Make A Difference: Teach for WTP this summer!

The MIT Women’s Technology Program (WTP) is a four week summer experience to introduce top math and science high school girls to engineering and computer science. Many WTP alumnae are now MIT students; others are studying engineering and computer science at other colleges, so this program really makes a difference and sparks their interest in these fields! View this YouTube video https://tinyurl.com/WTPMIT to learn more about WTP!

Residential Tutor Job: Women’s Technology Program in EECS - 2019

The EECS curriculum introduces students to computer science, electrical engineering, and mathematics topics related to EECS. Tutors assist in one of the class subjects: EE, CS, or Math. They work as TAs in weekday class sessions, lead evening and weekend office hours, and live in the dorm with the high school students. We need several Tutors for each subject below (course descriptions are from the 2018 summer curriculum, and may change slightly for 2019):

**Computer Science:** an intensive introduction to thinking computationally and programming in Python, with challenging conceptual exercises and daily programming assignments. Topics include the basics of computer science (variables, lists, loops, functions, and classes) and introduce graphics. Although the students all arrive at WTP with no prior programming experience, by the end of the third week they complete a hangman game as well as a fully functioning game of Tetris.

**Electrical Engineering:** introduces several core topics in electrical engineering, including analog electronics, system theory and signal processing, device physics and semiconductors, and digital electronics. Short lectures, readings, and homework prepare students for daily hands-on labs exploring real-world applications of electrical engineering, with emphasis on experimentation, design, and troubleshooting. Students complete several complex projects, including Arduino microcontroller projects that also apply programming skills learned in the Computer Science course.

**Mathematics for EECS:** covers a range of math concepts, ideas and tools applicable to electrical engineering and computer science. Topics may include: binary numbers, Boolean algebra, probability, algorithms, recurrences, number theory, information theory, and game theory. Homework focuses on writing proofs, thinking critically, and learning problem-solving at a college math level.

**Requirements:** Residential Tutors must be current female undergraduates (or recent graduates) of MIT or Wellesley and age 18 or older. The best Tutors have a dedication to mentoring and teaching and enthusiasm for EECS that they want to communicate to younger women.

**Schedule:** This is a paid full-time position, $700/week for 7 weeks, June 17 – August 2, 2019, plus MIT dorm housing and free food.

It is important that you have NO other responsibilities or jobs June 17 – August 2, 2019.

This job requires true commitment and dedication…

...but it is also lots of fun and very rewarding!

See next page for more details about the job responsibilities and How to Apply
WTP-EECS 2019 Residential Tutor Job Description

Schedule: Monday, June 17 through Friday, August 2, 2019. This is a paid full-time position, $700/week for 7 weeks, plus MIT dorm housing and free food. Tutors may not have any other jobs, classes, or responsibilities during these 7 weeks.

WTP will reserve and pay for dorm Housing for Residential Tutors from 6/17-8/2. Please note: WTP cannot provide housing for the summer weeks before or after WTP; it is up to the Tutor to make her own arrangements. Dorm location is not yet determined for 2019 and move-in date may possibly change (this depends on when MIT Housing allows us to start).

June 17-28 Staff Training: Meetings and class preparations, Mon-Fri roughly 9:30am - 4pm.

June 29 - July 27 WTP in Session: WTP high school students are on campus. Make the dorm your primary residence; you must sleep there unless it is your assigned night off. Your will have a work schedule that includes working most weekdays in the classrooms, running homework sessions in the evenings, and leading social activities and field trips on weekends. There is a rotating schedule of days/evenings off.

July 28 – August 2: Final wrap-up: pack up classroom and dorm materials, help write college recommendation letters for the WTP students. Clean out your own dorm room and leave in move-in condition. Help clean dorm common areas.

WTP-EECS Residential Tutor Responsibilities:

- **Overview:** Be a mature influence and role model; provide the WTP students with emotional support and encouragement and work to ensure their safety and well-being. Residential Tutors are friendly to the WTP high school students, but they are also figures of authority and responsibility. It is very important that staff report anything that might require counseling, medical attention, or judicial follow up as soon as possible to the WTP Track Coordinators to ensure the safety of the WTP students. Monitor that students sign out when leaving the dorm so we know where they are, especially if they are leaving campus. Know the WTP emergency procedures and when to contact MIT Police or Medical.

- **Academic:** During the 2 weeks before WTP students arrive, help prepare classes and labs, and attend all staff training sessions to prepare yourself for the Tutor role. After students arrive, work in your assigned classroom (EE, CS, or Math) during class hours. Set up labs, prepare class materials, assist students with concepts, assignments and projects, and correct homework. Tutor WTP students in the evenings and weekends; lead office hours and labs. Assist with the Motor Building project, supervising students on shop machines and helping with motor designs (we will train you). At end, help wrap up the curriculum for next year and help write WTP student college recommendation letters.

- **Residential:** Assist with Orientation Weekend activities June 29-30: accompany bus or cabs transporting students between Logan Airport and MIT, help students settle into the dorm. You must make the MIT dorm your primary residence and spend nights in your assigned WTP dorm room when the WTP students are in residence, unless it is your scheduled off-duty night. Evenings when you are on-duty: check-in your assigned WTP students (at 11pm Sun-Thurs, midnight Fri & Sat); make sure all students are accounted for, reporting any problems immediately to the EECS Track Coordinator (Cynthia Skier). Be sure that no overnight guests (non-WTP people of either gender) stay overnight in the WTP student or staff rooms or common areas (MIT Housing rule). Help students and staff keep the floor common areas organized, clean, and stocked with group supplies. If the dorm we are in this year has a kitchen, help with cooking some meals or baking with the students. At program end, help students pack and ship items home.

- **Social:** Socialize and dine with the students, evenings and weekends; talk with them about MIT, prospective majors, and college life, and be a person they feel they can approach with problems or concerns. Initiate and lead activities and entertainment in the dorm (such as board games, movies, crafts) and communicate information about these activities to students. Promote interaction and activities with the WTP-ME curriculum track. Help plan safe and fun field trips and other group outings, and accompany students. If in doubt about whether an activity is appropriate, or if tickets or MBTA fares are needed, talk with the EECS Track Coordinator (Cynthia Skier) before offering the activity to students.

- **Attend EECS staff meetings (Monday – Friday, tentatively 4:15-5:15pm) while WTP students are on campus, reporting any difficulties they may be having. Work with other staff to help communicate with the students and address any problems.

Most of all: do everything you can to make the WTP experience fun, educational, and safe for our students!

This job requires commitment, dedication and long hours, but it is also lots of fun and very rewarding!

To Apply:
1) Complete the [WTP-EECS Residential Tutor Application 2019](https://tinyurl.com/Tutors2019) AND
2) Email to wtp-eecs@mit.edu your Resume AND most current Grade Report/Unofficial Transcript. If you are a first-year student and do not yet have a grade report, indicate that in the email text.

MIT requires all WTP Staff to undergo a background check before hiring, and sign the [MIT Code of Conduct for Programs Involving Minors](#).