Developing Effective Undergraduate Research Experience

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Undergraduate research is a valuable educational tool for students pursuing a degree in physics, but these experiences can become problematic and ineffective if not handled properly. Undergraduate research should be planned as an immersive learning experience in which the student has the opportunity to develop his/her skills in accordance with their interests. Effective undergraduate research experiences are marked by clear, measurable objectives and frequent student-professor collaboration. These objectives should reflect the long and short-term goals of the individual undergraduates, with a heightened focus on developing research skills for future use. 1. Seymour, E., Hunter, A.-B., Laursen, S. L. and DeAntoni, T. (2004), “Establishing the benefits of research experiences for undergraduates in the sciences: First findings from a three-year study”. Science Education, 88: 493–534. 2. Behar-Horenstein, Linda S., Johnson, Melissa L. “Enticing Students to Enter Into Undergraduate Research: The Instrumentality of an Undergraduate Course.” Journal of College Science Teaching 39.3 (2010): 62-70.

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