOLOGIES****Curriculum: NANOCHEMISTRY (CODE 5173)**

<b>Coordinator:</b> Saccone Adriana	
Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI)	
<b>Places:</b> 9 - <b>Grants:</b> 9 (*)	
(*) 9 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 350,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	Assessable qualifications/publications: 1. qualifications and relative marks 2. reference letters (not more than three) 3. research project in English 4. curriculum 5. other optional qualifications/publications (masters, post-university qualification courses, publications in international journals, presentations in conferences, patents, study or research awards). All candidates must attach the certificates relative to all their study qualifications at university level, with the corresponding marks, and specify the duration of the study cycles to their application in copies true to the original. Foreign candidates must clearly state the number of years which correspond to each study cycle carried out previous to University enrolment. If admitted to the doctoral course, the candidate will carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	1. Optical spectroscopy on colloidal nanocrystals and their superlattices Optical investigation of novel nanocrystals and the resulting films focused on their suitability for nanocrystal based lasers and nonlinear optical switches 2. Magnetic nanoparticles for cancer stem cell targeting Development of colloidal magnetic nanocrystals as nano-platform for combined cancer treatment based on hyperthermia and drug release 3. Synthesis of pH and thermo-responsive polymers and their combination with inorganic nanoparticles for controlled drug delivery Development of pH and thermo responsive polymers for encapsulation and delivery of chemotherapeutic agents 4. Experiment and simulation of (S)TEM images and EEL spectra on complex semiconductor and oxide nanostructures Model-based quantitative analysis of nanostructured systems via high resolution transmission electron microscopy to shed light on their structural properties 5. Novel catalytic materials based on nanocomposites for water gas shift reaction and selective carbon monoxide oxidation New catalysts for CO abatement in hydrogen-rich gases for fuel cells produced through steam reforming of fossil fuels, alcohols or biomasses 6. Nanoparticles for energy storage applications Development of nanocrystals based composite materials for energy storage applications 7. Study of the chemical transformations in nanocrystals for applications in plasmonics and photovoltaics Study of chemical transformations in nanocrystals to prepare nanoscale materials with finely tuned properties for applications in plasmonics and photovoltaics 8. Coupling excitons and plasmons Design and fabrication of hybrid semiconductor-metal nanostructures and investigation of their optoelectronic properties with focus on the coupling of excitons and plasmons 9. Electronic properties of novel two-dimensional materials Study of the optical and electrical properties of 2D materials beyond graphene, e. g. layered dichalcogenides obtained by chemical synthesis
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:phd_nach@iit.it">phd_nach@iit.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Further information</b>	Contact person in administration Dr.ssa Iulia Manolache Tel: +3901071781718 <a href="mailto:iulia.manolache@iit.it">iulia.manolache@iit.it</a>

## Course in: SCIENCE AND TECHNOLOGY OF CHEMISTRY AND MATERIALS

### Curriculum: SCIENCE AND TECHNOLOGY OF MATERIALS (CODICE 5174)

<b>Coordinator:</b> Saccone Adriana	
Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI)	
<b>Places:</b> 6 - <b>Grants:</b> 3 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*) 1 grant as per Ministerial Decree 198/03 main field of research "New applications in the biomedical industry", the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 350,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	07/11/2013 - 9 a.m. at the Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI), via Dodecaneso 31 - 16146 Genoa Candidates who live more than 300 km away from Genoa may use the video-conference modality. Candidates must show an original document of identity, a copy of which will have been submitted with the application for identification purposes. The motivated request for video-conference modality must be sent within and not beyond 31/10/2013 by means of an email to the address: <a href="mailto:putti@fisica.unige.it">putti@fisica.unige.it</a>
<b>Exam syllabus</b>	During the interview candidates will be requested to illustrate the research project they presented. The Examining Commission will examine content originality, feasibility and execution modalities of the Project, as well as its relevance to the research themes of this public exam, in order to evaluate the candidate's ability to develop a research project. Knowledge of English will also be verified during the interview.
<b>Further information on how to present qualifications</b>	Assessable qualifications/publications: 1. qualifications and relative marks 2. reference letters (not more than three) 3. research project in Italian or English 4. curriculum 5. other optional qualifications/publications (masters, post-university qualification courses, publications in international journals, presentations in conferences, patents, study or research awards). All candidates must attach the certificates relative to all their study qualifications at university level, with the corresponding marks, and specify the duration of the study cycles to their application in copies true to the original. Foreign candidates must clearly state the number of years which correspond to each study cycle carried out previous to University enrolment. If admitted to the doctoral course, the candidate will carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	Experimental investigation and analysis of the modelling of metallic materials, alloys, oxides, ceramic, polymeric, composite, biomolecular and biocompatible materials. Correlations between methods of production (synthesis, film deposition, crystal growth), structural, morphological, and chemical-physical characteristics and functional properties will be studied. As far as functional aspects are concerned, materials for photonics and plasmons, high temperature superconductors, materials for the production and storage of hydrogen, heterogeneous catalyst materials, electronic and magnetic devices, protective coatings, biomaterials will be studied. Characterization will concern structural, electronic and morphologic properties even in the form of films and multilayers, thin and ultrathin, with regard to growth mechanisms and nanostructuring. Crystal-chemical, electrochemical, thermal, magnetic and transport properties, and the microscopic study of tribological processes will also be taken into consideration. The technological aspects of new industrial, environmental and metallurgical catalytic processes will be studied and developed. All the above-mentioned themes will be developed both in the field of basic research and that of applied research (industrial processes, sensors, devices, conservation of the cultural heritage etc.).
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:putti@fisica.unige.it">putti@fisica.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Marina Putti Tel. +390103536383 E-mail <a href="mailto:putti@fisica.unige.it">putti@fisica.unige.it</a>  Contact person in administration Mrs Noemi Pretelli Tel. +390103536161/8752 E-mail <a href="mailto:noemi@chimica.unige.it">noemi@chimica.unige.it</a>

