

**DOCTORAL COURSE IN
CIVIL AND ENVIRONMENTAL ENGINEERING**

GENERAL DESCRIPTION

SUBJECT AREAS COVERED BY THE COURSE:

- main area: ICAR/05
- other areas: ICAR/22; GEO/11; ICAR/01; ICAR/10; ICAR/04; ICAR/08; ICAR/02; ICAR/07; ICAR/09; ICAR/17; ICAR/05; ICAR/06; GEO/10

RESEARCH FIELDS:

1. Structures, roads and transportation eng.
2. Environmental and georesources eng.

ORGANIZING DEPARTMENT: Dip. di Ingegneria civile e ambientale

PARTICIPATING DEPARTMENTS (UNIVERSITY OF PADOVA):

- Dip. di Costruzioni e Trasporti

OTHER PARTICIPATING UNIVERSITIES (Italian):

- Università degli Studi di Padova

OTHER PARTICIPATING INSTITUTIONS (Italian)

- INOGS – Istituto Nazionale di Oceanografia e di Geofisica Sperimentale

DURATION: 3

MAXIMUM NUMBER OF MONTHS TO BE SPENT ABROAD: 6

OFFICIAL LANGUAGE OF THE SCHOOL: Italian

ADMISSION INFORMATION AND REQUIREMENTS

NUMBER OF PLACES AVAILABLE: 1

SCHOLARSHIPS: 1

FUNDING BODY/IES:

- Università degli Studi di Trieste + MIUR (earmarked for the Project : Risparmio energetico e microgenerazione distribuita- Climatizzazione di edifici mediante sonde geotermiche e pompe di calore: caratterizzazione della sorgente geotermica e dei fabbisogni energetici)..... 1

N.B: This scholarship does not provide extra funding for eventual periods of study abroad within the duration of the doctorate, unless the organizing Department decides to make these funds available.

Candidates who accept an earmarked scholarship are committed to the pre-assigned topic

ACADEMIC QUALIFICATION REQUIRED: see Announcement (art. 1.1 -Requirements)

The Course requires the following degrees (or equivalent degrees awarded by non-Italian institutions):

- Lauree specialistiche/magistrali:
 - 28/S INGEGNERIA CIVILE
 - 34/S INGEGNERIA GESTIONALE
 - 36/S INGEGNERIA MECCANICA
 - 31/S INGEGNERIA ELETTRICA
 - 20/S FISICA
 - 35/S INGEGNERIA INFORMATICA
 - 38/S INGEGNERIA PER L'AMBIENTE E IL TERRITORIO
 - 45/S MATEMATICA
 - 50/S MODELLISTICA MATEMATICO-FISICA PER L'INGEGNERIA
 - 82/S SCIENZE E TECNOLOGIE PER L'AMBIENTE E IL TERRITORIO
 - 85/S SCIENZE GEOFISICHE
 - 86/S SCIENZE GEOLOGICHE
- Lauree vecchio ordinamento
 - INGEGNERIA CIVILE
 - INGEGNERIA CIVILE PER LA DIFESA DEL SUOLO E PIANIFICAZIONE TERRITORIALE
 - INGEGNERIA DELLE TECNOLOGIE INDUSTRIALI
 - INGEGNERIA EDILE
 - INGEGNERIA EDILE-ARCHITETTURA
 - INGEGNERIA ELETTRONICA
 - INGEGNERIA ELETTROTECNICA
 - INGEGNERIA GESTIONALE
 - INGEGNERIA INDUSTRIALE
 - INGEGNERIA INFORMATICA
 - INGEGNERIA MECCANICA

- INGEGNERIA NAVALE
- INGEGNERIA NAVALE E MECCANICA
- INGEGNERIA PER L'AMBIENTE E IL TERRITORIO
- INGEGNERIA DEI MATERIALI
- INGEGNERIA ELETTRICA
- INGEGNERIA MINERARIA
- INGEGNERIA NUCLEARE
- SCIENZE GEOLOGICHE
- MATEMATICA
- FISICA

