Teaching will work in collaborative research teams with graduate students conducting state-of-the-art computational research in environmental engineering. The program will include instruction on computationally-based research on the environment and the design of age-appropriate, content-rich, inquiry-focused learning activities for middle or high school students. In particular, we will learn how computational exploration of the environment relates to new curriculum developments in Next Generation Science Standards, including engineering and modeling. Example research projects include climate change impacts on nutrient cycling in the Great Lakes, effects of land use change on water quality in watersheds and inland lakes, and life cycle assessment of consumer products.

The summer 2017 program has three sessions:

1) May 8-June 11: introduction to the program and development of research topic, work remotely from home or school (2-4 hours/week)
2) June 12-July 2: continue development of research topic, self-paced skills development in basic research tools (Excel, Google tools, etc.) work remotely from home or school (10-15 hours/week)
3) July 9-August 10 (Mondays to Thursdays): intensive research, continued research skills development, poster session, on campus at Michigan Tech (30-40 hours/week)

**BENEFITS**

- Teachers will be paid stipends of $6,000 for participating in the 2017 summer research program and $3,000 for participating in the 2018 summer research program (optional).
- Costs for traveling to and from and for room and board at the 2017 summer program will be paid.
- An allowance for purchasing software or related supplies and for substitute teachers for teachers’ schools will be available for the 2017-18 school year.
- Teachers can earn graduate credit or State Continuing Education Clock Hours (SCECH) for participating in the 2017 summer program.

**TEACHER RESPONSIBILITY**

- Participating teachers will be expected to:
  - Participate in all elements of the summer 2017 program, including the five week on-campus portion.
  - Complete and deliver lesson plans during the 2017-2018 school year.
  - Attend a science teaching conference in the 2017-2018 school year to disseminate the curricular materials developed in the program (travel costs will be paid by the PLACE program).
  - Attend the summer research program in summer 2018 by teleconference (optional).

**LOGISTICS**

- Applications for the summer 2017 program are due by February 22, 2017.
- Applications are available at the PLACE website: [https://sites.google.com/a/mtu.edu/ret-place/](https://sites.google.com/a/mtu.edu/ret-place/)
- Applicants will be selected by March 1, 2017.