## Course in: SCIENCE AND TECHNOLOGY OF CHEMISTRY AND MATERIALS

### Curriculum: CHEMICAL SCIENCES AND TECNOLOGIES (CODE 5175)

<b>Coordinator:</b> Saccone Adriana	
Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI)	
<b>Places:</b> 8 - <b>Grants:</b> 4 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 3 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
(*) 1 grant as per Ministerial Decree 198/03 main field of research – “Enhancement of the typical products of agricultural foodstuff and food safety by means of new systems concerning characteristics and quality guarantees”, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 350,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 9 a.m. at the Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI), via Dodecaneso 31 - 16146 Genova Candidates who live more than 300 km away from Genoa may use the video-conference modality. Candidates must show an original document of identity, a copy of which will have been submitted with the application for identification purposes. The motivated request for video-conference modality must be sent within and not beyond 31/10/2013 by means of an email to the address: <a href="mailto:Adriana.Saccone@unige.it">Adriana.Saccone@unige.it</a>
<b>Exam syllabus</b>	During the interview candidates will be requested to illustrate the research project they presented. The Examining Commission will examine content originality, feasibility and execution modalities of the Project, as well as its relevance to the research themes of this public exam, in order to evaluate the candidate's ability to develop a research project. Knowledge of English will also be verified during the interview.
<b>Further information on how to present qualifications</b>	Assessable qualifications/publications: 1. qualifications and relative marks 2. reference letters (not more than three) 3. research project in Italian or English 4. curriculum 5. other optional qualifications/publications (masters, post-university qualification courses, publications in international journals, presentations in conferences, patents, study or research awards). All candidates must attach the certificates relative to all their study qualifications at university level, with the corresponding marks, and specify the duration of the study cycles to their application in copies true to the original. Foreign candidates must clearly state the number of years which correspond to each study cycle carried out previous to University enrolment. If admitted to the doctoral course, the candidate will carry out his/her activity within the syllabus chosen for his/her project, but not necessarily on specific activities described in the actual project.
<b>Research themes</b>	<ol style="list-style-type: none"><li>1. Chemistry and Physical Chemistry of photoactive materials</li><li>2. Nanoparticles for technological applications</li><li>3. Synthesis and study of crystal-chemical, thermal, magnetic properties and transport of oxides, nitrides and carbides</li><li>4. Determination of chemical species of environmental and oceanographic interest</li><li>5. Development of chromatographic innovative methodologies coupled with mass spectrometry</li><li>6. Analytical studies concerning the employment of techniques of atomic spectrometry</li><li>7. Chemical, enzymatic and organocatalytic synthesis of biologically active compounds</li><li>8. Synthesis and reactivity of heterocyclic compounds</li><li>9. Phase equilibria and thermodynamics of metallic materials: experimental and theoretical aspects</li><li>10. Intermetallic compounds: synthesis, structure, properties and technological applications</li><li>11. Advanced metallic materials</li><li>12. Hybrids polymeric materials and nanocompounds</li><li>13. Polymeric nanostructures for photonics</li><li>14. Membranes and membrane processes and of matrix</li><li>15. Chemistry for the study and preservation of the cultural heritage</li></ol>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:Adriana.Saccone@unige.it">Adriana.Saccone@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Adriana Saccone Tel. +390103536154 E-mail <a href="mailto:Adriana.Saccone@unige.it">Adriana.Saccone@unige.it</a>  Contact person in administration Mrs Noemi Pretelli Tel. +390103536161/8752 E-mail <a href="mailto:noemi@chimica.unige.it">noemi@chimica.unige.it</a>

**Course in: SCIENCE AND TECHNOLOGY OF CHEMISTRY AND MATERIALS****Curriculum: PHARMACEUTICAL, NUTRITIONAL AND COSMETIC SCIENCES (CODE 5176)**

<b>Coordinator:</b> Saccone Adriana	
Department of Chemistry and Industrial Chemistry (Dipartimento di Chimica e Chimica Industriale - DCCI)	
<b>Places:</b> 8 - <b>Grants:</b> 4 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 4 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 350,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	07/11/2013 - 9.30 a.m. at the Department of Pharmacy (Dipartimento di Farmacia - DIFAR, former venue of DISCIFAR), viale Benedetto XV, 3 - 16132 Genova. Candidates who live more than 300 km away from Genoa may use the video-conference modality. Candidates must show an original document of identity, a copy of which will have been submitted with the application for identification purposes. The motivated request for video-conference modality must be sent within and not beyond 31/10/2013 by means of an email to the address: <a href="mailto:silvia@difar.unige.it">silvia@difar.unige.it</a>
<b>Exam syllabus</b>	Basic knowledge of Pharmaceutical and Toxicological Chemistry, Chemiometry, Organic and Macromolecular Chemistry, Phytochemistry, Pharmacognosy, Pharmaceutical Technology, the Chemistry of Cosmetic Products, Foods Chemistry and Chemistry of Diet Products. Discussion of the degree dissertation and the research themes proposed.
<b>Further information on how to present qualifications</b>	Besides the usual qualifications/publications, the following are also required: 1. A Curriculum vitae et studiorum. It must comprise information on the name/type and mark of the degree or an equivalent qualification (except for final year students who have enrolled conditionally), the title and a brief description of the thesis (where requested), as well as a list of exams and their marks. The Curriculum vitae may be in Italian or English. 2. A signed research project concerning the research theme of the doctoral course object of the application (maximum 10 pages, in Italian or English); 3. Any other qualifications/publications, certifications, deemed useful for admission (optional).
<b>Research themes</b>	1) Study of active principles of natural origin and their structural modifications. 2) Design, synthesis and evaluation of the biologic activity of compounds of potential therapeutic interest such as antineoplastic and antiviral drugs. 3) Design, synthesis and evaluation of the biological activity of compounds with potentially active on the cardiovascular system. 4) Design, synthesis and evaluation of the biological activity of new selective PDE 4 inhibitors for the treatment of neurodegenerative pathologies. 5) Advanced computational methodological applications for the study of the ligando-receptor and ligando-enzyme interaction at molecular level. 6) Food and diet food safety: singling out of beneficial and harmful substances. 7) Micro and nanostructured functional copolymers of biochemical and pharmaceutical interest, and innovative reactive polymers for supported organic synthesis and combinatorial chemistry aimed at finding new bioactive principles. 8) Bioadhesive pharmaceutical forms, colloidal systems for the release and direction of pharmaceuticals. 9) Development of chemometric methods and applications. Multivariate calibration for spectrometry, electronic nose and tongue. Experimental design. 10) Search for biologically active phytoconstituents. 11) Study of biogeochemical cycles of trace elements: presence, distribution and bioaccumulation in living organisms; effects on the food chain. 12) Application of microwave technology in organic and inorganic synthesis and methodologies of reaction without solvent as "Green Chemistry" procedures. 13) Application of microwaves for the preparation of the analytical sample in the study of active principles of botanical origin and in the analysis of cosmetic products.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:silvia@difar.unige.it">silvia@difar.unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Silvia Lanteri Tel. +390103532634 E-mail <a href="mailto:silvia@difar.unige.it">silvia@difar.unige.it</a>  Contact person in administration Mrs Noemi Pretelli Tel. +390103536161/8752 E-mail <a href="mailto:noemi@chimica.unige.it">noemi@chimica.unige.it</a>

## Course in: SCIENCE AND TECHNOLOGY FOR THE ENVIRONMENT AND TERRITORY (STAT)

### Curriculum: BOTANY APPLIED TO AGRICULTURE AND THE ENVIRONMENT (CODE 5177)

<b>Coordinator:</b> Firpo Marco	
Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della Terra, dell'Ambiente e della Vita - DISTAV)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 - The interviews will take place 6 and 7 November 2013, in Room Perrier (Aula Perrier) of the Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della terra, dell'ambiente e della vita – DISTAV), Corso Europa 26 - 16132 Genova
<b>Exam syllabus</b>	The interview will be on the activities carried out by the Candidate and on his/her capacity to use work tools and experimental methods relative to the research field of the project presented.
<b>Further information on how to present qualifications</b>	Please note that the choice of the theme of the research project will not change the graduate student's legal status concerning the object of the research activity that will be carried out during the doctoral course, according to the Teaching Body's indications. The information in the application and in its attached documents are what is meant by qualification/publications. The following documents must be attached to the application: a) a curriculum vitae et studiorum (maximum 10 pages long); b) a research project relative to one or more of the themes of the doctoral course object of the application (maximum 10 pages long); c) a document containing the title of the degree dissertation and a brief description of it, as well as a list of the exam and marks (maximum 10 pages long); d) any other qualifications/publications relative to the research themes dealt with in the doctoral course (maximum 10 pages); e) at least one and no more than three reference letters. In addition to English and Italian stated in the general Notice of Public Exam, candidates may submit their applications and documentation in Spanish or French.
<b>Research themes</b>	a) Biodiversity and food products: characterization of honeys, floral biology, environmental monitoring and conservation. b) Use of conventional and non conventional natural resources for the biological and integrated battle in Mediterranean agriculture. c) Bioaccumulation and Phyto/Myco-remediation d) Re-utilization of agricultural sub-products on the basis of their biological properties.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Marco Firpo (DiSTAV) Dipartimento di Scienze della Terra, dell'Ambiente e della Vita. Università di Genova. Corso Europa 26 - 16132 Genova, Italy ( <a href="mailto:firpo@dipteris.unige.it">firpo@dipteris.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Mauro Mariotti Polo Botanico Hanbury, Dipartimento di Scienze della Terra, dell'Ambiente e della Vita, Corso Dogali 1M, 16126 Genova . ( <a href="mailto:m.mariotti@unige.it">m.mariotti@unige.it</a> )

