

UNIVERSITY OF TEXAS AT DALLAS - DEPARTMENT OF PHYSICS

PHYSICS COLLOQUIUM

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Wednesday, April 2, 2008; 4:00-5:00 PM
Room: ECSS 2.312

SPIN-UP: How to Develop a Thriving Undergraduate Science Program

Professor Robert Hilborn

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During the 1990s the number of undergraduate physics majors in the U.S. declined steeply. In 2002, the National Task Force on Undergraduate Education carried out a detailed analysis (the SPIN-UP study) of 21 physics departments that bucked that trend and in fact had substantial increases in the number of majors. Since that time, the number of undergraduate physics majors has increased by about 30%. In this talk, I will discuss several physics departments in a variety of types of institutions that have doubled, or more than doubled, the number of majors since 2000. I will examine what those departments did and how their strategies were consistent with the findings of the SPIN-UP report. I will argue that the same strategies apply to all of the physical sciences, engineering and mathematics.

About the speaker: Dr. Robert Hilborn was chair of the National Task Force on Undergraduate Physics (2000-2006) and earlier served as the President of the American Association of Physics Teachers. In addition to his research work in nonlinear dynamics applied to biophysics and in experimental tests of the spin-statistics theorem, he currently serves as chair of the New Physics and Astronomy Faculty Workshop series (sponsored by NSF, AIP, APS, and AAPT) and as the physics representative on the Scientific Foundations of Future Physicians Committee, sponsored by the Association of American Medical Colleges and the Howard Hughes Medical Institute.