



*Università degli Studi di Napoli  
Parthenope*

**COOPERATION AGREEMENT FOR THE MANAGEMENT OF THE INTERNATIONAL  
PHD CURRICULUM IN  
“ENVIRONMENT, RESOURCES AND SUSTAINABLE DEVELOPMENT”**

<http://www.ersd.uniparthenope.it/>

**Considering**

The existing scientific collaboration in the framework of the PhD Programme “Environment, Resources and Sustainable Development” between Parthenope University of Naples and Nicolaus Copernicus University in Torun, Poland,

**Considering**

- a) the willingness to promote the mobility of students throughout Europe, with the aim of increasing their opportunities to acquire international experience and education;
- b) the willingness to contribute to the improvement of the European cultural integration within a scientific context;
- c) the common scientific interest concerning the development of sustainable management systems and environmental and human health protection,

**it is agreed between**

Parthenope University of Naples and Nicolaus Copernicus University in Torun, Poland  
to participate in the management of the International PhD Programme in “Environment, Resources and Sustainable Development” in agreement to the following articles:

**Article 1. Institutions in charge for the management of the  
International PhD Programme**

Parthenope University of Naples, in collaboration with Nicolaus Copernicus University in Torun, Poland, is responsible for a 3-years International PhD Programme entitled “Environment, Resources and Sustainable Development”.

The main Institution in charge for administrative, educational and research matters is Parthenope University of Naples. Nicolaus Copernicus University in Torun, Poland, will cooperate and support the PhD Programme through the exchange of faculties and teaching activities, joint research activities, and joint supervision of PhD students according to their own rules in terms of human and financial resources.



Università degli Studi di Napoli  
*Parthenope*

## **Article 2. Mission of the International PhD Programme**

The International PhD Programme “Environment, Resources and Sustainable Development” is designed to train the future intellectual leaders in the field of environmental science and sustainable development. The program is focused on different scales of investigation, from molecules to ecosystems, always promoting an interdisciplinary and system-based approach to science and problem solving. The PhD Programme is supported by a large network of national and international partners and strives for promoting an international dimension of scientific research.

## **Article 3. Main research areas of the International PhD Programme**

The main research areas of the International PhD Programme are:

### **CHEMISTRY & BIOCHEMISTRY**

- Agricultural chemistry
- Biochemical properties of natural biomolecules
- Production of extremophilic enzymes and biopolymers
- Biorefining of waste vegetable biomass
- Secondary metabolites from microbial and vegetable biomass

### **ENVIRONMENTAL MICROBIOLOGY**

- Soil microbiology
- Water microbiology
- Microbial ecology
- Food microbiology

### **ECOLOGY & ECOSYSTEMS**

- Agroecosystems
- Biodiversity
- Nature Conservation
- Forest ecosystems
- Urban ecosystems
- Systems ecology

### **ECOSYSTEM SERVICES**

- Ecosystem services assessment
- Ecosystem services valuation

### **ENVIRONMENTAL ACCOUNTING**

- Material Flow Accounting
- Energy analysis
- Energy accounting
- Environmental footprints

### **ENVIRONMENTAL ASSESSMENT**

- Multicriteria environmental assessment
- Environmental impact assessment
- Integrated environmental assessment



*Università degli Studi di Napoli  
Parthenope*

- Life Cycle Assessment

#### ENVIRONMENTAL CHEMISTRY

- Environmental physical-chemistry
- Air quality monitoring and modelling

#### ENERGY & ENVIRONMENT

- Bioenergy
- Renewable energy
- Integrated systems and zero emission production patterns

#### APPLIED PHYSICS

- Astrophysics
- Astrobiology
- Comets and the origin of life

#### ENVIRONMENTAL MODELLING

- Environmental and ecological modelling
- Environmental informatics
- Parallel computing

### **Article 4. Responsible persons in charge for the bilateral agreement**

The persons in charge for this bilateral agreement are: prof. Stefano Dumontet (PhD Coordinator) and Dr. Pier Paolo Franzese (PhD Secretary) for Parthenope University of Naples, and dr hab. Jarosław Kobak (PhD Coordinator) and dr hab. Agnieszka Piernik for Nicolaus Copernicus University in Torun, Poland. The two persons in charge for Nicolaus Copernicus University in Torun, Poland will be included in the PhD Professors board.

### **Article 5. PhD course duration**

Each PhD course has duration of 3 years and consists of both coursework and applied research. Each year a new cycle of the PhD Programme is activated.

### **Article 6. Selection and enrolment of PhD students**

Applicants will be selected by means of a competitive examination taking place at Parthenope University of Naples or by means of a Skype interview once per year. The applicants that will pass the selection will be enrolled in the Doctoral Programme at Parthenope University of Naples.

### **Article 7: Examination board (competitive examination)**

The examination board is composed by 3 members belonging to Parthenope University of Naples and, if possible due to financial resources availability of the partner Institutions, integrated by 1 or



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Parthenope

2 members belonging to European and extra-European Universities or Research Centres. The examination board is appointed by the Rector of Parthenope University of Naples.

#### **Article 8. PhD scholarships**

PhD scholarships will be provided by Parthenope University of Naples in a variable number which will be established each academic year. National and international partner Institutions are entitled to provide PhD scholarships according to their own rules and financial availability.

#### **Article 9. PhD language**

The official language of the PhD Programme is English. All activities included the selection process, annual reporting, thesis writing and final defence, will take place in English.