**Course in: SCIENCE AND TECHNOLOGY FOR THE ENVIRONMENT AND TERRITORY (STAT)****Curriculum: ORGANISMS AND THE ENVIRONMENT (CODE 5178)**

<b>Coordinator:</b> Firpo Marco	
Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della Terra, dell'Ambiente e della Vita - DISTAV)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant based on funds from MIUR/ Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della terra, dell'ambiente e della vita – DISTAV), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 - The interviews will take place 6 and 7 November 2013, in Room Perrier (Aula Perrier) of the Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della terra, dell'ambiente e della vita – DISTAV), Corso Europa 26 - 16132 Genova
<b>Exam syllabus</b>	The interview will be on the activities carried out by the Candidate and on his/her capacity to use work tools and experimental methods relative to the research field of the project presented.
<b>Further information on how to present qualifications</b>	Please note that the choice of the theme of the research project will not change the graduate student's legal status concerning the object of the research activity that will be carried out during the doctoral course, according to the Teaching Body's indications. The information in the application and in its attached documents are what is meant by qualification/publications. The following documents must be attached to the application: a) a curriculum vitae et studiorum (maximum 10 pages long); b) a research project relative to one or more of the themes of the doctoral course object of the application (maximum 10 pages long); c) a document containing the title of the degree dissertation and a brief description of it, as well as a list of the exam and marks (maximum 10 pages long); d) any other qualifications/publications relative to the research themes dealt with in the doctoral course (maximum 10 pages); e) at least one and no more than three reference letters. In addition to English and Italian stated in the general Notice of Public Exam, candidates may submit their applications and documentation in Spanish or French.
<b>Research themes</b>	1) Study of microbial communities and their functions in the environment. 2) Development of new technologies for the research and characterization on a clonal level of environmental pathogenic microorganisms. 3) Evolutionary study of cellular and molecular interactions between living beings and mineral matrixes. 4) Study of the different aspects of the physiology of organisms in relation to the multiple environmental variables. 5) Endocrine interferents and mankind and environmental health; neuroendocrine regulation of functions: modulation of endogenous and environmental factors. 6) "In vitro" expression and characterization of proteins with possible applications in the environment. 7) Study and characterization of natural compounds (e.g. secondary metabolites of sea organisms) and their possible biological activity.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof Marco Firpo (DiSTAV) Dipartimento di Scienze della Terra, dell'Ambiente e della Vita Università di Genova Corso Europa 26 16132 Genova, Italy ( <a href="mailto:firpo@dipteris.unige.it">firpo@dipteris.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Carla Pruzzo Dipartimento di Scienze della terra, dell'ambiente e della vita (DISTAV) Telephone:(+39) 010 353 - 8251 (+39) 010 353 - 7753 Fax: (+39) 010 353 - 8267 E-mail: <a href="mailto:Carla.Pruzzo@unige.it">Carla.Pruzzo@unige.it</a>



**Course in: SCIENCE AND TECHNOLOGY FOR THE ENVIRONMENT AND TERRITORY (STAT)****Curriculum: MARINE SCIENCE (CODE 5179)**

<b>Coordinator:</b> Firpo Marco	
Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della Terra, dell'Ambiente e della Vita - DISTAV)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 - The interviews will take place 6 and 7 November 2013, in Room Perrier (Aula Perrier) of the Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della terra, dell'ambiente e della vita – DISTAV), Corso Europa 26 - 16132 Genova
<b>Exam syllabus</b>	The interview will be on the activities carried out by the Candidate and on his/her capacity to use work tools and experimental methods relative to the research field of the project presented.
<b>Further information on how to present qualifications</b>	Please note that the choice of the theme of the research project will not change the graduate student's legal status concerning the object of the research activity that will be carried out during the doctoral course, according to the Teaching Body's indications. The information in the application and in its attached documents are what is meant by qualification/publications. The following documents must be attached to the application: a) a curriculum vitae et studiorum (maximum 10 pages long); b) a research project relative to one or more of the themes of the doctoral course object of the application (maximum 10 pages long); c) a document containing the title of the degree dissertation and a brief description of it, as well as a list of the exam and marks (maximum 10 pages long); d) any other qualifications/publications relative to the research themes dealt with in the doctoral course (maximum 10 pages); e) at least one and no more than three reference letters. In addition to English and Italian stated in the general Notice of Public Exam, candidates may submit their applications and documentation in Spanish or French.
<b>Research themes</b>	The research themes can be summarized as follows: a) The study of marine biodiversity and its distribution also with reference to the evaluation of conservation interventions, both planned and already in course. Description of the structure and dynamics of benthic communities both of the hard and soft substrata and their relationship with the water column. Study of the plankton communities and trophic state of the water column. b) Study and monitoring of fishing both traditional and industrial with special reference to the Ligurian Sea (Mar Ligure). Study of the biology of fish species and of the great pelagic organisms. Study of the impact of fishing on the benthic communities. c) Marine geology and geomorphology and analysis and management of coastal areas. d) Study of climate change effects at basin level on Mediterranean communities. Study of alien species. Ecology of toxic microalgae. e) Evaluation of the biological responses to persistent and emerging pollutants on organisms and communities in the scenario of global climate change. Use and development of environmental stress biomarkers in sentinel organisms in biomonitoring programmes for the evaluation of the state of health of the coastal marine environment. f) Experimental aquaculture; management of infectious diseases caused by pathogen agents in species of edible molluscs subject to mass death. g) Development of protocols, techniques and instruments for the environmental management of marine areas (software and hardware).
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof Marco Firpo (DiSTAV) Dipartimento di Scienze della Terra, dell'Ambiente e della Vita Università di Genova Corso Europa 26 16132 Genova, Italy ( <a href="mailto:firmo@dipteris.unige.it">firmo@dipteris.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Roberto Pronzato Dipartimento di Scienze della terra, dell'ambiente e della vita (DISTAV) Telephone:(+39) 010 353 - 8177 E-mail: <a href="mailto:pronzato@dipteris.unige.it">pronzato@dipteris.unige.it</a>

