

**Inter-University Cooperation Agreement**  
for issuing the Double Degree of  
International Master of Science in Applied and Exploration Geophysics  
between

**the University of Pisa, Italy**

and

**Montanuniversitaet Leoben, Austria**

The University of Pisa, with headquarters in Pisa, Lungarno Pacinotti 43, represented by the Rector Prof. Paolo Maria Mancarella

and

The Montanuniversitaet Leoben, with headquarters in Franz-Josef-Str. 18, 8700 Leoben represented by the Rector Prof. Wilfried Eichlseder

**Considered**

- That it is in the interest of the Universities to build a lasting relationship of cooperation and to create and develop a system of academic exchange;
- That according to Ministerial Decree 270/04, art. 3, and on the basis of specific agreements, Italian Universities can issue a Degree in conjunction with other Italian or foreign Universities;
- That Art. 3 of the University's Academic Regulations provides the possibility of issuing a Degree in collaboration with other Universities, including foreign ones;
- The Regulations of the partner Universities (Pisa and Montanuniversitaet)
- That the Universities, each with its own available means and respecting the current laws and regulations of their Country, commit to collaborate and welcome students, professors and administrative staff who participate in the programme established in this agreement.

**Art. 1**

**Objective of the agreement and degree programme description**

The University of Pisa (Italy) and the Montanuniversitaet Leoben (Austria), hereinafter referred to as "partner Universities", agree to collaborate to start a 2-year Master's Double Degree Programme starting in the academic year 2018, named *International Master of Science in Applied and Exploration Geophysics*, leading to the issuance of a Double Degree.

The goal is for the student to develop a high level of knowledge on the methodologies of exploration and applied geophysics with emphasis on the processing, inversion, modelling and geological interpretation of geophysical data.

Both parties will collaborate with one another, as well as independently, to create this joint programme so that it may be easily identifiable within the educational opportunities of each

University and the legislation of the corresponding Country. The programme is to be offered to a limited number of selected students of the University of Pisa and of the Montanuniversitaet. That number will be decided each academic year taking into account the number of enrolments at the "Laurea Magistrale in Geofisica di Esplorazione ed Applicata" (at the University of Pisa) and at the "Masterstudium Angewandte Geowissenschaften" (at the Montanuniversitaet Leoben).

## **Art. 2**

### **Course Management**

The partner Universities will be responsible for the overall coordination and management of the programme. They will consult each other whenever they deem it appropriate in order to monitor and guarantee the quality assurance of the programme and to resolve any difficulties connected with the correct development of the programme. The partner Universities will carry out together the selection, set up joint promotion activities and quality assurance mechanisms. For this purpose, a Steering Board and Local Selection Committees will be nominated.

The Steering Board of the Double Degree Programme is composed by at least 4 people: the two course directors of the "Laurea Magistrale in Geofisica di Esplorazione ed Applicata" (University of Pisa) and of the "Masterstudium Angewandte Geowissenschaften" (Montanuniversitaet Leoben), and at least one professor from each partner University. The Steering Board will decide the maximum number of students to be enrolled in the Double Degree Programme, each academic year. The Steering Board will also examine and approve the study plan of each student to verify its correspondence to the scientific and formal requirements of the course of study.

The Steering Board nominates two Local Selection Committees, one at the University of Pisa and one at the Montanuniversitaet, in order to select the students that can be accepted in the Double Degree Programme. The committee of the University of Pisa must include the director of the "Laurea Magistrale in Geofisica di Esplorazione ed Applicata", and the committee of the Montanuniversitaet must include a member of the Curricular Commission of the "Masterstudium Angewandte Geowissenschaften". Both committees must also include at least one local teacher responsible of a course belonging to the Double Degree Programme.

## **Art. 3**

### **Financial Plan**

The activities of the Double Degree Programmes will be exclusively financed with the students' university fees. It is possible, however, that each partner University may obtain further funding from external public or private entities on the basis of specific agreements. The implementation of the Double Degree Programme does not hold the partner Universities liable for any financial burden nor any other obligations, except for those stated in this Act.

## **Art. 4**

### **Professors**

The partner Universities work towards the realization of the joint Programme by contributing professors and researchers for this purpose. The minimum number of

academic staff must be such that the Double Degree Programme can take place in accordance with the regulations of the partner Universities.

