



VIU summer SCHOOL

**Environmental Management in a Changing World:
Coping with Sea Level Rise
11-23 July 2016
Isola di San Servolo, Venice**

Environmental Management in a Changing World: Coping with Sea Level Rise

Venice International University

**Summer Program in Venice
11-23 July 2016**

The Nicholas School of the Environment (Duke University) and Venice International University offer a Summer Program that provides training in key topics about the impact of sea level rise on coastal areas and cities, and about adaptation and mitigation strategies.

Program aim:

The symptoms of Global Warming, and in particular an accelerating sea level rise, are already detectable in several regions of the globe. The discussion, at a governmental level, on the importance of reducing greenhouse gas emissions is ongoing, but strategic decisions have to be taken soon in particular in regard to low-lying coastal areas and cities, considering that coastal areas less than 5 meters above sea level are home to roughly 200 million people worldwide (World Ocean Review 2013).

The course aims to give students a broad perspective on the impact of sea level rise upon coastal areas from the social, economic and environmental points of view. Adaptation and mitigation strategies will be analyzed and students will be involved in discussions on critical management issues, developing their own critiquing concepts in a multidisciplinary framework.

Participants will learn, in class and in the lab, the use of operational tools for coastal zone monitoring and management, and will participate in two field trips aimed at exploring the most up-to-date techniques for coastal defense and protection.

The Venice Lagoon will be used as a “laboratory”, the ideal setup to study the intertwined dynamics of human and natural systems. The Venice Lagoon is a diverse ecosystem providing invaluable services, which has been deeply transformed over the long history of the Venetian State and, in more recent years, by extremely impacting engineering works.

The area also has a rich history with people whose families have resided in the city for generations and have strong attachments to the area. Hence, it is an exceptionally well-documented case of the coexistence of the natural and the built environments, of the tension between sustainable and unsustainable uses of natural resources, and the potential for vigorous political controversy over possible adaptation strategies.

The MOSE system, the systems of gates currently being constructed to protect the city of Venice from extreme high tides, is just an example of the important infrastructures that the students will visit.

Courses

_ Global environmental change, global warming, changing oceans and sea level rise

Nicolas Cassar (Duke University)

_ Extreme events in coastal areas: data analysis and modelling

Marco Marani

(Duke University and University of Padua)

_ The impact of sea level rise and climate change on global water resources

Mario Putti (University of Padua)

_ Coastal wetlands ecology, restoration and management

Brian Silliman (Duke University)

_ Coastal environmental change processes: modelling and prediction

Andrea D'Alpaos (University of Padua)

_ Environmental monitoring of coastal morphology and water quality (lectures and labs)

Sonia Silvestri (Duke University)

_ Planning for Natural Hazards and Climate Change Adaptation in Coastal Areas

Gavin Smith (UNC Chapel Hill)

_ Climate change, sea level rise and global health in coastal areas

William Pan (Duke University)

Target

Graduate students and working professionals from any university, research institute, or other organization (private companies, government agencies, NGOs) with an interest in environmental issues and ability to read and write fluently in English. **Advanced undergraduates** will also be considered.

Number of students

The minimum number of students for the activation of the program is 15. The maximum number of students is 25.

Credits

This program is equivalent to **3 ECTS**.

This program has been included in the Master in Environmental Management (MEM) course listing at the Nicholas School of the Environment, Duke University.

Students that will successfully complete the course will receive **2 MEM Credits from the Nicholas School**.

Tuition and Fees:

Students from VIU member universities:

euro 850 (incl. 22% VAT)

Students from other universities:

euro 1250 (incl. 22% VAT)

Professionals:

euro 1800 (incl. 22% VAT)

The tuition and fees cover all teaching materials and field trips. Accommodation and meals are not included. Accommodation on campus will be available and must be booked and paid for separately.

VIU will also provide information to those who prefer to source accommodation in the city of Venice.

What they say about us

100% of participants rated the program as "highly valuable" in 2015.

"The classes and professors at VIU were incredible, I met so many wonderful people and learned a lot." student of 2015 edition

"Most positive [aspect]: Interdisciplinary nature of program" student of 2014 edition

"The facilities of VIU are great" student of 2014 edition

"[the most] positive aspect was the opportunity to network" student of 2014 edition



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