**Course in: SCIENCE AND TECHNOLOGY FOR THE ENVIRONMENT AND TERRITORY (STAT)****Curriculum: EARTH SCIENCES 5180)**

<b>Coordinator:</b> Firpo Marco	
Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della Terra, dell'Ambiente e della Vita - DISTAV)	
<b>Places:</b> 4 – <b>Grants:</b> 2 (*)	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 - The interviews will take place 6 and 7 November 2013, in Room Perrier (Aula Perrier) of the Department of Earth, Environmental and Life Sciences (Dipartimento di Scienze della terra, dell'ambiente e della vita – DISTAV), Corso Europa 26 - 16132 Genova
<b>Exam syllabus</b>	The interview will be on the activities carried out by the Candidate and on his/her capacity to use work tools and experimental methods relative to the research field of the project presented.
<b>Further information on how to present qualifications</b>	Please note that the choice of the theme of the research project will not change the graduate student's legal status concerning the object of the research activity that will be carried out during the doctoral course, according to the Teaching Body's indications. The information in the application and in its attached documents are what is meant by qualification/publications. The following documents must be attached to the application: a) a curriculum vitae et studiorum (maximum 10 pages long); b) a research project relative to one or more of the themes of the doctoral course object of the application (maximum 10 pages long); c) a document containing the title of the degree dissertation and a brief description of it, as well as a list of the exam and marks (maximum 10 pages long); d) any other qualifications/publications relative to the research themes dealt with in the doctoral course (maximum 10 pages); e) at least one and no more than three reference letters. In addition to English and Italian stated in the general Notice of Public Exam, candidates may submit their applications and documentation in Spanish or French.
<b>Research themes</b>	The research themes of the syllabus are oriented at describing and interpreting endogenous and exogenous processes of the system Earth, integrating the vast spectrum of geosciences (disciplinary fields such as geology, geomorphology, mineralogy, crystallography, geochemistry, structural geology, petrology, mining geology, stratigraphy, paleontology, geophysics). The main objective of the syllabus is to create professional figures and young researchers capable of using advanced scientific competences and analytical frontier technologies to describe and model the processes that regulate endogenous and exogenous earth dynamics, as well as lithosphere-biosphere and lithosphere-hydrosphere interactions. The research themes can be summarized in detail in the following points: a) study and modelling of the chemical and tectonic evolution of the lithosphere in convergent and extensional environments; b) study of the processes responsible for the genesis and evolution of the relief forms of the land; c) finding and use of natural resources (water, energy producing, mineral and lithoid), and the management and enhancement of the relative residues; d) evaluation and mitigation of the geological and geoenvironmental risks deriving from catastrophic events both natural and man-made; e) defence planning of the territory and territorial planning; f) conservation of the natural-landscape, archaeological-monument heritage and the cultural heritage; g) determining and forecasting geomaterial behaviour (mineral and rocks) at various temperatures and pressures as a contribution to the solution of both scientific and application problems; h) interdisciplinary study of the interaction of mineral phases with the biosphere and the consequent releasing, transport and capturing processes of organic and inorganic chemical species (elements, complex, molecules) in the environment.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof Marco Firpo (DISTAV) Dipartimento di Scienze della Terra, dell'Ambiente e della Vita Università di Genova Corso Europa 26 16132 Genova, Italy ( <a href="mailto:firpo@dipteris.unige.it">firpo@dipteris.unige.it</a> ) The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Marco Firpo Dipartimento di Scienze della terra, dell'ambiente e della vita (DISTAV) Telephone: (+39) 010353 - 8272 E-mail: <a href="mailto:firpo@dipteris.unige.it">firpo@dipteris.unige.it</a> Cell. 3201812987

## Course in: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, MARINE ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY

### Curriculum: ELECTRICALAL ENGINEERING (CODE 5181)

<b>Coordinator:</b> Massucco Stefano	
Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Places:</b> 6 - <b>Grants:</b> 3 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 3 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	<ol style="list-style-type: none"> <li>The information in the application and in the curriculum vitae et studiorum</li> <li>The reference letters (at least one and not more than three reference letters for the candidate signed by a university teacher or an expert in the field)</li> <li>The research project</li> <li>Other qualifications/publications</li> </ol> <p>The latter information (points 3 and 4) must not be more than 10 pages. The research project will be on one of the themes in the list of RESEARCH THEMES., Furthermore please note that:</p> <ol style="list-style-type: none"> <li>Candidates can submit their applications and documentation either in Italian or English;</li> <li>The dissertation title is required together with a brief description; a list of exams and the marks.</li> </ol>
<b>Research themes</b>	(A) Automation: industrial, of processes and transport. Models of producer plants. Management, monitoring and control of electrical systems. Innovative techniques and optimization for the design of electromagnetic devices. Electrical working for robotics, manufacturing automation and processes. Advanced applications of instruments and camp buses. (B) Energy: Protection against electrostatic hazards. Evaluation of isolation defects with measurement of partial discharges. Technical and economic evaluations for market energy. Distributed generation. Service quality. Design of switches, machines, electrical actuator and magnetic devices for energy storage. Static energy convertors. (C) Electronics: Model systems and electronic power components. Advanced control techniques for converters. Advanced control techniques against electrostatic discharges from electronic devices. Models of complex systems. Analysis and synthesis of circuits and non linear dynamic systems. Neural networks. Electronic systems design. (D) Industrial electromagnetic compatibility: electromagnetic compatibility among electrical, power electronic and communications systems. Models, simulations and measuring methods. Numeric current (electrical) models of lightning. Electromagnetic models with full Maxwell approach. (E) Transport: Models for RAMS forecasting analysis. Electrified systems for public transport. Electrical working for traction and for marine propulsion. (F) Environment: Numeric simulation and measuring and field reduction techniques. Optimized design of low emission devices. Systems with low environmental impact.
<b>Information on references</b>	<p>Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:</p> <p>Prof. Stefano Massucco University of Genova DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) IEES - Intelligent Electric Energy Systems Laboratory via all'Opera Pia, 11a – 16145 Genova, Italy Email: <a href="mailto:stefano.massucco@unige.it">stefano.massucco@unige.it</a></p> <p>Emanuela De Pasquale DITEN <a href="mailto:emanuela.depasquale@unige.it">emanuela.depasquale@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.</p>
<b>Further information</b>	<p>Prof. Stefano Massucco University of Genova DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) IEES - Intelligent Electric Energy Systems Laboratory via all'Opera Pia, 11a, I-16145 - Genova, Italy Email: <a href="mailto:stefano.massucco@unige.it">stefano.massucco@unige.it</a> Tel: +39-010-353-2718; fax: +39-010-353-2700; mobile: +39-329-2106116</p> <p>Emanuela De Pasquale (DITEN) <a href="mailto:emanuela.depasquale@unige.it">emanuela.depasquale@unige.it</a> ; tel: +39-010-35327005</p>

**Course in: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, MARINE ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY**

**Curriculum: MARINE ENGINEERING (CODE 5182)**

<b>Coordinator:</b> Massucco Stefano	
Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
(*)1 grant as per Ministerial Decree 198/03 main field of research “Shipbuilding, aeronautics, helicopter engineering with a high foreign market penetration capacity”, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	<ol style="list-style-type: none"> <li>The information in the application and in the curriculum vitae et studiorum</li> <li>The reference letters (at least one and not more than three reference letters for the candidate signed by a university teacher or an expert in the field)</li> <li>The research project</li> <li>Other qualifications/publications</li> </ol> <p>The latter information (points 3 and 4) must not be more than 10 pages. The research project will be on one of the themes in the list of RESEARCH THEMES., Furthermore please note that:</p> <ol style="list-style-type: none"> <li>Candidates can submit their applications and documentation either in Italian or English; The dissertation title is required together with a brief description; a list of exams and the marks.</li> </ol>
<b>Research themes</b>	<p>Marine Architecture Sector: Study and application of methods to evaluate movements of the ship, of the dynamic cargoes and of the added resistance. Study and application of experimental and numeric methods for the manoeuvrability of the ship; Dynamic positioning and station keeping. SPH methods for the simulation of non-stationary hydrodynamic fluxes with free surface. Study of cavitating phenomena of marine propellers and of their effect in terms of induced pressure and radiated noise. Development of solutions for viscous flows related to ships on the basis of open source libraries. Study and development of design methods for special propellers. Coupling of “meshless” methodologies and contour element methods for the analysis of strictly non linear dynamic phenomena in undulatory motion. Optimization of the ship’s hydrodynamic performances. Control means of rolling motion; study of the hydrodynamic performances of innovative marine vehicles.</p> <p>Marine Constructions and Plants Sector: Study and design of offshore floating wind turbines. Fatigue of ship structures and components. Determination of the loads to be applied to a hull fem model. Study of marine structures in composite materials. Probabilistic methods for the marine constructions; Reliability of marine structures and risk analysis; Environmental impact of ships and boats. Ship vulnerability. Methods to optimize marine structures. Extension of the operative life of marine and off-shore structures. Design and construction methods to increase competitiveness in national shipbuilding. Condition monitoring of plants and management of marine maintenance; Simulation and optimization of marine propelling systems. Fluid-structure interaction: applications in marine engineering with possible reference to sailing systems; Activations for marine systems.</p>
<b>Information on references</b>	<p>Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Dario Bruzzone University of Genova DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) via all'Opera Pia, 11a - 16145 - Genova, Italy Email: <a href="mailto:bruzzone@dinav.unige.it">bruzzone@dinav.unige.it</a></p> <p>Emanuela De Pasquale (DITEN) <a href="mailto:emanuela.depasquale@unige.it">emanuela.depasquale@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.</p>
<b>Further information</b>	<p>Prof. Dario Bruzzone University of Genova DITEN (Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture) via all'Opera Pia, 11a -16145 - Genova, Italy Email: <a href="mailto:bruzzone@dinav.unige.it">bruzzone@dinav.unige.it</a> Tel: +39-010-353-2427; fax: +39-010-353-2700</p> <p>Emanuela De Pasquale DITEN <a href="mailto:emanuela.depasquale@unige.it">emanuela.depasquale@unige.it</a>; tel: +39-010-35327005</p>