DEADLINE FOR COMPLETION OF DEGREE BEFORE APPLICATION:..... 26.02.2011

ADMISSION REQUIREMENTS: qualifications + interview.
 FINAL SCORE: the final score is based on the sum total of marks obtained in the interview plus the points given for qualifications and publications:..... 100
 FINAL SCORE (MINIMUM REQUIRED):..... 70/100
 SCORE ATTRIBUTED TO THE QUALIFICATIONS: 40/40
 QUALIFICATIONS REQUIRED (RELATIVE WEIGHT):
Art. 11 Rules for Doctorates: all candidates are required to present the following documents, regardless of whether or not a score is assigned to them (see below):
 a. a detailed curriculum vitae et studiorum, 20/40
 b. a copy of the Master's degree thesis, 10/40
 For students with a degree awarded by a non-Italian university, an abstract of the thesis in English or Italian is sufficient.
as well as
 1. other academic titles: 7/40
 2. other titles: 3/40
 - Qualifications Assessment Form (unless this form is presented, qualifications and publications CANNOT be assessed by the Examining Board)
 MINIMUM SCORE REQUIRED FOR THE QUALIFICATIONS:..... no
 ORAL EXAMINATION MARK OUT OF:..... 60
 MINIMUM SCORE REQUIRED FOR INTERVIEW:..... 42/60
 DEADLINE FOR RECEIVING CERTIFICATES/ PUBLICATIONS: 28.02.2011
 ADDRESSES TO WHICH CERTIFICATES SHOULD BE SENT: Segreteria del Dipartimento di Ingegneria civile e ambientale – dell'Università degli Studi di Trieste - P.le Europa,1-34127-TRIESTE

EXAMINATION SCHEDULE:

POSSIBLE ALTERNATIVE LANGUAGE TO THE ITALIAN FOR THE WRITTEN EXAMINATION: English

- INTERVIEW: 01.03.2011 at 3 p.m. at D.I.C.A – Biblioteca Sezione Strade Trasporti e Topografia -TRIESTE

ALTERNATIVE LANGUAGE TO ITALIAN FOR THE INTERVIEW: English, French, German

CONTACT INFORMATION

CHAIR: Prof. Claudio Amadio - Dipartimento di Ingegneria Civile e Ambientale - Università degli Studi di Trieste - tel. 040558.2833 fax: 040558.3580 e-mail amadio@univ.trieste.it

WEB SITE: <http://www.dica.units.it/dottorati/dottorato.htm>

OVERVIEW: The research themes are those characterising the civil engineering research fields at the University of Trieste and, in particular:
 a. structural and functional design;
 b. design and management of infrastructure and transport systems;
 c. environmental engineering and earth resources;
 d. geomatics.
 In particular, in structural engineering researches is developed on calculation of steel, reinforced concrete and wood structure both in static and dynamic conditions.
 Particular attention is paid to the study of seismic vulnerability and mitigation of existing structures, in addition to the advanced seismic design of new structures.
 In the design and management of infrastructure and transportation systems are addressed first the issues of geometric and physical characteristics, with particular reference to the effects on road safety. Furthermore are deepened methods for planning the transportation systems, with particular reference to road and rail, and for their technical and economic evaluation.
 Within the environment and earth resources engineering, researches are detailed on methods and techniques for subsoil characterization, new raw materials and energy sources research and exploitation and their sustainable management in different geological and environmental contexts.
 Particular attention is devoted to surface and ground water resources management, vulnerability and rehabilitation of polluted water bodies from urban and industrial activities. Finally, specific aspects are examined, such as natural risk prevention and protection (hydrological, geological, seismological and volcanic) and security for large civil settlements.

In the geomatics field the research activities are relative to GNSS surveying technologies applications to environmental monitoring, terrestrial and aerial real time navigation and integrated GIS (Geographic Information Systems).

These research topics are addressed in an integrated approach, with particular emphasis on user safety, operational efficiency and economic and environmental sustainability.