The teaching and research staff will be able to use the facilities of the partner Universities to do courses and trainings, carry out mentoring activities, participate in seminars, in examination boards, in research and in meetings to plan, evaluate or develop student exchange programs.

#### **Art. 5 Courses**

The partner Universities make available for the students a list of courses and seminars that will be held in English at their respective classrooms and laboratory facilities. The available courses are listed in the Annex 1 of this act. The list of available courses can be updated each academic year.

#### **Art. 6 The programme**

The Double Degree Programme will be delivered over a two-years-period. The double degree diploma will be awarded to selected students who successfully completed the whole curriculum including the study period in the host university. The Steering Board must approve the study plan of each student, consisting in the list of courses that the student proposes to attend.

#### **Art. 7 Award of the double degree diploma**

The award of the Double Degree diploma is decided in accordance with the judgment of both partner Universities. Two separate diploma will be issued by the University of Pisa and by the Montanuniversitaet. For the Master Thesis final discussion, it will be the responsibility of the student to provide the Thesis document to the two partner Universities, meeting their standard form requirements.

#### **Art. 8 Requisites for the admission**

The students must satisfy the requisites for the admission in their respective programmes in Pisa and in Leoben. Students with an Italian Bachelor in Earth Sciences, Physics, Engineering, and an Austrian Bachelor in Geoengineering generally meet the minimum pre-requisites for the admission. Knowledge of English language equivalent to a B2 certificate is mandatory.

#### **Art. 9 Selection**

The selection of students will be carried out by the Local Selection Committees. The Selection Committees can use any criteria based on academic merit and/or on specific tests to select students without regard to race, colour, gender, sexual orientation, civil status, age, religion, political conviction, language, ethnic or national origin, social condition, a disability or the use of any means to palliate a disability. An interview with the applicant students will be held at the respective home university. On that occasion, the

applicant student will present his/her preliminary study plan with the courses, seminars and other activities he/she wishes to attend.

The Local Selection Committees decides on the acceptance or the rejection of each application. The admitted students will have to enrol to both of the partner Universities.

#### **Art. 10**

##### **Students' mobility**

Students who have enrolled in the Double Degree Programme must:

- § Acquire at least 24 ECTS, corresponding to the 20% of the academic curriculum of 120 ECTS in courses and activities taught at the host University (in the 24 ECTS cannot be included credits pertaining to the thesis work).
- Carry out their thesis work at one of the partner Universities, under the supervision of advisors (tutor and co-tutor), one from each partner university.

#### **Art. 11**

##### **Tuition fees**

The host University will waive all tuition and other required fees for incoming students enrolled in the Double Degree Programme. Students will pay tuition fees at their home Universities according to the local regulations.

#### **Art. 12**

##### **Students' rights and obligations**

Students enrolled in the Double Degree Programme:

- are requested to present their study plan to the Steering Committee for its approval.
- are responsible for the payment of the university tuition fees according to the regulations dictated by the administrative headquarters of their home universities;
- have the right to be eligible for any reductions due to their economic situation or merit according to the same conditions which apply to students enrolled in the University where the student pays the fee.

University of Pisa (incoming and outgoing students)

- are insured against accidents they may have during their stay at the partner University;
- are insured against civil liability for damages they may inadvertently cause to third parties;
- can have access to all services offered by the partner Universities (scholarships, refectory, accommodation) during their stay at either University;
- are obliged to respect the current regulations of the partner Universities regarding the use of equipment and attendance of the Universities' facilities.

Montanuniversitaet Leoben (incoming and outgoing students)

- are insured against accidents they may have during their stay at the partner University;

- are not insured against civil liability for damages they may inadvertently cause to third parties;
- can have access to all services offered by the partner Universities (scholarships, refectory, accommodation) during their stay at either University;
- are obliged to respect the current regulations of the partner Universities regarding the use of equipment and attendance of the Universities' facilities.

### **Art. 13** **Controversies**

The resolution of possible controversies, which may take place in the interpretation and implementation of the present agreement, will be dealt with in an amicable way. Should this manner fail, the matter will be referred to an arbitration board composed of a member appointed by each partner University and one chosen by mutual agreement.