#### **Article 10. Teaching activities and study plan**

The PhD professors Board sets up a study plan consisting in 60 credits per year for a total amount of 180 credits. These credits are matured through different activities, among which: courses, seminars, research activity, internship abroad, article and thesis writing, thesis defence. National and international partners will support teaching activities accepting PhD students at their home Institutions for attending seminars and PhD courses of interest according to the specific research areas and PhD thesis of the students. In the framework of this bilateral agreement, partners Institutions commit to accept PhD students for attending seminar and courses, without asking for enrolment and course attendance fees.

#### **STUDY PLAN (3 YEARS – 180 ECTS)**

<b>Activity</b>	<b>Total credits (ECTS) over 3 years</b>
Participation in courses	ECTS 12
Research activity abroad (1 ECTS per month)	MIN 3 ECTS – MAX 18 ECTS
Participation in international conferences with posters	1 ECTS
Participation in international conferences with oral presentation	2 ECTS
Participation in international research projects (EU, NSF, United Nations, etc.) related to the PhD activities	MAX 4 ECTS



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Parthenope

Participation in seminars cycles organized or approved by the PhD Professors Board (1 ECTS per year; 8 hours of seminars = 1 ECTS)	MAX 3 ECTS
Publications in scientific journals	from 1 to 3 ECTS per article
Literature review & Research activities in field or Lab	100 ECTS 40 ECTS 1° year 40 ECTS 2° year 20 ECTS 3° year
End of the year written report and oral presentation (4 ECTS per year)	10 ECTS
Thesis writing	40 ECTS
Language courses	3 ECTS
Internship in private company (1 ECTS per month)	MAX 4 ECTS
TOTAL	180 ECTS

#### **Article 11. Research activities**

The PhD students have to present their research proposal to the Professor Board during a meeting which will take place 1 month after the competitive examination. Parthenope University of Naples, in collaboration with the national and international partner Institutions, will ensure the proper development of research activities carried out by PhD students. Partner Institutions commit to accept PhD students for carrying out joint research activities without asking for bench fees.

#### **Article 12. Supervisors and Tutors**

The PhD Professors Board will assign to each PhD student one or more Supervisors taking main responsibility for supporting the development of his/her PhD research. The Professors Board could also assign one or more Tutors to each PhD student.

#### **Article 13. Student mobility**

All PhD students have to spend at least 3 months abroad visiting one of the partner Institutions or other Universities and Research Centres abroad. The mobility will be funded through the PhD scholarship (increased by 50% for the periods spent abroad), the Erasmus programme, specific funds related to research projects, and other *ad-hoc* funds.



*Università degli Studi di Napoli  
Parthenope*

#### **Article 14. Access to the PhD thesis defence**

The publication of at least 1 article in a peer reviewed international journal is compulsory to access to the PhD defence. An optimal result would be considered the publication of 2-3 articles in peer reviewed international journal.

#### **Article 15. Examination board and defence of doctoral thesis**

The examination board for the final defence will be composed of 3 members appointed by the Rector of the Parthenope University: one of them will belong to Parthenope University of Naples while the other two will belong to Italian or foreign universities. The final defence will take place at Parthenope University of Naples.

#### **Article 16: Awarding of the PhD title**

The PhD title will be awarded by Parthenope University of Naples. In case of "co-tutela" and double title it will be awarded by both partner Universities as indicated in Article 17.

#### **Article 17. Joint supervision ("Co-tutela") and double title.**

All PhD students can apply for a joint supervision ("co-tutela") and double degree released by two partner Institutions on the basis of a specific agreement. PhD students applying for the double degree will have to spend at least 6 months abroad at the partner University under the supervision of the professor in charge for the double degree.

#### **Article 18. Label of Doctor Europaeus**

All PhD students can apply for the Label of Doctor Europaeus. The Label of "Doctor Europaeus" refers to a quality label of the PhD degree to be conferred by European Universities, when the following four conditions have been fulfilled:

1. The PhD thesis defence will be accorded if at least two Professors from two higher education Institutions of two European countries, other than the one where the PhD thesis will be defended, have given a written judgement concerning the thesis.
2. At least one member of the jury should come from a higher education institution belonging to a European country, other than the one where the thesis will be defended.
3. Part of the defence must take place in one of the EU official languages, other than the one(s) of the country where the thesis will be defended.
4. The PhD thesis has been prepared as a result of a research period of at least one trimester spent in another European country.



Università degli Studi di Napoli  
Parthenope

**Article 19. UNESCO chair**

It is agreed that Parthenope University and Nicolaus Copernicus University in Torun, Poland are willing to apply for the UNITWIN/UNESCO Chairs Programme.

**Article 20. Protection of research results**

Research results and property rights over inventions shall always accrue to the Institution(s) where the invention was made. If the invention is the result of joint research, and divided title thereby arises, the partners shall determine their respective shares of that property by a separate agreement.

Protection of the research results arising from the doctoral research and the publication and exploitation thereof within the Institutions concerned shall also be determined in such agreement. Account shall be taken of the applicable regulations in every Country and every partner Institution.

**Article 21. Date and term of the agreement**

This agreement shall come into effect on the date of the signature of the Rector of Parthenope University of Naples and the Rector of Nicolaus Copernicus University in Torun, Poland.

This agreement is in force for 3 consecutive PhD cycles. The partner institutions have the right to resign from the present agreement by giving a written communication.

Parthenope University of Naples  
Via A. Acton 38, Naples, Italy  
Prof. Alberto Carotenuto  
Rector

**SIGNATURE AND STAMP**



**IL RETTORE**

*Prof. Alberto Carotenuto*

26 FEB. 2018  
....., [date],

Nicolaus Copernicus University in Torun, Poland  
ul. Gagarina 11, 87-100 Torun, Poland  
Prof. dr hab. Andrzej Tretyn  
Rector

**SIGNATURE AND STAMP**



Rektor

prof. dr hab. Andrzej Tretyn

2017-12-13  
....., [date],