Make A Difference: Teach for WTP this summer!

The MIT Women’s Technology Program (WTP) is a four-week summer academic experience to introduce high school students to engineering and computer science in the summer after 11th grade, and spark their interest in pursuing these fields. Many WTP alums are now MIT students; over 64% study engineering or computer science no matter what college they attend, so this program really makes a difference!

Due to the COVID-19 pandemic, WTP 2021 will be a virtual online program, not residential on the MIT campus. However, we will work together to create community building activities for the students that encourage them to collaborate and learn together, build friendships, and engage with each other and the curriculum.

Zoom class sessions will take place synchronously Mon-Fri 10am-5pm ET, with additional evening homework help office hours staffed by Tutors. In addition, all Tutors will help create and lead evening and weekend fun activities to develop teamwork and build social connections between the students and a supportive WTP learning community.

The best Tutors have a dedication to mentoring and teaching and enthusiasm for EE, CS, AI&D and STEM education that they want to communicate to high school students. Tutors also act as role models for the WTP students.

Tutor Role: Women’s Technology Program in EECS - 2021
Tutors will assist as TAs in one of the 3 class subjects: EE, CS, or AI&D. We need several Tutors for each subject (see below). The course descriptions are preliminary; summer 2021 WTP-EECS Instructors (MIT EECS PhD students) are in the process of creating that virtual curriculum during the spring semester.

Computer Science: 4 Tutors: The computer science curriculum is a fast-paced introduction to thinking computationally and programming in Python. The course is designed for students with no prior CS experience, but moves very quickly to cover fundamental topics such as data types, lists, loops, functions, and objects. Students complete challenging conceptual exercises and daily programming assignments, with an extensive final project.

Electrical Engineering: 4 Tutors: The EE curriculum introduces fundamental analog and digital electronics through short lectures, readings, homework, and hands-on projects, with emphasis on experimentation, design, and troubleshooting. We are currently exploring what is possible in a virtual format for minor students to do at home. We expect to send students kits and equipment that will allow them to build and test projects.

Artificial Intelligence & Decision-Making: 2 Tutors: The AI&D curriculum provides an accessible introduction to foundational mathematics of AI&D, simple supervised and unsupervised machine learning algorithms, applied machine learning across a range of disciplines, and societal inequities in AI&D as well as some of the current approaches to addressing these inequities. It will be taught through short lectures, tutorials, demos, readings, guest lectures, and reflexive exercises.

All 10 Tutors: Will help create and run community building activities with the students. All Tutors will also assist with the 4-day Energy and Motors curriculum taught by Prof. Steve Leeb during the 4th week students are in session (more details about this during staff training).

Requirements: Residential Tutors must:

- Be current MIT undergraduates, MEng/MS students, or 2021 graduates, and
- Be age 18 or older by June 26, 2021, and
- Be living in the U.S. during the 8 weeks of WTP (MIT requires for payroll)
- Have enough knowledge of one of the classes (EE, CS, or AI&D) to be a course TA.
- Be flexible, creative, and adaptable as we create a new virtual WTP for the students

Schedule: This is a paid full-time position, $750/week for 8 weeks, June 7 –July 30, 2021.
It is important that you have NO other paid jobs and can devote 100% if your time to WTP during those 8 weeks.

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 2021 Tutor Job Description

Time Commitment: Monday, June 7 through Friday, July 30, 2021. This is a paid full-time position, $750/week for 8 weeks. Tutors should not have any other jobs, classes, or responsibilities during these 8 weeks. You will work remotely from home using Zoom, Slack, and other platforms (still to be determined).

WTP is not providing housing or food for staff this summer; the program is virtual, not residential.

June 7-25 Staff Training: 3 weeks of zoom meetings and class preparations, Mon-Fri roughly 10am – 5pm ET. We will finalize the curriculum and delivery platforms, test equipment and homework, train in working with minors (do's and don'ts), practice our teaching skills, and develop ways to promote fun, collaboration, problem-solving persistence and critical thinking -- even though we are connecting online, not living together in the dorm. We also will plan Orientation activities for the first weekend the students “arrive” to help them get acquainted, set up their computers and Kerberos identities, get safety training for building things at home. Some of us will put together boxes of things to ship to students (EE project kits, equipment, safety classes, swag-- logistics TBD).

Sat. June 26 – Fri. July 23: WTP in session 4 weeks: WTP high school students are present online. Begins with weekend Orientation events Sat 6/26 and Sun 6/27 to welcome the students, prepare them for their classes. Weeks 1-3: work Mon-Fri in one Zoom course daily (EE, CS, or AI&D), review and correct student homework outside of class time, run office hours evenings and weekends, and lead/participate in fun social activities to build community. Week 4: assist in the 4-day Energy and Motors Projects taught by Prof. Leeb, helping the students build various kits. Last Day 7/23: Student presentations and farewell events.

July 24 – 30: Final Staff wrap-up: help Instructors organize class notes and materials for next year. Share thoughts about student achievements and growth at WTP for inclusion in letters of recommendation we usually write for them for their college applications.

WTP-EECS Tutor Responsibilities:

• **Academic:** During the 3 weeks of staff training before WTP students arrive: help prepare classes, attend all staff meetings to prepare yourself for the Tutor role. Once WTP students are in session, work in your assigned classroom (EE, CS, or AI&D), preparing daily class materials, running class Zoom sessions, helping students build, write code, and complete assignments. Introduce students to concepts, encourage them to persist completing projects, conduct scheduled evening and weekend office hours. Note which students may need extra help, and consult with other staff about how to provide this.

• **Community:** Socialize with the students and other staff in group sessions evenings and weekends. Initiate and lead fun activities such as game nights, birthday celebrations, virtual tours of MIT and Boston- what other ideas might you have? Promote collaboration, working together to brainstorm and problem-solve. Talk with them about MIT, prospective majors, and college life, research or internships you’ve done; be a person they feel they can approach with questions about academics and possible future career directions. Help students gather photos and create a “Monthbook” of their WTP experience.

• **Role Model:** Be a mature influence and role model; provide the WTP students with support and encouragement to ensure their well-being as they are challenged by the WTP curriculum. Tutors are friendly to the WTP high school students, but they are also figures of authority and responsibility (we will go over the necessary boundaries with minors during staff training.)

• **Staff Meetings:** Mon – Fri, 5:00-6:00 pm ET while WTP students are in session June 28 – July 23.

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

To Apply: We welcome candidates from all MIT departments; you do not have to be a Course 6 major!

1) Complete the **Tutor Application Form** at: https://forms.gle/BjArQeTHoTs2AEHU9 AND

2) Attach in an 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 grades, send a screen shot of your Websis report showing your fall 2020 class schedule.

WTP follows the MIT Rules for Protection of Minors in Online Programs

And the Do’s and Dont’s of Working With Minors

All WTP Staff must undergo a background check before hiring, per MIT requirements for protecting minors.