

**DOCTORAL COURSE IN  
SCIENCE, TECHNOLOGY AND ECONOMICS IN COFFEE INDUSTRY**

**GENERAL DESCRIPTION**

SUBJECT AREAS COVERED BY THE COURSE:

- main area: BIO/18
- other areas: ING-IND/25- BIO/04- SECS-P/02- BIO/01- ING-IND/27- ING-IND/24- SECS-P/08- CHIM/10- BIO/02

FIELDS OF RESEARCH:

1. Evaluation of the coffee cap quality: coffee terroir
2. High pressure extraction processes
3. Coffee market evaluation
4. Productivity, protection and physiology of the coffee plant
5. Chemical, physical and sensorial changes of coffee following industrial transformation
6. Genomic and Coffee Quality

ORGANIZING DEPARTMENT: Dipartimento di Scienze della Vita

PARTICIPATING DEPARTMENTS (UNIVERSITY OF TRIESTE):

- Dipartimento di Scienze Economiche, Aziendali, Matematiche e Statistiche
- Dipartimento dei Materiali e delle Risorse Naturali

PARTICIPATING DEPARTMENTS (UNIVERSITY OF UDINE):

- Dipartimento degli Alimenti

OTHER PARTICIPATING UNIVERSITIES (Italian):

- Università degli Studi di Udine

DURATION: 3 years

MAXIMUM NUMBER OF MONTHS TO BE SPENT ABROAD: 3

OFFICIAL LANGUAGE OF THE SCHOOL: Italian

**ADMISSION INFORMATION**

NUMBER OF PLACES AVAILABLE: ..... 1

- SCHOLARSHIPS: ..... 1

FUNDING BODY/IES:

- Università degli Studi di Trieste..... 1

ACADEMIC QUALIFICATIONS REQUIRED: See Announcement (Art. 1.1 - Requirements)

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

- Lauree specialistiche/magistrali:
  - 6/S in BIOLOGIA
  - 14/S in FARMACIA E FARMACIA INDUSTRIALE
  - 62/S in SCIENZE CHIMICHE
  - 77/S in SCIENZE E TECNOLOGIE AGRARIE
  - 78/S in SCIENZE E TECNOLOGIE AGROALIMENTARI
  - LM-6 BIOLOGIA
  - LM-7 BIOTECNOLOGIE AGRARIE
  - LM-22 INGEGNERIA CHIMICA
  - LM-54 SCIENZE CHIMICHE
  - LM-70 SCIENZE E TECNOLOGIE ALIMENTARI
  - LM-71 SCIENZE E TECNOLOGIE DELLA CHIMICA INDUSTRIALE
  - LM-77 SCIENZE ECONOMICO-AZIENDALI
- Lauree vecchio ordinamento
  - BIOTECNOLOGIE AGRARIE-VEGETALI
  - BIOTECNOLOGIE AGRO-INDUSTRIALI
  - CHIMICA
  - CHIMICA E TECNOLOGIE FARMACEUTICHE
  - COMMERCIO INTERNAZIONALE E MERCATI VALUTARI
  - ECONOMIA
  - ECONOMIA E COMMERCIO
  - INGEGNERIA INDUSTRIALE
  - SCIENZE AGRARIE
  - SCIENZE BIOLOGICHE
  - SCIENZE E TECNOLOGIE ALIMENTARI

DEADLINE FOR COMPLETION OF DEGREE: ..... 31.12.2010

ASSESSMENT CRITERIA: 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  
MINIMUM FINAL SCORE REQUIRED: ..... 55/100  
MAXIMUM NUMBER OF POINTS AWARDED FOR QUALIFICATIONS+  
PUBLICATIONS:..... 50

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, 15/50
- b. a copy of the Master's degree thesis, 15/50

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. concise report on previous research activities (if any) 10/50
2. other qualifications 10/50

- Qualifications Assessment Form (unless this form is presented, qualifications and publications CANNOT be assessed by the Examining Board)

MINIMUM SCORE REQUIRED FOR QUALIFICATIONS/PUBLICATIONS:..... 25/50

ORAL EXAMINATION MARK OUT OF: ..... 50

MINIMUM SCORE REQUIRED FOR INTERVIEW: ..... 30/50

ABSOLUTE DEADLINE FOR RECEIVING CERTIFICATES: 25.02.2011

ADDRESSES TO WHICH CERTIFICATES SHOULD BE SENT: Laboratorio di Genetica, Dipartimento di Scienze della Vita, Università degli Studi di Trieste, P.le Valmaura 9, 34100 Trieste

#### EXAMINATION SCHEDULE:

- INTERVIEW: 04.03.2011 at 10 a.m. at Laboratorio di Genetica del Dipartimento di Scienze della Vita dell'Università degli Studi di Trieste, P.le Valmaura 9, ground floor – TRIESTE

ALTERNATIVE LANGUAGE TO ITALIAN FOR THE INTERVIEW: English

#### CONTACT INFORMATION

CHAIR: Prof. Alberto PALLAVICINI– Dipartimento di Scienze della Vita- Università degli Studi di Trieste - tel. 040/812237 fax 040558.2011e-mail [pallavic@units.it](mailto:pallavic@units.it)

VICE: Prof. Giorgio GRAZIOSI –Dipartimento di Scienze della Vita - Università degli Studi di Trieste - tel. 040811876 –fax 040810860 e-mail [graziosi@units.it](mailto:graziosi@units.it)

WEB SITE: work in progress

OVERVIEW: Coffee is the third commodity, after noble metals and oil, for commercial exchange in the world. The reason for such an intense commercial exchange is the fact that coffee is mainly consumed in temperate countries but it can be cultivated only in tropical or sub tropical countries. Consequently there is an objective difficulty in understanding and controlling the productive chain and a very large commercial network. Moreover the coffee trade requires a large spectrum of knowledge that covers agronomy, botany, chemistry, food science, economics and industrial engineering.

The aim of the doctorate is the high qualification of the students and their specific preparation for in the field of research as well as in field of industrial application and commercialization. The aim fields of research will be Biology and Agronomy (anything concerning the plant), Engineering (from the green bean up to the preparation of the brew) and Economy (the coffee market and industrial activities).

A non secondary target is the basic cultural preparation of the students on subjects not included in their university degree.

#### SUMMARY OF THE ACTIVITIES YEAR HOURS

1. Introductory course on coffee I 20
2. Seminars I 20
3. Research activity I 20 / week
4. Seminars II 20
5. Research activity II 25 / week
6. Laboratory: cup quality evaluation II 4
7. Laboratory: green coffee quality evaluation II 4
8. Visita a 2 realtà industriali del caffè II 8
9. Seminars III 20
10. Research activity III 20 / week
11. Laboratory: 2° cup quality evaluation III 4
12. Visit to 2 coffee industries III 8