**Course in: SCIENCE AND TECHNOLOGY FOR ELECTRICAL ENGINEERING, MARINE ENGINEERING, COMPLEX SYSTEMS FOR MOBILITY**

**Curriculum: COMPLEX SYSTEMS FOR MOBILITY (CODE 5183)**

<b>Coordinator:</b> Massucco Stefano	
Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
<b>Places in excess available to persons with a foreign degree:</b> 1 (without grant).	
(*) 1 grant funded by the Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 300,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS
<b>Further information on how to present qualifications</b>	<ol style="list-style-type: none"> <li>The information in the application and in the curriculum vitae et studiorum</li> <li>The reference letters (at least one and not more than three reference letters for the candidate signed by a university teacher or an expert in the field)</li> <li>The research project</li> <li>Other qualifications/publications</li> </ol> <p>The latter information (points 3 and 4) must not be more than 10 pages. The research project will be on one of the themes in the list of RESEARCH THEMES., Furthermore please note that:</p> <ol style="list-style-type: none"> <li>Candidates can submit their applications and documentation either in Italian or English; The dissertation title is required together with a brief description; a list of exams and the marks.</li> </ol>
<b>Research themes</b>	(A) Complex systems of electrical engineering and marine engineering: electrical networks, marine systems, automation plants. (B) Mobility of people and goods: planning features (for example relative to TPL local public transport, to city logistics, etc. ), simulations, of “intelligent” transport systems (mobility information, AVI, communication V2V, V2I, etc.), of the evaluation of external costs of transport. (C) Maritime and marine transport systems: support systems for navigation safety and development of planning technologies and systems to support European policies of “Integrated Coastal Zone Management” and of “Maritime Spatial Planning”. (D) Components and technological systems for transport means which allow the reduction of external costs of transport and the raising of safety levels: electric propulsion systems for electric and hybrid vehicles on wheels and on rail, management of energy fluxes of these vehicles, modelling for RAMS forecasting analysis, management and control systems of guided driving, electronic and electric working for traction. (E) Design and construction of models of complex systems: formulation/identification of mathematical models (starting from experimental data) and their analysis and numeric simulation. The models will mainly refer to the electrical and marine sector, but they may concern more general issues, the solutions of which concern applications for these sectors (for example, electrical activity of neuron networks or circuits).
<b>Information on references</b>	<p>Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address:</p> <p>Prof. Riccardo Bozzo <a href="mailto:riccardo.bozzo@unige.it">riccardo.bozzo@unige.it</a> DITEN via all’Opera Pia 11a - 16145 Genova, Italy</p> <p>Emanuela De Pasquale DITEN <a href="mailto:emanuela.depasquale@unige.it">emanuela.depasquale@unige.it</a>; tel: +39-010-35327005 The name, status and service place of the referees chosen by the candidates must be stated in their applications.</p>
<b>Further information</b>	<p>Prof. Riccardo Bozzo <a href="mailto:riccardo.bozzo@unige.it">riccardo.bozzo@unige.it</a> DITEN via all’Opera Pia 11a - 16145 Genova, Italy +39-010-3532725; fax: +39-010-3532700; 329 2106107</p> <p>Emanuela De Pasquale DITEN <a href="mailto:emanuela.depasquale@unige.it">emanuela.depasquale@unige.it</a>; tel: +39-010-35327005</p>

# Course in: SCIENCE AND TECHNOLOGY FOR ELECTRONIC AND TELECOMMUNICATIONS ENGINEERING

## Curriculum: INTERACTIVE COGNITIVE ENVIRONMENTS (CODE 5184)

<b>Coordinator:</b> Marchese Mario	
Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	06/11/2013 - 9 a.m., at the Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN) Università di Genova, Via Opera Pia 11A - 16145 Genova
<b>Exam syllabus</b>	The interview aims at evaluating the candidates' knowledge in relation to the listed research themes, and their methodological capacity to deal with research issues. Furthermore the interview will be on the themes of the research project presented by the candidate. The interviews may also take place with computers via Skype video conference (for identity purposes). Requests must be sent by email to the Coordinator of the Doctoral Course, Prof. Mario Marchese, <a href="mailto:mario.marchese@unige.it">mario.marchese@unige.it</a> , stating the Skype address.
<b>Research themes</b>	Assistive Technologies for Health and Autonomous Living, Network Embedded System, People Inspired Technologies.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:mario.marchese@unige.it">mario.marchese@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Mario Marchese DITEN - Università di Genova Via Opera Pia 13 16145, Genova, Italy Ph. +39-010-3536571 (office)  Ufficio Didattica del Dipartimento DITEN (Didactic Office of the DITEN Department) Ufficio Didattica DITEN - Università di Genova Via Opera Pia 13 16145, Genova, Italy <a href="mailto:uff.didattica@diten.unige.it">uff.didattica@diten.unige.it</a>

**Course in: SCIENCE AND TECHNOLOGY FOR ELECTRONIC AND TELECOMMUNICATIONS ENGINEERING**

**Curriculum: ELECTROMAGNETISM, ELECTRONICS, TELECOMMUNICATIONS (CODE 5185)**

<b>Coordinator:</b> Marchese Mario	
Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Places:</b> 8 - <b>Grants:</b> 4 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 2 (without grant).	
(*) 4 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 9 a.m., at the Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN), Università di Genova, Via Opera Pia 11A - 16145 Genova
<b>Exam syllabus</b>	The interview aims at evaluating the candidates' knowledge in relation to the listed research themes, and their methodological capacity to deal with research issues. Furthermore the interview will be on the themes of the research project presented by the candidate. The interviews may also take place with computers via Skype video conference (for identity purposes). Requests must be sent by email to the Coordinator of the Doctoral Course, Prof. Mario Marchese, <a href="mailto:mario.marchese@unige.it">mario.marchese@unige.it</a> , stating the Skype address.
<b>Research themes</b>	Electronics, Telecommunications, Electromagnetism, Electrotechnics, Electrical and electronic measures.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:mario.marchese@unige.it">mario.marchese@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Mario Marchese DITEN - Università di Genova Via Opera Pia 13 16145, Genova, Italy Ph. +39-010-3536571 (office)  Ufficio Didattica del Dipartimento DITEN (Didactic Office of the DITEN Department) Ufficio Didattica DITEN - Università di Genova Via Opera Pia 13 16145, Genova, Italy <a href="mailto:uff_didattica@diten.unige.it">uff_didattica@diten.unige.it</a>

