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Teaching Scientific Reasoning to Liberal Arts Students LOUIS RUBBO, Coastal Carolina University — University courses in conceptual physics and astronomy typically serve as the terminal science experience for the liberal arts student. Within this population significant content knowledge gains can be achieved by utilizing research verified pedagogical methods. However, from the standpoint of the University, students are expected to complete these courses not necessarily for the content knowledge but instead for the development of scientific reasoning skills. Results from physics education studies indicate that unless scientific reasoning instruction is made explicit students do not progress in their reasoning abilities. How do we complement the successful content based pedagogical methods with instruction that explicitly focuses on the development of scientific reasoning skills? This talk will explore methodologies that actively engages the non-science students with the explicit intent of fostering their scientific reasoning abilities.

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