

## Science for Life - Science Education Minor

With support from the Howard Hughes Medical Institute (HHMI), the Science for Life program has a mission to strengthen and transform undergraduate science education at the University of Florida. One of the transformative elements of this program is the new Science Education Minor at UF. Participation in the Science Education minor will be a factor considered for the HHMI Undergraduate Research Award competition (see [www.honors.ufl.edu/hhmi](http://www.honors.ufl.edu/hhmi) for details).

**Overview** - The Science Education Minor consists of 18 credit hours, and students majoring in any science discipline are eligible to add the minor to their degrees. The minor will involve coursework and field experiences in local schools. The program has four interrelated foci. First, students will be challenged to build expertise in the teaching, learning and assessment of science. Second, the program will prepare students for science teaching certification in grades 6-12. Third, the program will promote science teaching as a viable and exciting profession for talented individuals. Finally, the program will introduce science education as an academic discipline with its own unique set of theoretical underpinnings, methods and standards of inquiry.

**Target Audience** - The Science Education Minor adds value to all science majors. For individuals interested in teaching, the program provides an ideal venue for professional preparation in education while building expertise in a science content area. Other students who are passionate about science but do not have obvious or well-determined post-graduate plans can use the minor as a means of exploring and preparing for career options. Science educators obviously work in schools, but they also fill vital roles in other institutions including museums, nature centers, zoos, governmental agencies, non-profit organizations, etc. For students who choose to become professional scientists and physicians, the minor will provide seminal tools for communicating the purposes, commitments, results and implications of science to broader audiences and help in graduate or professional school admission. In short, the minor program will prepare young scientists for their de facto role as science educators for their communities.

**Introductory Course** - Beginning spring 2007, a new, 3 credit course (*EDG 4930: Explorations of Science Teaching*) will be offered. This course will provide a comprehensive overview of the minor program, a survey of science education and career options, an introduction to some of teaching's most challenging issues, and opportunities to work with secondary teachers and students. "Explorations of Science Teaching" will serve as the first course in the sequence required for attaining the minor. ("Explorations" is listed as a 4000-level course, but it is appropriate undergraduates of any standing, freshmen through seniors.)

**National Need and Opportunities** - The state of Florida and the nation as a whole face a critical need for individuals well qualified in science education. The need is no more pressing than our middle and high schools: the supply of expert science teachers is dangerously low. This crisis is exacerbated in Florida, where science is already designated as a critical teacher shortage area, because of its rapidly growing population. Participants who choose to teach science in Florida public schools will be eligible for the *Critical Teacher Student Loan Forgiveness Program* (for details, see [www.floridastudentfinancialaid.org/SSFAD/pdf/CTS-LF.06-07.pdf](http://www.floridastudentfinancialaid.org/SSFAD/pdf/CTS-LF.06-07.pdf)). Current needs do not stop at the classroom. Given the influence of science and technology on modern society, communities desperately need individuals who understand science and know how to communicate that information and its implications. The Science Education Minor Program will prepare students to serve these roles.

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