

# Teacher-Scholar Cohort Development Grant Proposal

## Improving STEM Pedagogy for Women and Non-majors

**Background:** The Women in Math and Science (WIMS) group has been focused on workshops for students on a variety of topics, including work-life balance, salary negotiations, and other difficult-to-navigate situations for women, especially for those in male-dominated fields. While our workshops have been helpful, relatively few students attend because the students do not see the value in such groups because of the danger of the “f word” on campus (i.e., feminism) and because Washington and Lee has relatively high representation of women in math and science. WIMS is rethinking its role on campus and how to effectively reach women students. Furthermore, WIMS faculty have found that our meetings are quite rejuvenating and informative for us. For example, this past summer, the WIMS faculty gathered for weekly lunches to build our community, welcome newcomers, and discuss a variety of topics, including approaches to interactive teaching, possible candidates for student fellowships, and how to apply successfully for research grants.

**Methodology:** One way that WIMS faculty can effectively reach women students--both STEM majors and non-majors--is through our teaching. STEM teaches analytical and problem-solving skills that students often do not realize are transferable. Research has shown that women and other groups underrepresented in math and science respond to more accessible and collaborative teaching methods. The IQ Center allows many new and exciting opportunities to employ both those methods, e.g., with new ways to visualize models/data/results and specially-designed collaborative spaces. WIMS would like to begin discussions on the use of the IQ Center for pedagogy and research on how we can make STEM more relevant and accessible for women and our non-majors, culminating in a faculty academy session (likely during the 2014 Fall Faculty Academy).

**Goals:** From our discussions, we want to generate ideas on how to leverage the IQ Center to improve our pedagogy and research, in general, and make STEM more relevant and accessible for women and non-majors. We expect these ideas to be inter- and cross-disciplinary. Time-permitting, we would like to begin implementing some of these ideas during the Winter and Spring terms. We will have a panel session during the 2014 Fall Faculty Academy about our approaches, the successes, and failures.

### **Budget:**

- Lunch: \$1000
  - 10 lunches
  - 10 faculty per lunch
  - \$10 lunch cost

During the summer, we had between four and ten faculty at each lunch. We expect with the incentive of “lunch money” and a focused discussion we will average closer to 10 faculty attending each lunch. We estimated 10 lunches for the academic year: two each during the months of October, November, January, February, and March.