### **Art. 14** **Issuance of the degree**

Two separate diploma will be issued by the University of Pisa and by the Montanuniversitaet Leoben with their respective logos and the corresponding qualification. It will be signed by the respective Rectors. It will also have assigned a final grade expressing the academic level attained by the student in the Double Degree, following the regulations of the respective universities.

### **Art. 15** **Duration**

The agreement will be effective starting on the date in which it is signed by all parties and will have the duration of 5 years. The agreement will be reviewed by the partner universities after two years. This act can be revised or modified by mutual agreement.

The Rector of the University of Pisa  
Prof. Paolo Maria Mancarella



UNIVERSITÀ DI PISA



The Rector of the Montanuniversitaet Leoben  
Prof. Wilfried Eichlseder

25.6.2012

28.10.2012

## ANNEX 1

to the Inter-University Cooperation Agreement for issuing a Double Degree between the University of Pisa and Montanuniversitaet Leoben

### **1) List of courses that the partner universities commit to make available for the double degree**

#### **Courses at University of Pisa**

##### **First Semester, 1<sup>st</sup> or 2<sup>nd</sup> year**

- Exploration Seismology (6 ECTS)
- Rock Physics (6 ECTS)
- Inverse problems in Geophysics (6 ECTS)
- Radar Geomorphology (6 ECTS)
- Introduction to Machine Learning in Geophysics (3 ECTS)
- Seminars (1 ECTS)

##### **Second Semester, 1<sup>st</sup> or 2<sup>nd</sup> year**

- Applied Geophysics (6 ECTS)
- Computational Geophysics (6 ECTS)
- Laboratory of seismic acquisition and processing (6 ECTS)
- Introduction to Well Logs (3 ECTS)
- Seismic Imaging (6 ECTS)
- Borehole methods for subsurface investigations (6 ECTS)
- Seminars (1 ECTS)

for a total of 62 ECTS.

For the students enrolled at Montanuniversitaet Leoben, at least 24 ECTS among these courses are required to obtain the double degree



## Courses at Montanuniversität Leoben

### First Semester, 1<sup>st</sup> or 2<sup>nd</sup> year

- Induced Seismicity (2.5 ECTS)
- Advanced Borehole Geophysics (4 ECTS)
- Geophysical Reservoir Characterization (6 ECTS)
- Petroleum Systems and Unconventionals (4 ECTS)
- Petroleum Exploration (2.5 ECTS)
- Inverse Problems (5 ECTS)
- Digital Signal Processing (3 ECTS)
- Advanced Hydrogeology and Deep Geothermal Systems (2 ECTS)
- Geologic Modeling (3 ECTS)
- Integrated Geophysical Field Workshop (5 ECTS)
- Geophysics Seminar (1 ECTS)

### Second Semester, 1<sup>st</sup> or 2<sup>nd</sup> year

- Reflection Seismology (3 ECTS)
- Reflection Seismic Processing Lab (2 ECTS)
- Reservoir Rocks (3 ECTS)
- Sequence Stratigraphy (3.5 ECTS)
- Geophysical and Geochemical Field Project (4 ECTS)
- Advanced Geochemistry B (3 ECTS)
- Basics of Environmental Geophysics (1.5 ECTS)
- Basin Evolution and Sedimentary Environments (4.5 ECTS)
- Ground Water Modeling and Contaminant Transport (2 ECTS)
- Geophysics Seminar (1 ECTS)

for a total of 65.5 ECTS.

For the students enrolled at the University of Pisa, at least 24 ECTS among these courses are required to obtain the double degree

Table 1) Correspondence between exam evaluation

Montanuniversität Leoben	Università Pisa
1	28 – 30
2	24 – 27
3	20 – 23
4	18 – 19
5	< 18

## 2) Master Thesis

The master thesis must be developed and discussed at one of the partner Universities. It must be undertaken under the supervision of advisors (tutor and co-tutor), one from each partner University. The thesis must be written in English. The total amounts of credits related to the thesis activities amounts to 40 ECTS.

Table 2) Correspondence between thesis grade

Montanuniversität Leoben	Universität Pisa
1	7 – 9
2	5 – 6
3	3 – 4
4	0 – 2