**Course in: SCIENCE AND TECHNOLOGY FOR ELECTRONIC AND TELECOMMUNICATIONS ENGINEERING**

**Curriculum: COMPUTATIONAL VISION, AUTOMATIC RECOGNITION AND LEARNING (CODE 5186)**

<b>Coordinator:</b> Marchese Mario	
Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN)	
<b>Places:</b> 10 - <b>Grants:</b> 5 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 5 grants funded by the Foundation of the Italian Institute of Technology (Fondazione Istituto Italiano di Tecnologia), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €16.500,00	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	04/11/2013 - 9 a.m., at the Department of Marine, Electrical, Electronic and Telecommunications Engineering (Dipartimento di Ingegneria navale, elettrica, elettronica e delle telecomunicazioni - DITEN), Università di Genova, Via Opera Pia 11A - 16145 Genova
<b>Exam syllabus</b>	The interview aims at evaluating the candidates' knowledge in relation to the listed research themes, and their methodological capacity to deal with research issues. Furthermore the interview will be on the themes of the research project presented by the candidate. The interviews may also take place with computers via Skype video conference (for identity purposes). Requests must be sent by email to the Coordinator of the Doctoral Course, Prof. Mario Marchese, <a href="mailto:mario.marchese@unige.it">mario.marchese@unige.it</a> , stating the Skype address.
<b>Research themes</b>	Multimedia disciplines, in particular in the emerging field of Computer Vision, the recognition of patterns such as signals, images, numerical data and symbols in general - Pattern Recognition - and Machine Learning.  The specific themes are available at the following address: <a href="https://pavisdata.iit.it/data/phd2013/ResearchThemes.pdf">https://pavisdata.iit.it/data/phd2013/ResearchThemes.pdf</a>
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:mario.marchese@unige.it">mario.marchese@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Mario Marchese DITEN - Università di Genova Via Opera Pia 13 16145, Genova, Italy Ph. +39-010-3536571 (office)  Ufficio Didattica del Dipartimento DITEN (Didactic Office of the DITEN Department) Ufficio Didattica DITEN - Università di Genova Via Opera Pia 13 16145, Genova, Italy <a href="mailto:uff_didattica@diten.unige.it">uff_didattica@diten.unige.it</a>



## Course in: PAEDIATRIC SCIENCES

### Curriculum: ENDOCRINOLOGY AND DIABETOLOGY (CODE 5187)

<b>Coordinator:</b> Ravazzolo Roberto	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINO GMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*)	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 2 p.m., Wing 16 (Padiglione 16), G. Gaslini Institute (Istituto G. Gaslini), Secretarial Office of the Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINO GMI), Largo G. Gaslini 5 – 16147 Genova
<b>Exam syllabus</b>	Contents of the interview: - previous research experience, including research carried out for the degree dissertation; - ideas for projects; - knowledge of basic methodologies for clinical and laboratory research; - ITC knowledge; - knowledge of English.
<b>Research themes</b>	Study of new methods to diagnose and treat endocrine and metabolic pathologies in children and adolescents, with special attention to diseases of the hypothalamus and hypophysis which concern the network of the complex metabolic system, to the pathologies of the median line associated to endocrine pathologies and to the various organ diseases, including diabetes mellitus.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Roberto Ravazzolo Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili (DINO GMI) Telephone: (+39) 010 5636 400, (+39) 010 5636 370 E-mail: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a>

**Course in: PAEDIATRIC SCIENCES****Curriculum: GENETICS (CODE 5188)**

<b>Coordinator:</b> Ravazzolo Roberto	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 2 p.m., Wing 16 (Padiglione 16), G. Gaslini Institute (Istituto G. Gaslini), Secretarial Office of the Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI), Largo G. Gaslini 5 – 16147 Genova
<b>Exam syllabus</b>	Contents of the interview: - previous research experience, including research carried out for the degree dissertation; - ideas for projects; - knowledge of basic methodologies for clinical and laboratory research; - ITC knowledge; - knowledge of English.
<b>Research themes</b>	- new knowledge concerning the human genome, including investigations with new technologies; - identification of disease genes, of their mutations, of their consequences in the disease mechanism at a molecular and cellular level and correlations with the clinical phenotype; - singling out of specific aspects of the pathogenic mechanisms that can become the targets of therapeutic approaches; - gene structure and control of gene expression.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Roberto Ravazzolo Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili (DINOGMI) Telephone: (+39) 010 5636 400, (+39) 010 5636 370 E-mail: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a>

**Course in: PAEDIATRIC SCIENCES****Curriculum: MUSCULAR, NEURODEGENERATIVE AND METABOLIC DISEASES IN CHILDREN AND ADOLESCENTS (CODE 5189)**

<b>Coordinator:</b> Ravazzolo Roberto	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 2 p.m., Wing 16 (Padiglione 16), G. Gaslini Institute (Istituto G. Gaslini), Secretarial Office of the Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI), Largo G. Gaslini 5 – 16147 Genova
<b>Exam syllabus</b>	Contents of the interview: - previous research experience, including research carried out for the degree dissertation; - ideas for projects; - knowledge of basic methodologies for clinical and laboratory research; - ITC knowledge; - knowledge of English.
<b>Research themes</b>	Study of new methods to prevent, diagnose and treat neuropediatric pathologies in children and adolescents, with special attention to neuromuscular diseases, neurodegenerative, neuro-metabolic and in general gene-metabolic pathologies, to epilepsy of genetic origin in childhood which may involve neurosurgery, to the defects of the neural tube and of cortical migration and to neurofibromatosis. Molecular and environmental factors of the development of the nervous system are studied, as well as the etiological and pathogenetic aspects of congenital hypotonia, primitive myopathies, spinal muscular atrophies, mitochondrial encephalopathies, leukoencephalopathies, epileptic encephalopathies and metabolic encephalopathies.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Roberto Ravazzolo Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili (DINOGMI) Telephone: (+39) 010 5636 400, (+39) 010 5636 370 E-mail: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a>

## Course in: PAEDIATRIC SCIENCES

### **Curriculum: FETAL-PERINATAL AND PAEDIATRIC PATHOLOGY (CODE 5190)**

<b>Coordinator:</b> Ravazzolo Roberto	
Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI)	
<b>Places:</b> 2 - <b>Grants:</b> 1 (*).	
(*) 1 grant funded by Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI), the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 200,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND INTERVIEW
<b>Interview</b>	08/11/2013 - 2 p.m., Wing 16 (Padiglione 16), G. Gaslini Institute (Istituto G. Gaslini), Secretarial Office of the Department of Neurosciences, rehabilitation, ophthalmology, genetics and mother and child sciences (Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili - DINOGMI), Largo G. Gaslini 5 – 16147 Genova
<b>Exam syllabus</b>	Contents of the interview: - previous research experience, including research carried out for the degree dissertation; - ideas for projects; - knowledge of basic methodologies for clinical and laboratory research; - ITC knowledge; - knowledge of English.
<b>Research themes</b>	Isolated malformation pathology or inserted in syndrome tables; pathology of foetal development and maturation of the foetus and of the consequent adaptive capacities at the moment of birth; placental pathology linked to preterm deliveries and to serious premature births; foetal, neonatal and paediatric cardiovascular pathology; neonatal neurological damage; dysplastic and teratomatous pathology; neoplastic pathology.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Prof. Roberto Ravazzolo Dipartimento di Neuroscienze, riabilitazione, oftalmologia, genetica e scienze materno-infantili (DINOGMI) Telephone: (+39) 010 5636 400, (+39) 010 5636 370 E-mail: <a href="mailto:rravazzo@unige.it">rravazzo@unige.it</a>

