The Value of Ignorance in Science Education

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Friday, April 19th, 2019 NSB 1205 (auditorium)
3:00 PM - 4:00 PM
light refreshments served at 2:45, post-talk discussion 4:00-5:00 PM

Abstract: Science education, whether for science majors in STEM areas or for those students who will not pursue professional careers in the sciences, is purveying a distorted view of science. It is based on answers taking precedence over questions and success being valued more than failure, indeed discussions of failure are almost entirely absent. The curriculum has little or no place for the scientific view of uncertainty and doubt. There are instead Heroic Narratives and Arc of Discovery chronicles to enliven the unrelenting mountain of facts. None of this bears significant resemblance to scientific practice. The dangerous result of disseminating this distorted view is a public that cannot understand scientific reasoning in making public policy and budding scientists who are not prepared for graduate and professional level work. There is little controversy over the need to alter the curriculum to better fit the reality of science and the role it plays in our culture. The critical question for educators is “What are the obstacles to changing the curriculum and its goals?”

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