

meriSTEM

meriSTEM Science Education - Video Production and Teaching Resource Development

Internship available for Summer or Semester 1, 2023

The meriSTEM project (meristem.anu.edu.au) is an initiative of the Research School of Physics, within the College of Science at The Australian National University. 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, in the subjects of 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. meriSTEM provides opportunities for individuals to create lasting content for students across Australia.

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Internship details	
Internship Availability	Summer or Semester 1, 2023
Internship Discipline/s	Biology, Chemistry, Earth and Environmental Science
Internship Level	2 nd or 3 rd yr Undergraduate; Postgraduate Coursework
Available to International Students	Yes
Preferred Project Skills	<ul style="list-style-type: none">• Science content knowledge - chemistry, biology, EES (ideally at least 2 out of the 3)• Interest in science education and communication (ideally with some prior experience)• Ability to work independently in accordance with negotiated timeframes
Clearances Required	Working With Vulnerable People (WWVP) card preferred but not essential

Host Supervisor	Suren Mendis, Project Coordinator E: suren.mendis@anu.edu.au ; contact.meristem@anu.edu.au ; T: +61 402805942
Location	Building 38a Science Road ANU (the role may partially be undertaken remotely)
Project Opportunities/ Benefits for the Intern	<ul style="list-style-type: none"> • Professional development in science resource development skills • Professional development in science communication, video presentation and production skills • Professional learning in interpreting curriculum documents and data to plan resource needs • Professional learning in tailoring scientific content to a high school student audience • Attribution, as appropriate, for created content • Networking opportunities, as appropriate, with meriSTEM's internal and external partners

Summary:

In 2023, meriSTEM would like to welcome an internship candidate to develop educational science content to be included in meriSTEM's senior science courses. The successful applicant will work with a mentor to plan video presentations, use equipment and software to film, edit and polish video content, and design teaching resources (e.g., questions) to align with learning outcomes. The applicant will learn to conduct research on educational best practices, 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.

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 analytical chemistry instrumentation and techniques, biochemical molecules, genetics, inheritance, evolution, biological regulation and living systems, earth systems and earth processes.

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. The project also confers the opportunity to create a distinct body of publicly shared works, aligned with formal curricula and as part of a greater resource bank.

The successful applicant will learn skills in researching and delivering scientific content to a high school student audience; video presentation and production;

critical evaluation and improvement cycles through reflection and feedback; and interpretation of curriculum documents and data to inform needs. They may also develop skills in online learning platforms and may be involved in teacher consultations and feedback.

The current meriSTEM content offerings to students may be explored in the meriSTEM platform: courses.meristem.anu.edu.au or on the YouTube channel: youtube.com/c/meriSTEMEducation. A further bank of resources is made available to teachers, including planning documents, worksheets and practical activities for the classroom.