## Course in: SOCIAL SCIENCES

### Curriculum: PSYCHOLOGY, ANTHROPOLOGY AND COGNITIVE SCIENCES (CODE 5191)

<b>Coordinator:</b> Palumbo Mauro	
Department of Education Sciences (Dipartimento di Scienze della Formazione - DISFOR)	
<b>Places:</b> 4 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	07/11/2013 - 9 a.m., at the Department of Education Sciences (Dipartimento di Scienze della Formazione - DISFOR), Corso A. Podestà, 2 - 16128 Genova
<b>Interview</b>	08/11/2013 - 2 p.m., at the Department of Education Sciences (Dipartimento di Scienze della Formazione - DISFOR), Corso A. Podestà, 2 - 16128 Genova
<b>Exam syllabus</b>	The written test will be a paper on the theoretical, epistemological and methodological aspects of the relevant subject areas (psychology, anthropology, cognitive sciences). The interview will be a discussion of the candidate's research project and of the qualifications/publications presented, as well as of the written test, with reference also general methodological aspects of research and data analysis techniques in the subject fields referred to. During the interview the candidate's knowledge of English will also be tested.
<b>Further information on how to present qualifications</b>	The following will be evaluated: 1. Quality of the research project presented 2. Research experience and scientific publications 3. Specialist/II level degree or four-year degree dissertation, which may be attached in pdf format 4. Academic curriculum and degree mark  Foreign candidates must clearly state the number of years which correspond to each study cycle carried out and attach the syllabuses of the courses they attended which are relevant to the doctoral course.
<b>Research themes</b>	1. Attention models. Executive control processes in adults and in typical and atypical development. Attention deficits. 2. Memory work models. Capacity, processing, strategy limitations. 3. Neo-Piagetian models of cognitive development. 4. Normal and abnormal development of language. 5. Learning to read and write. Mathematical and scientific education. Predictors of learning disabilities. 6. Simulation models of psychic processes. 7. Development and validation of psychological tests for the evaluation of personalities and individual differences. 8. Mentalization: typical and atypical development, transgenerational transmission, psychopathology and treatment. 9. Psychodynamic models of clinical psychological assessment. The process and outcomes of psychotherapies. Emotional regulation and dysregulation during childhood/adolescence and adulthood. 10. Families and disabilities. 11. Eating behaviour. 12. Basic research in anthropology (biologic anthropology, ageing). Human evolution (phylogenesis of language). 13. Health Anthropology (medical anthropology, ethnomedicine, pleasure/pain). Anthropopoiesis (humanization devices, nature/culture bond). 14. Cognitive ergonomics, human factors. 15. Ageing, measurement of cognitive functions and rehabilitation. Development of cognitive systems to support the elderly and disabled people. 16. Cognitive analysis of the business culture, distance learning, transfer of knowledge, task analysis of work activities. Organizational safety and wellbeing.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: presso la Segreteria Amministrativa del DISFOR, Sig.ra Maria Luisa Cesarano, e-mail: <a href="mailto:cesarano@unige.it">cesarano@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Mrs Maria Luisa Cesarano, DISFOR, tel. 010. 209 53609 e-mail: <a href="mailto:cesarano@unige.it">cesarano@unige.it</a> Prof. Alberto Greco, DISFOR, via Balbi 4, tel. 010 209 9852 e-mail: <a href="mailto:greco@unige.it">greco@unige.it</a>

## Course in: SOCIAL SCIENCES

### Curriculum: SOCIAL, POLITICAL AND INTERCULTURAL SCIENCES (CODE 5192)

<b>Coordinator:</b> Palumbo Mauro	
Department of Education Sciences (Dipartimento di Scienze della Formazione - DISFOR)	
<b>Places:</b> 14 - <b>Grants:</b> 7 (*).	
(*) 7 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 250,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	06/11/2013 - 9.30 a.m., at the Department of Education Sciences (Dipartimento di Scienze della Formazione - DISFOR) Corso A. Podestà, 2 - 16128 Genova
<b>Interview</b>	07/11/2013 - 2 p.m., at the Department of Education Sciences (Dipartimento di Scienze della Formazione - DISFOR), Corso A. Podestà, 2 - 16128 Genova
<b>Exam syllabus</b>	A paper on one of the indicated research themes. Interview on the curriculum and on the written test
<b>Further information on how to present qualifications</b>	The contents of the written test cannot coincide with those of the research project presented in the qualifications. Qualifications/publications may be submitted either in Italian or English.
<b>Research themes</b>	Two grants are reserved for the following research themes: Evaluation of educational processes and systems. Evaluation of education and training. Evaluation of training and educational facilities, including high-level academic training, of learning and of policies concerning education and training. In order to carry out the doctoral course on these themes a suitable knowledge of statistics and English is necessary. Two grants are reserved for the following research themes: • reference models of migration theories, acculturation processes and individual and family identity construction in the various stages of the life cycle with special attention to inter-ethnic families, also from a gender point of view. • Ingroup-outgroup relationships: acculturation processes, integration, learning, ways of identity and social acquisition in various educational, training and working contexts. • Movements of populations with investigations on internal migrations as well as towards Europe. Study of the intercultural processes that developed following in and out movements. Analysis of the changes that came about in the countries of origin after great migration movements. Three grants are reserved for the following research themes: - Political ideas, ideologies, political phenomena from a historical and critical perspective - Promotion and safeguarding of human rights locally, nationally and internationally. - Socio-political dynamics and relations among different cultures in territories of the European Union, the Middle East, Latin America and Sub-Saharan Africa.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: Prof. Mauro Palumbo, DISFOR, Corso Podestà, 2, 16128 Genova oppure via mail a <a href="mailto:palumbo@unige.it">palumbo@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English or French or Spanish
<b>Further information</b>	Mrs Maria Luisa Cesarano, DISFOR, tel. 010. 209 53609 e-mail: <a href="mailto:cesarano@unige.it">cesarano@unige.it</a> For the first research theme: Prof. Mauro Palumbo, DISFOR, tel 010/20953748, e-mail <a href="mailto:palumbo@unige.it">palumbo@unige.it</a> ; For the second research theme: Prof. Raul Crisafio, DISFOR, e-mail <a href="mailto:raul.crisafio@unige.it">raul.crisafio@unige.it</a> ; For the third research theme: Prof. Maria Antonietta Falchi, DISPO, tel. 010/2099065, e-mail <a href="mailto:MariaAntonietta.Falchi@unige.it">MariaAntonietta.Falchi@unige.it</a>

## Course in: STUDY AND ENHANCEMENT OF THE HISTORICAL, ARTISTIC-ARCHITECTURAL AND ENVIRONMENTAL HERITAGE

**Curriculum: HISTORICAL GEOGRAPHY FOR THE ENHANCEMENT OF THE HISTORICAL AND ENVIRONMENTAL HERITAGE (CODE 5193)**

<b>Coordinator:</b> Assereto Giovanni	
Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST)	
<b>Places:</b> 3 - <b>Grants:</b> 2 (*).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	07/11/2013 - 9 a.m., in the Aula (Room) Magna of the Polo didattico - via delle Fontane, 16124 Genova
<b>Interview</b>	08/11/2013 - 11 a.m., at the Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST) – Modern and Contemporary History Section, via Balbi 6, 3 <sup>rd</sup> floor, 16126 Genova
<b>Exam syllabus</b>	The written test will consist in a paper to be done within four hours. The essay title (which will be drawn just before the exam), will deal with general thematic aimed at highlighting the candidate's knowledge, analytical skills and methodological tools. The interview will be a discussion of: 1) the written test; 2) the candidate's research project; 3) the capacity to understand an English passage taken from a history or historical geography text, chosen by the Commission.
<b>Further information on how to present qualifications</b>	Besides the qualifications/publications requested in the public notice exam, candidates are requested to submit by means of the online procedure together with their applications: a) the four year degree thesis, or specialist, or II level degree thesis (in pdf format); b) any publications (in pdf format) c) a brief description of the research project proposed by the candidate (maximum 8000 characters plus the bibliography).
<b>Research themes</b>	The Historical Geographic specialization for the enhancement of the historical and environmental heritage of the doctoral course in History intends to develop methodologies and analytical skills aimed at investigating areas and sites of historical and environmental interest, that is topographically defined spaces where it is still possible to document cultural landscapes of the past and activation practices of resources or where these practices can be reconstructed through the material traces on the land and by means of other historical sources. The competences deal with both on the field work and the deciphering of textual sources (from archives, literary and iconographic). All these research techniques are aimed at the identification of cultural landscapes and the enhancement of the rural and historical-environmental heritage, with special attention to the European reference framework. Therefore the research themes will have to be coherent with this approach. The research activities, multidisciplinary in character, are carried out in the Laboratory of Archaeology and Environmental History (L.A.S.A.) and in the Permanent Seminary of Local History (SEMPER). The L.A.S.A. is divided into two divisions: the geographic and historical division at the Department of Classical Studies, Philosophy and History (DAFIST); the botanical division, at the Department of Earth, Environmental and Life Sciences (DISTAV). The laboratory has been functioning since the academic year 1995-1996, with didactic and research functions, which develop thanks to the organization of international seminars and yearly field campaigns besides the normal activities of an archeo-botanical laboratory. The field activities are carried out above all in the rural areas of North-Western Italy, with the collaboration of Italian and European research centres, interested in the themes of environmental and rural archeology, historical ecology and rural heritage.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: prof. Giovanni ASSERETO - DAFIST - via Balbi, 6 - 16126 GENOVA e-mail: <a href="mailto:gioasser@unige.it">gioasser@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English
<b>Further information</b>	Osvaldo Raggio: <a href="mailto:osvaldo.raggio@lettere.unige.it">osvaldo.raggio@lettere.unige.it</a>

