The NCED Summer Institute started in 2009 with the idea of creating an interdisciplinary school focused on the dynamics of the Earth surface. The school is organized in 10 days with morning and afternoon sessions. The students will attend the classes and will also have scheduled time for working group projects. The idea is that the students will divide in working groups corresponding to a topic/lecturer of interest and will present their project the last day of school in a 30 minutes presentation.

**Past editions**

2009 – Complexity and Predictability in Earth Systems
2010 – Rivers and Vegetation

**Future editions**

2012 – Prediction under environmental change

**Program**

*note that breakfast and lunch are provided at St. Anthony Falls Lab on 8/11, 12, 13, 14, 15, 17 and 19. Vouchers for on campus breakfast and lunch are provided on 8/16 and 18. Dinners are on your own unless otherwise announced. There are several restaurants and pubs on Main Street, just up the hill from the laboratory.

AM session 1: 8:30 to 10:15
AM session 2: 10:45 to 12:30
Lunch break
PM session 1: 2:00 to 3:45
PM session 2: 4:15 to 6:00

*Note: Sunday morning session will start at 9 a.m. (9-10:45 and 11:15-1 pm).

**Note: WG = Working Groups
August 10 – Wednesday (SAFL)
PM session 2: Introduction to NCED (Efi Foufoula) & Tour of SAFL (Karen Campbell)
Evening: Icebreaker with posters at SAFL

August 11 – Thursday (SAFL)
AM session 1: Deltas over a range of time scales, part 1 (Chris Paola)
AM session 2: Deltas over a range of time scales, part 2 (Chris Paola)
Lunch
PM session 1: Deltas in the stratigraphic record (Andy Petter)
PM session 2: Modeling methods for deltas (Vaughan Voller)
Evening: Dinner on your own

August 12 – Friday (SAFL)
AM session 1: Feature extraction and analysis of tributary and distributary systems (Paola Passalaqua)
AM session 2: Coastal Modeling (Andrew Ashton)
Lunch
PM session 1: Ashton experiment
PM session 2: Delta Modeling (Doug Edmonds)
Evening: Dinner on your own

August 13 – Saturday (SMM; SAFL)
AM session 1: Streamflow variability and related impact on below-ground biomass dynamics (Paolo Perona)
AM session 2: Long term coastal evolution processes (Ad van der Spek)
Lunch
PM session 1: Modeling delta growth (Gary Parker & Enrica Viparelli)
PM session 2: Modeling delta vegetation (Gary Parker & Enrica Viparelli)
Evening: Dinner on your own

August 14 – Sunday (SMM; SAFL)
AM session 1: Broader impacts: Taking science to broader audiences (Karen Campbell)
AM session 2: Visit of the Big Back Yard: an NCED-Science Museum of MN collaboration (Karen Campbell)
Snack (11:30)
PM session 1: Delta ecosystems (Robert Twilley) & snack
Lunch
PM session 2: Delta ecosystems (Robert Twilley)
Evening: Dinner on your own

August 15 – Monday (SAFL)
AM session 1: Briefing — The power of experiments (Gordon Grant)
AM session 2: The power of experiments – hands on flume session (Gordon Grant)
Lunch
PM session 1: The power of experiments – hands on flume session (Gordon Grant)
PM session 2: process data
Evening: Dinner on your own
August 16 – Tuesday (Computer Lab)
All day clinic in teaching with numerical models (Irina Overeem)
Lunch on your own
Evening: Dinner on your own

August 17 – Wednesday
AM Session: Stochastic aspects of deltas (Efi Foufoula)
AM Session 2: Cohesive sediment (Han Winterwerp Deltares/TU Delft)
PM: Free
Lunch and Dinner on your own

August 18 – Thursday (Rapson Hall)
All day session on using the CSDMS modeling tool (Irina Overeem)
Lunch on your own
Evening: Dinner on your own

August 19 – Friday (SAFL)
AM session 1: Final Presentations
AM session 2: Final Presentations
Lunch
Departures