

Abstract Submitted
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Value Added: History of Physics in a "Science, Technology, and Society" General Education Undergraduate Course DWIGHT NEUENSCHWANDER, Southern Nazarene University, Bethany, OK 73008 — In thirty years of teaching a capstone Science, Technology, and Society course to undergraduate students of all majors, I have found that, upon entering STS, to most of them the Manhattan Project seems about as remote as the Civil War; few can describe the difference between nuclear and large non-nuclear weapons. With similar lack of awareness, many students seem to think the Big Bang was dreamed up by science sorcerers. One might suppose that a basic mental picture of weapons that held entire populations hostage should be part of informed citizenship. One might also suppose that questions about origins, as they are put to nature through evidence-based reasoning, should be integral to a cultures identity. Over the years I have found the history of physics to be an effective tool for bringing such subjects to life for STS students. Upon hearing some of the history behind (for example) nuclear weapons and big bang cosmology, these students can better imagine themselves called upon to help in a Manhattan Project, or see themselves sleuthing about in a forensic science like cosmology. In this talk I share sample student responses to our class discussions on nuclear weapons, and on cosmology. The history of physics is too engaging to be appreciated only by physicists.

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