Partner with us to share your STEM passion with talented high school students!

We're seeking MIT departments or individuals to pilot the design and implementation of a virtual Project-based course for our <u>award-winning</u> MOSTEC Program this summer! Learn more about our work and the impact you can make below.

About MIT OEOP

We're on a mission to advance diversity and excellence in STEM by providing free pre-college enrichment programs for middle and high schoolers from underrepresented backgrounds and underserved communities. Through our MITES, MOSTEC, and SEED Academy programs, students have the opportunity to deepen knowledge, embrace confidence, cultivate community, and pursue their passions for STEM at the nation's top colleges and beyond.

We serve 350+ students per year from a diversity of backgrounds all across the country
- 60-70% from families experiencing economic hardship
- 80+% from backgrounds historically underrepresented in STEM
- 45-50% will be first in their families to attend college
- 50+% identify as female

Our scholars go on to attend top-tier universities and earn degrees in STEM
- 1 in 5 attend MIT
- Over the past 10 years, 83% of our alumni have earned a BachelorS's degree in a STEM field
- 90% of OEOP alum attended most selective colleges and universities

About MOSTEC

MOSTEC is an online STEM enrichment program for rising high school seniors that begins in late June and ends in mid-December of students' senior year in high school. During the summer of the MOSTEC program, which we call the "Academic Phase," students take 2 engaging college-level online courses – 1 STEM-based "Project Course," and 1 "Core Course" in either Calculus, Physics, Science Writing, or Intro to Computer Science.

MOSTEC Project Courses occur in the summer and are 5.5 weeks long (June 22-Aug 3).
- Project Course instructors are responsible for creating and implementing an Online college-level course curriculum.
- Project Courses utilize the "Flipped Classroom" model and meet for 2 hours per week (via zoom)
- Project courses culminate in a final group project to be presented at the virtual symposium in August.

MOSTEC Project Courses can cover a vast range of content areas
We are open to any STEM topic that can be made into a rigorous, engaging and interactive course for the online space. Potential Project Course topics include (but are not limited to): *Machine Learning, Oceanography, Climatology, MechE or Applied Physics, Environmental or Civil Engineering, Computational Biology, and Materials Science.*
<u>Click here to view past project course offerings and descriptions.</u>

MOSTEC

Office of Engineering Outreach Programs

Designing a MOSTEC Project Course

In designing a course for MOSTEC, we advise potential instructors to consider the following:

- What would you call the prospective course?
- How would you "pitch" this course to students? (aka describe it in 1 paragraph)
- What are the primary learning goals (3-5) for the course (What specific skills do you hope students would be able to leverage by the end of the 5 weeks?)
- What prerequisites (if any) will students need?
- What materials or software will students need?

TIMELINE / SCOPE

The MOSTEC Academic Phase moves quickly, but our students are up for the challenge! Students can expect to spend ~10-12 hours per week on your course during the summer. Three of these hours are "in class" time, and the rest is to be spent asynchronously on assignments.

If you're interested in joining our team, staff begin with training on June 1st. To get a sense of the summer timeline, view slides 9-10 and 16 of the MOSTEC informational slides.

RESOURCES & SUPPORT

We provide a standardized course syllabus template, a Google Classroom, and a Slack channel for each course.

Our Curriculum & Instructional Support Specialists are available for support as you design your course.

We pay $30 per hour. Instructors are allotted ~160 hours over the course of their employment if they're teaching the course by themselves. Instructional teams may split the hours up.

For additional details about the responsibility of MOSTEC Project Course Instructors, view the job description.

If you or your department is interested in exploring this exciting opportunity, please reach out to a member of the OEOP to setup a time to talk:

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MOSTEC