

# Doctoral Degree Programme in Integrated Management of Water, Soil and Waste



A Joint Degree Programme by  
the United Nations University and Technische Universität Dresden



UNITED NATIONS  
UNIVERSITY

**UNU-FLORES**

Institute for Integrated Management  
of Material Fluxes and of Resources



**TECHNISCHE  
UNIVERSITÄT  
DRESDEN**

## BACKGROUND

United Nations University (UNU) was established in 1973 and currently it is comprised of over 15 Research Institutes and Programmes in 13 countries around the world. Even though postgraduate training was a huge part of UNU's history, it did not offer any complete degree programs until recently. In 2009 the UN General Assembly authorized UNU to grant and confer postgraduate degrees.

The Technische Universität Dresden (TUD) is one of the top universities in Europe: strong in research and considered first-rate with respect to the range and the quality of the study programmes it offers. As a modern comprehensive, multi-discipline university and with its 14 faculties it has a broad and diverse scientific spectrum. The large campus family of the TU Dresden is comprised of 37,000 students and approximately 7,900 employees.

The joint doctoral degree programmes established at the United Nations University Institute for the Integrated Management of Material Fluxes and of Resources (UNU-FLORES) and the Faculty of Environmental Sciences at TUD is the latest among the very few doctoral programs UNU currently offers.

The joint Doctoral programme in "Integrated Management of Water, Soil and Waste" by UNU and TUD is planned to start in **October 2014**.

## OBJECTIVE

The main objective of the Doctoral programme is to provide graduate students with detailed knowledge, critical understanding, strategies and tools to take an interdisciplinary and integrated approach towards the management of water, soil and waste.

The joint Doctoral programme aims at creating a new generation of environmental scientists, engineers and managers to conduct, promote and provide guidance on the sustainable management of water, soil and waste. These resources and their sustainable management are of concern to the United Nations and its member states, particularly to developing countries and emerging economies.

## HIGHLIGHTS

- The degree is jointly offered by the United Nations University and the Technische Universität Dresden, Germany;
- The focus of the programme is on integrated management of water, soil and waste using a nexus approach, making it the first of its kind;
- The programme has a strong focus on developing countries;
- Students have access to the facilities and services of TUD, one of eleven Universities of Excellence in Germany, as well as the network of UNU Institutes;
- Doctoral research includes close cooperation with UN agencies and programmes as well as other international organizations;
- Students have the opportunity to get internships at various UN agencies.

## ABOUT THE PROGRAMME

Considering that the theme of the joint Doctoral programme is new and unique in the academic world, prospective students are expected to come from a variety of backgrounds. To ensure that the students have an evenly-matched starting point, and also to introduce the basic concepts of the nexus of water, soil and waste, the programme comprises 35 course credits in addition to 175 dissertation credits. This total of 210 credits spans over 7 semesters. The credits are defined in terms of the European Credit Transfer System (ECTS).

All coursework is science-based and all courses require basic knowledge in physics, chemistry and mathematics at undergraduate level. In addition, the courses will also require basic knowledge in social sciences. In line with UNU-FLORES' research agenda, research topics for dissertations will be focused on solving current challenges related to the nexus of water, soil and waste. Courses will be offered by academic staff at both universities. Doctoral dissertations will also be co-supervised by advisors from both universities.

## CURRICULUM

The Doctoral programme includes mandatory and elective courses. The courses can further be categorized into thematic courses (to be taken in the first and second semester) and methodological courses. In addition, students have the opportunity to take courses at the recently established Graduate Academy of TUD. Courses and workshops offered in the framework of the Graduate Academy are of short duration (typically 1-2 days) and without credits.

Students devote the first semester to learning the basic concepts of the nexus of water, soil and waste as well as important aspects of governance and capacity development. The Doctoral students will also start working on their research topics during the first semester. Half of the second semester is again course-based while the other half is devoted to the preparation of the final dissertation proposal and its defence. In agreement with the Dissertation Supervisor, Doctoral students are allowed to choose additional courses focusing on specific skills required for their research topics. However, these courses will not be counted towards the grades. From the third semester onwards, Doctoral candidates will concentrate fully on their research topic.

## TUITION AND FEES

**This joint degree programme is tuition-free.**

For living costs and other expenses, applicants are encouraged to secure a sponsorship from different sources. A limited number of scholarships will be made available to qualified applicants by UNU-FLORES with contributions from various donors.



# ADMISSION REQUIREMENTS

Applicants are required to have basic knowledge in undergraduate level physics, chemistry and mathematics with a Bachelor's degree in one of the following fields:

- Engineering;
- Natural Sciences;
- Social sciences; or
- Other closely related field.

All applicants are also required to have a research-based Master's degree in environmental resource management.

Experience related to the nexus of water, soil and waste or environmental resource management will be considered an asset.

Since the programme is offered in English, applicants have to demonstrate proficiency in English. Recognized tests are:

- IELTS: required level 7.0
- TOEFL: required level for paper based test 600 points, internet based test 100 points.

## HOW TO APPLY

If you meet the requirements stated above, please send the following documents not later than **15 June 2014**:

- Filled application form (downloadable at [www.flores.unu.edu/phd](http://www.flores.unu.edu/phd) and [www.tu-dresden.de/uw](http://www.tu-dresden.de/uw))
- University degree certificates (Bachelor's and Master's) and transcripts (or mark sheets);
- Certificate demonstrating proficiency in English (see section above);
- Curriculum Vitae;
- Letter of Motivation;
- Two letters of reference.

All inquiries about the Doctoral Programme can be addressed to: [pginfo\\_flores@unu.edu](mailto:pginfo_flores@unu.edu)



**Please send your application package by post to:**

United Nations University  
Institute for Integrated  
Management of Material Fluxes  
and of Resources (UNU-FLORES)  
Ammonstrasse 74  
01067 Dresden, Germany

**or by email to:**  
[pgapp\\_flores@unu.edu](mailto:pgapp_flores@unu.edu)

**Tel:** + 49 351 8921 9370  
**Fax:** + 49 351 8921 9389  
**Website:** [flores.unu.edu](http://flores.unu.edu)