

## Teaching Classics and STEM:

### Recruitment, Enrichment, Outreach, and Interdisciplinary Collaboration

In recent decades, STEM fields have ascended to dominance throughout all levels of education in the United States. This trend, along with our present medical and economic crises, makes the questions of how to fortify, promote, and reimagine our field more urgent than ever. This panel examines how the field of Classics can increase its engagement with STEM-oriented students, topics, and initiatives, while simultaneously reaffirming longstanding goals and methods of our field. Drawing upon their varied experiences at the college or secondary level, our panelists will present strategies for attracting and appealing to students who are oriented toward STEM majors and/or professions; pedagogical approaches to topics such as ancient science, ancient technology, and ancient medicine (including their relevance to modern STEM fields); ideas for outreach and interdisciplinary collaboration with STEM educators and professionals; and other strategies for promoting our field and demonstrating its relevance to STEM education and careers. Featuring panelists who represent a diverse range of institutions, identities, and approaches to engaging with STEM, we aim to facilitate an exchange of ideas that can be useful to classicists at any institution, and to foster a broader dialogue about the role of our discipline in the 21<sup>st</sup> century—including what we can offer in the prevailing conditions of pandemic and public health crisis.

Paper one, “Classics, STEM, and the New Humanities: Designing a Classical Curriculum for the Needs of a Science College”, argues that Classics can make meaningful contributions to STEM students’ education by embracing “New Humanities” areas (e.g. Medical Humanities or Digital Humanities). Taking as a case study a curriculum designed for a College devoted to pre-health and professional education, the author explores how courses such as “Ancient Science”

and “Ancient Medicine” contribute to a vertically aligned Medical Humanities major, General Education, and a Pharmacy professional program. The presenter will also share syllabi and specific assignments used in this curriculum.

Paper two, “From Roots to STEM: Classical Education and the Convergence of STEM in the Secondary Latin Classroom”, considers how Latin instruction can complement preparation for STEM classes and careers in the context of a teaching at a private Catholic high school. Challenging the dichotomies frequently drawn between the humanities and STEM, this presenter observes that both areas of learning incorporate elements of computational thinking, algorithmic thinking, and problem-solving. Having outlined these shared methods of processing, the presenter will suggest productive ways that Latin teachers might incorporate STEM material into their curriculum and how they might propose such ideas to administrators.

Paper three, “All STEM Leads to Rome: Teaching Roman Technology to Middle School Students of Color”, presents two full-year, elective curricula in which middle schoolers learn about the classical world by doing and making. In “Roman Technology” students read Roman texts in translation for STEM inspiration; they then use experimental archaeology to reproduce the products and processes of the ancient Romans. In “Classical Myth Makers” students explore classical myth as inspiration for maker challenges. Proceeding from an educational trend which values individuals as creators, both courses stress the empowerment of making as a resource for reaching diverse learners.

Paper four, “Etymology and Pedagogy: Using the Etymology of STEM-Based Vocabulary as a Teaching Tool”, explores how studying the roots of scientific terminology can open onto deeper inquiry into the history of science—as well as some of the obstacles to that broader goal. The presentation also examines the challenges involved with teaching such a

course without the support of a Classics program and the opportunities involved in teaching etymology to diverse learners. Approaching the terminology students use in their STEM classes as a bridge, an instructor can open the way to deeper reflection upon complex historical processes.

Paper five, “Classics and STEM at a Small Liberal Arts College: Rethinking the Senior Seminar”, outlines a course developed by the presenter to foster interdisciplinary inquiry, culminating educational experiences, and community outreach opportunities. Centered around Asklepios, the seminar studies ancient medicine and healing cults through the development of creative presentations and outreach materials that could be taken to local schools, hospitals, retirement communities, veterans’ groups, et al. While such projects may be especially suited to the environment of a small liberal arts college, the speaker will discuss how it might be adapted to teaching at various levels and settings.

Each twelve-minute presentation will be followed by 3 minutes of question and answer specific to that presentation (75 minutes). The panel presider, a specialist in ancient medicine and medical humanities, will provide opening remarks (1 minute), briefly introduce each presenter (2 minutes total), and concluding remarks (2 minutes) that synthesize recurring ideas and approaches in the presentations. The presider will then invite further questions and discussion for a period of 10 minutes, bringing the full duration of the panel to 90 minutes.