Summer Science Teaching Experiences for Undergraduates (TEU) offers participants an immersive summer experience in secondary science education at Trinity College. Selected from a national network of 60 liberal arts institutions, TEU participants earn a generous stipend, take a 60-hour course in science teaching methods, and apply what they’re learning to teaching high school students under the supervision of a master teacher.

A six-week summer program funded by the National Science Foundation, TEU aims to develop future educational leaders. If you are committed to a career in secondary education or seriously interested in exploring the possibility of such a career, apply now.

Apply Online: TEU.vassar.edu
Application Deadline: February 28, 2016
Acceptances Announced: March 15, 2016
Program Start Date: June 20, 2016

TEU participants receive:
Stipend ranging from $2,500 to $3,500
Travel expenses to and from Brown University
Books and course materials
Housing (dormitory-style single rooms)
Three meals a day in the campus dining hall
Funding to attend national or regional conference on STEM education

TEU participants complete:
60-hour methods course in math content and pedagogy
Four-week teaching practicum under the supervision of a mentor
Daily debriefing sessions with the mentor
A teaching portfolio with lesson plans and teaching materials
A self-assessment demonstrating growth in teaching
A post-summer science education leadership project at his/her home institution
Methods Course
The equivalent of at least a semester-long course, the science pedagogy course is taught by the TEU director of science education. This course introduces basic principles and best classroom practices for effective classroom teaching of secondary science. Specific areas of focus include: unit and lesson planning; preparation of laboratory exercises and laboratory safety; active learning in science; formative assessment with a focus on individual students; implementation and integration of technology in science classrooms; Next Generation Science Standards for Practice; and the development of scientific habits of mind and literacy in students. Assignments for the course include daily readings, weekly reflections, an end-of-course self-assessment, and a closing conference.

Teaching Practicum
During weeks three through six, participants work in teams of two, teaching a science class of their own design. The high school students in these classes are from the Hartford Magnet Trinity College Academy (HMTCA), a partnership between a public high school in Hartford and Trinity College. Trinity and HMTCA have an established and innovative early college program that includes a required two-week summer science enrichment class for rising sophomores. All students engage in an authentic research project. Each of the six groups takes responsibility for small parts of a bigger research project, does the field work required for the project, and presents the results at the end of the summer session. Beyond this collaborative research project, the pairs of TEU participants are free to plan additional experiments and other activities according to their interests and the students’ needs. A mentor, either the TEU director of science education or a local master teacher, closely supervises each teaching team. The mentor monitors each class, provides feedback, and contributes professional expertise in classroom management techniques and lesson design. Each team debriefs daily with their mentor. The Trinity TEU also includes a few special speakers (a young professional forensic scientist who herself attended HMTCA has been a popular speaker each year) especially focused on careers in science.

Post TEU Activities
Leadership Project
Following the summer program, TEU participants will undertake a STEM leadership project at their home institution. Such a project might be: serving as a science teaching assistant; peer tutoring; conducting a workshop on implementing the Next Generation Science Standards for other pre-service teachers at their home institution; serving as peer advisor for standards-based lesson planning; organizing or tutoring in an afterschool tutoring program at a local school; or giving a campus talk about science teaching and the TEU program. At the project’s conclusion, participants will submit a brief report.

Conferences
To support ongoing connections among participants and to contribute to their leadership development, TEU will provide funds to send students to a relevant STEM meeting in the year after their participation. Relevant STEM meetings include those sponsored by the National Science Teachers Association as well as many other STEM discipline-specific educational organizations. In addition, TEU will host follow-up conferences for TEU participants. The conference for 2016 and 2017 participants will take place in 2018. The conference for 2018, 2019, and 2020 participants will take place in 2020. Participants will attend workshops and have the opportunity to give poster and oral presentations describing the ways in which they have built on what they learned since the summer program.

Logistics
Accommodations
Participants are housed in single rooms in dormitory-style housing. Three meals a day are provided in the campus dining hall.

Stipend and Expenses
Stipends for participants range between $2,500 and $3,500 based on their financial aid status at their home institution and whether or not they choose to receive degree credit for the pedagogy course. Travel expenses to and from Brown University are reimbursed, and books and other course materials are provided.