

## **meriSTEM**

### **meriSTEM Science Education: Video Production and Teaching Resource Development**

**Internship available for Winter or Semester 2, 2022**

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The meriSTEM project ([meristem.anu.edu.au](http://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](http://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.

### **Project: meriSTEM Science Education: Video Production and Teaching Resource**

#### **Internship Details:**

- Internship Availability: Winter or Semester 2, 2022
- Internship Discipline/s: Chemistry; Biology
- Internship Level: Undergraduate 2<sup>nd</sup> or 3<sup>rd</sup> year, or Postgraduate Coursework
- Available to International Students: Yes
- Preferred Project Skills:
  - Science content knowledge - chemistry or biology (ideally both)
  - 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](mailto:suren.mendis@anu.edu.au); [contact.meristem@anu.edu.au](mailto:contact.meristem@anu.edu.au); Ph: 0402 805 942)
- Location
  - Building 38a
  - Science Road, ANU
  - The role may partially be undertaken remotely
- Project opportunities/benefits for the intern:
  - Interpreting curriculum documents and data to plan resource needs
  - Tailoring scientific content to a high school student audience
  - Science communication, video presentation and production skills
  - Science resource development skills

**Summary:**

In 2022, meriSTEM would like to welcome 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 teaching resources (e.g. questions) to align with learning outcomes.

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, organic chemistry and synthesis, biochemical molecules, genetics, biological regulation and living systems.

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.

The intern will learn skills in researching and delivering scientific content to a high school student audience; video presenting and production; critical evaluation and improvement cycles through reflection and feedback, and interpretation of curriculum documents and data to inform needs. The intern 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](https://courses.meristem.anu.edu.au) or on the YouTube channel: [www.youtube.com/channel/UCTqd2vJGF5ff2oYUuc4UyCg/playlists](https://www.youtube.com/channel/UCTqd2vJGF5ff2oYUuc4UyCg/playlists). A further bank of resources is made available to teachers, including planning documents, worksheets and practical activities for the classroom.