**Course in: STUDY AND ENHANCEMENT OF THE HISTORICAL, ARTISTIC-ARCHITECTURAL AND ENVIRONMENTAL HERITAGE**

**Curriculum: HISTORY (CODE 5194)**

<b>Coordinator:</b> Assereto Giovanni	
Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia -DAFIST)	
<b>Places:</b> 3 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	07/11/2013 - 9 a.m., in the Aula (Room) Magna of the Polo didattico - via delle Fontane, 16124 Genova
<b>Interview</b>	08/11/2013 - 11 a.m., at the Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST) – Modern and Contemporary History Section, via Balbi 6, 3 <sup>rd</sup> floor, 16126 Genova
<b>Exam syllabus</b>	The written test will consist in a paper to be done within four hours. The essay title (which will be drawn there and then, one for candidates doing Modern History, one for candidates doing Contemporary History) will deal with general thematic aimed at highlighting the candidate's knowledge, analytical skills and methodological tools. The interview will be a discussion of: 1) the written test; 2) the candidate's research project; 3) the capacity to understand a passage from a history text, chosen by the commission, in the foreign language chosen by the candidate.
<b>Further information on how to present qualifications</b>	Besides the qualifications/publications requested in the public notice exam, candidates are requested to submit by means of the online procedure together with their applications: a) the four year degree thesis, or specialist, or II level degree thesis (in pdf format); b) any publications (in pdf format) c) a brief description of the research project proposed by the candidate (maximum 8000 characters plus the bibliography).
<b>Research themes</b>	The History specialization includes: a) a contemporary line of research, with special attention to aspects of social history linked to the advent of mass society, to the phenomena of mobility and transnationality (migrations, especially to the North and South America), to Euro-Atlantic relations, to gender history, to ethno history; b) a modern line of research which concerns the history of Modern Europe in its different parts (political-institutional history, the history of territory, maritime history, military, cultural and religious history, with special attention to Italy and to the documentation heritage they refer to).
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: prof. Giovanni ASSERETO - DAFIST - via Balbi, 6 - 16126 GENOVA e-mail: <a href="mailto:gioasser@unige.it">gioasser@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English, French, Spanish.
<b>Further information</b>	Prof. Giovanni Assereto, tel. 0102099829, <a href="mailto:gioasser@unige.it">gioasser@unige.it</a>



**Course in: STUDY AND ENHANCEMENT OF THE HISTORICAL, ARTISTIC-ARCHITECTURAL AND ENVIRONMENTAL HERITAGE**

**Curriculum: HISTORY AND PRESERVATION OF THE ARTISTIC AND ARCHITECTURAL HERITAGE (CODE 5195)**

<b>Coordinator:</b> Assereto Giovanni	
Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia -DAFIST)	
<b>Places:</b> 3 - <b>Grants:</b> 2 (*).	
<b>Places in excess available to persons with a foreign degree :</b> 1 (without grant).	
(*) 2 grants from the University, the annual gross amount of the grant, including social security expenses to be paid by the recipient, is €13.638,47	
<b>Second instalment</b>	(only for graduate students who do not benefit from a grant) 500,00€
<b>Comparative assessment procedure</b>	QUALIFICATIONS/PUBLICATIONS AND EXAM
<b>Written test</b>	07/11/2013 - 9 a.m., in the Aula (Room) Magna of the Polo didattico - via delle Fontane, 16124 Genova
<b>Interview</b>	08/11/2013 - 11 a.m., at the Department of Classical Studies, Philosophy and History (Dipartimento di Antichità, Filosofia e Storia - DAFIST) – Modern and Contemporary History Section, via Balbi 6, 3 <sup>rd</sup> floor, 16126 Genova
<b>Exam syllabus</b>	The written test will consist in a paper to be done within four hours, on the basis of an outline drawn by the candidates from a group of three proposals prepared by the Examining Commission on general issues, relevant to the study and analysis of the artistic and architectural heritage and its preservation, aimed at highlighting the candidate's knowledge, analytical skills and methodological tools. The interview will be a discussion of: 1) the written test; 2) the candidate's research project; 3) the capacity to understand a passage from a text on historical and artistic themes or relevant to the cultural heritage, chosen by the commission, in the foreign language chosen by the candidate.
<b>Further information on how to present qualifications</b>	Besides the qualifications/publications requested in the public notice exam, candidates are requested to submit by means of the online procedure together with their applications: a) the four year degree thesis, or specialist, or II level degree thesis (in pdf format); b) any publications (in pdf format) c) a brief description of the research project proposed by the candidate (maximum 8000 characters plus the bibliography).
<b>Research themes</b>	The overall scope of the research proposals is directed to the study of the artistic and historical heritage and to the analysis of the issues concerning its preservation, besides the knowledge of the cultural and technical processes that characterise it, being aware of the need to present as substantial facts both the historical-territorial relations of the phenomena and their structural specificity. In this context the following lines, which constitute the curricular basis of the doctoral course, have emerged: a. analysis of the artistic and architectural item and its relations with the territory; b. analysis of the spreading processes of cultural and linguistic models, with special attention to the areas influenced by and interrelating with European culture; c. interaction among social, political, economic phenomena and communication through artistic forms; d. the client-artist-public relationship; e. iconographic and iconological studies; f. details of the religious structure in the use and production of images and in the creation of architectural models; g. Ligurian regional identity and its specificity in the European context; h. the relationship among production centres, institutions and the territory; models and replicas, centre and outskirts; i. analysis of technical processes in defining problems relating to historical-artistic and architectural artefacts; j. methodologies for the knowledge and preservation of the cultural heritage in its physical, architectural and territorial dimension.
<b>Information on references</b>	Candidates must choose not less than one and not more than three referees to support their candidature. These referees must be university professors or experts in the subject and it will be their concern to send reference letters, within the deadline of the public notice, to the Coordinator of the Doctoral Course at the following address: prof. Giovanni ASSERETO - DAFIST - via Balbi, 6 - 16126 GENOVA e-mail: <a href="mailto:gioasser@unige.it">gioasser@unige.it</a> The name, status and service place of the referees chosen by the candidates must be stated in their applications.
<b>Foreign languages</b>	English or French
<b>Further information</b>	Lauro Magnani, <a href="mailto:magnani@unige.it">magnani@unige.it</a> Laura Stagno, <a href="mailto:laura.stagno@unige.it">laura.stagno@unige.it</a>