

meriSTEM Project Team

Science Education Short Video Production

Internship available for Semester 2, 2021

The meriSTEM project (meristem.anu.edu.au) is an initiative of the Research School of Physics, within the College of Science at The ANU. It aims to improve secondary education by developing and distributing high quality secondary STEM education resources, with the goal of enabling secondary science teachers to switch to the flipped classroom pedagogy and a more active classroom.

meriSTEM caters to students and teachers of year 11 and 12 physics, chemistry, biology, and Earth and environmental science. All resources are created by expert volunteers and provided free and Creative Commons licensed to Australian teachers and students through the Open edX platform (courses.meristem.anu.edu.au).

Over 200 people – from professors to undergraduate students to local teachers - have contributed to meriSTEM in the last five years. An opportunity exists for a high-achieving student to create lasting content for students across Australia.

Project: Science Education Short Video Production

Internship Details:

- Internship Availability: Semester 2, 2021
- Internship Discipline: Physics; Chemistry; Biology; Earth Sciences; Science Communication
- Internship Level: Undergraduate 2nd or 3rd yr, or Postgraduate coursework
- Available to International Students: Yes
- Preferred Project Skills:
 - Science content knowledge (Chemistry or Physics)
 - Interested in science education and communication
 - Ability to work independently
- Clearances Required: Working With Vulnerable People (WWVP) card preferred but not essential
- Location: Building 38, Science Road, ANU; may be conducted entirely on campus, or up to 50% remotely
- Host supervisor: Tim Friel, meriSTEM Liaison Officer (Ph office: 02 6125 7011, M: 0418 208 637; E: tim.friel@anu.edu.au)
- Project opportunities/benefits for the intern:
 - Researching and delivering scientific content to a high school student audience
 - Video presenting and production

Summary:

The best way to master a topic is to teach it. This is an opportunity to learn some science communication skills and master a topic by creating videos and learning resources for high school students.

During Semester 2, 2021, meriSTEM welcomes an intern to develop educational science content to be included in meriSTEM's senior science courses. The intern will learn to conduct research into the topic, determining what students may already know, what they are required to know in various national and state curricula, and how this content relates to everyday life and current academic research. The intern will work with a mentor to plan video presentations, use equipment and software to film, edit and polish video content, and design questions to align with the learning outcomes of each video.

The intern will learn skills in researching and delivering scientific content to a high school student audience; video presenting and production; and critical evaluation and improvement cycles through reflection and feedback. The intern may also develop skills in online learning platforms and may be involved in teacher consultations and feedback.

This is an opportunity for a self-motivated student who can work independently, has an interest in communicating science, and is seeking an opportunity to develop their presentation skills. This project is an opportunity to create a distinct body of publicly shared works, aligned with formal curricula and as part of a greater resource bank.

Content topics can be tailored to the intern's interests and field of expertise. While meriSTEM welcomes inquiries and submissions from any area of science, priority areas for content development include Gravity and Motion (Physics), analytical chemistry techniques, organic chemistry and synthesis and biochemical molecules.

The current meriSTEM content offerings to students may be explored in the [meriSTEM platform](#) or on [the YouTube channel](#). A further bank of resources is made available to teachers, including planning documents, worksheets and practical activities for the classroom.