Empowering Women in STEM: Librarians Leading the Way
Laura Palumbo & Connie Wu, Rutgers University Libraries

"We have a hunger of the mind which asks for knowledge of all around us, and the more we gain, the more is our desire; the more we see, the more we are capable of seeing.”
Maria Mitchell, 1818-1889, Astronomer, Teacher, Librarian

About Us:

Laura Palumbo, PE
Chemistry & Physics Librarian
Laura is a licensed professional engineer, and worked for many years in engineering before becoming a librarian. She knows firsthand the unique obstacles facing women in STEM fields, and believes solutions to these problems can be found by librarians in academic.

Connie Wu
Engineering & Patents Librarian
Connie has a degree in Mechanical Engineering, and has worked as an engineer and also as a patents examiner for the China Patents Office. Connie enjoys teaching inquisitive science students; and has previously taught the Byrne seminars on patents.

Why a Course About Women in STEM?

Laura and Connie have previous experience as engineers, and know the challenges women face working in predominantly male fields. We realize that many female students do not have enough confidence in their abilities to pursue STEM careers, and feel it is important to inspire them to do so. We also strongly believe that librarians need to become more involved in teaching, to help produce critical thinkers in the new generation of researchers.

The Gender Gap

Why Does the Gap Persist?

- Women don’t feel they fit in with the stereotypical STEM student or worker
- A subtle gender bias still exists which favors males in STEM
- Women underestimate their abilities in STEM
- Lack of work-family balance contributes to attrition from STEM for women
- Many women have family responsibilities and challenges outside the STEM environment

Course Description

The course is a one semester long, 1 credit seminar for freshmen, with a grade of Pass/Fail. The seminars are designed to spark an interest and introduce students to research.

This course will:
- Explore careers in STEM
- Review the literature and discuss reasons for the gender gap in STEM
- Develop research skills by exploring work of Rutgers women scientists
- Visit the labs of a female scientist and engineer
- Explore little known past and present contributions by women in STEM
- Edit Wikipedia to create entries for women in STEM
- Participate in a Final presentation about an interview with a woman working in STEM, or ways to empower other women in STEM

Course Goals

Students will:
- Become familiar with fields in Science, Technology, Engineering, and Math
- Be aware of the career opportunities in STEM
- Learn about present and past contributions of women in STEM
- Receive an introduction to scholarly research
- Meet women researchers in science and engineering
- Understand the various reasons for the existence of the ongoing gender gap in STEM
- Contribute to society’s awareness of women’s achievements in STEM

Course Assessment

First and last class survey of:
- Knowledge of career opportunities in STEM
- Awareness of research about women in STEM
- Reasons for the gender gap in STEM
- Knowledge of contributions by women in STEM
- Desire to pursue a STEM field

In addition, Rutgers Center for Teaching Advancement and Assessment Research will conduct an end of course student survey

Background Image from NASA: http://apod.nasa.gov/apod/ap100309.html