



Venice International University
VIU Graduate Seminar
Understanding and Managing Climate Change:
Coping with Sea Level Rise

July 10 – 22, 2017

Courses of the 1st week 10-15 July 2017

1. Causes and consequences of global environmental change and Sea Level Rise: available records, models and future projections (Georg Umgiesser, CNR)
2. Global warming and changing oceans: models and examples (Andrea Bergamasco, CNR)
3. Ecological aspects of the impact of global warming on life in the oceans (Fabio Pranovi, UNIVE)
4. Coastal ecogeomorphological processes: modelling of current dynamics and prediction of future changes (Andrea D'Alpaos, UNIPD)
5. Extreme events in coastal areas: data analysis and modeling (Patrick Willems, KU Leuven)

Monday, July 10 - Global environmental change and Sea Level Rise

9:00 - 9:15 *Welcome to the summer program- Ilda Mannino and Sonia Silvestri*

9:20 – 12:30 Georg Umgiesser – lesson and discussions

13:30 - 18:00 Georg Umgiesser – [interactive lab session](#)

Tuesday, July 11 – Global warming and changing oceans

9:00 – 12:30 Andrea Bergamasco - lesson and discussions

13:30 - 18:00 Andrea Bergamasco – [movie + round table](#) (chaired by Andrea Bergamasco, with the presence of Georg Umgiesser, Fabio Pranovi, Sonia Silvestri, Marco Marani)

Wednesday, July 12 – Ecological aspects of the impact of global warming on life in the oceans

9:00-12:30 Fabio Pranovi – lesson and discussions

14:00-18:00 [field trip to the Venice lagoon and Bocca di Lido](#) lead by Fabio Pranovi (co-tutor: Sonia Silvestri)

Thursday, July 13 – Models of coastal ecogeomorphological processes

9:00-12:30 Andrea D'Alpaos– lesson and discussions

14:00-18:00 Andrea D'Alpaos - [interactive lab session](#)

Friday, July 14 - Extreme events in coastal areas

9:00-12:30 Patrick Willems – lesson and discussions

14:00-18:00 Patrick Willems – [interactive lab session](#)

Saturday, July 15

9:00-11:00 time to study and to prepare final presentations

11:00 – 13:00 presentations

Courses of the 2nd week (17-22 July 2017)

6. The impact of sea level rise and climate change on global water resources (Mario Putti, UNIPD)
7. Physically-based modeling of coastal groundwater systems impacted by sea level rise: saltwater intrusion, land subsidence, and aquifer-ocean interactions (Claudio Paniconi, INRS)
8. Observations and monitoring systems for the management of coastal areas (Sonia Silvestri, DUKE)
9. Climate change, sea level rise and global health in coastal areas (William Pan, DUKE)
10. Social, economic and political impacts of sea level rise (Carlo Giupponi, UNIVE; Silvio Nocera, Iuav; Jacopo Bonetto, UNIPD; Giorgio Nubar Gianighian, Iuav)

Monday, July 17 - The impact of sea level rise and climate change on global water resources

9:00-9:15 *introduction to the second week - Sonia Silvestri*

9:15-12:30 Mario Putti – lesson and discussions

13:30-18:00 [field trip](#) to the Ca' Bianca Land Reclamation Management Consortium, lead by Mario Putti (co-tutor: Claudio Paniconi and Patrick Willems)

Tuesday, July 18 - Physically-based modeling of coastal groundwater systems impacted by sea level rise: saltwater intrusion, land subsidence, and aquifer-ocean interactions

9:00-12:30 Claudio Paniconi – lesson and discussions

14:00 – 18:00 Claudio Paniconi - [interactive lab session](#)

Wednesday, July 19 - Observations and monitoring systems for the management of coastal areas

9:00-12:30 Sonia Silvestri – lesson and discussions

14:00-18:00 Sonia Silvestri - [field trip](#) to the MOSE control room - Arsenale, Consorzio Venezia Nuova.

Thursday, July 20 - Social, economic and political impacts of climate change and sea level rise

9:15-10:45 Carlo Giupponi: Case studies on Local Impacts of Climate Change on Different Economic Sectors

11:00-12:30 Silvio Nocera: Understanding and Managing Climate Change in Transport Planning.

14:00-15:30 Jacopo Bonetto, Filippo Carraro and Maria Chiara Metelli: Sea level rise and its impact on the coastal cultural heritage: the case study of Nora (Sardinia).

15:30-16:45 Giorgio Nubar Gianighian: Could History be of any Help?

16:45-18:00 [round table](#) (chaired by Carlo Giupponi, with the presence of Sonia Silvestri, William Pan, Marco Marani, Silvio Nocera, Jacopo Bonetto, Filippo Carraro and Maria Chiara Metelli)

Friday, July 21 - Climate change, sea level rise and global health in coastal areas

9:00-12:30 William Pan – lesson and discussions

14:00-18:00 William Pan – [interactive lab session](#) (and/or [mosquitos' collection](#))

Saturday, July 22

9:00-11:00 time for studying and for preparing final presentations

11:00-13:00 final presentations

13:30 closing ceremony and lunch

Take home test for Duke MEM students only: final test on the topics of the courses due two weeks after the end of the graduate seminar.

