

# Natural Science

## Science Research Training Program

The purpose of the Science Research Training Program is to stimulate students beyond “normal education” with hands-on practical experiences, promote real-world industrial relationships (careers), and prepare future graduate students. As faculty, students and staff, our goal is to pursue excellence (world leadership in selected research areas) and thereby stay on the cutting edge of scientific research and thought.

We encourage scholarly research and crossover interactions between various disciplines, and we promote publications in professional journals by Taylor University faculty and students. Where possible, we relate science with society and apply science and technology to various mission field needs. Research activities are carried on quietly and often on a long-range basis, but are essential to leadership and progress. During the summer months, when faculty and students can devote more time to independent research, student stipends are available for research one-on-one with a faculty member. These projects include the areas of biology, chemistry, computer science, engineering, environmental science, mathematics, and physics.

## Natural Science Courses

<b>NAS 125</b> <b>Preparing for a Career as a Health Professional</b> This course is designed to introduce beginning pre-medical students to the variety of careers available within the medical sciences. Speakers from different medical disciplines will discuss their careers, the types of opportunities available within these careers, and how to prepare for a career in their discipline. <i>This class does not meet any foundational core requirement and is not required for any major. It is recommended for freshman students taking the Pre-Medical options.</i>	<b>1 hour</b>	<b>NAS 309</b> <b>Science Education Methods</b> This is a junior-level science education methods course for biology, chemistry, and physics majors obtaining certification in secondary education. This course covers the philosophy of science, science educational psychology, the science standards (both national and state), science curriculum development, classroom management and assessment, laboratory management and development, and technology and professional development in the sciences. <i>Prerequisites: EDU 150 and EDU 260.</i>	<b>2 hours</b>
<b>NAS 170</b> <b>Selected Topics</b> A course offered on a subject of interest but not listed as a regular course offering.	<b>1-4 hours</b>	<b>NAS 325</b> <b>Medical Career Admissions Preparation</b> The purpose of this course is to prepare students for the application and interview processes you will go through in pursuing a career in the medical professions. There are four tracks to the course, each focused on a specific career: medical school, dental school, optometry, and careers that require the GRE (e.g., veterinary, physical therapy).	<b>1 hour</b>
<b>NAS 201</b> <b>Nature of Science</b> A lecture and seminar based introduction to the nature of science in three main areas: life sciences, physical sciences, and earth and space sciences. The course will examine the scientific paradigm, the nature of science, and the characteristics of good science applied in these three main areas. The course will have three laboratory projects examining the nature of science in each area. <i>Offered Fall or Spring semesters. Meets any foundational core lab science requirement.</i>	<b>3 hours</b>	<b>NAS 360</b> <b>Independent Study</b> An individualized, directed study involving a specified topic.	<b>1-4 hours</b>
<b>NAS 220</b> <b>Natural Science Research Methods</b> To introduce general science research in the fields of biology, chemistry, computer science, engineering environmental science, mathematics, and physics. An overview of selected representative research topics, problem solving approaches, instrumentation, and analysis techniques. The lab emphasizes the use of scientific instrumentation and advanced computer software tools. <i>For students enrolled in pre-college summer experience. Meets any foundational core lab science requirement.</i>	<b>4 hours</b>	<b>NAS 370</b> <b>Selected Topics</b> A course offered on a subject of interest but not listed as a regular course offering.	<b>1-4 hours</b>
<b>NAS 230</b> <b>Health Education for Behavior Change</b> This course prepares students interested in various health care careers to perform health education in community settings. Topics include disease prevention, principles of exercise and movement, nutrition, helping skills, and behavior change theories. After successful completion of course, students are able to work in the Invitation Diabetes Prevention Program.	<b>2 hours</b>	<b>NAS 393</b> <b>Practicum</b> Supervised learning involving a first-hand field experience or a project. Generally, one hour of credit is awarded for a minimum of 40 hours of practicum experience. <i>Offered primarily during Summer.</i>	<b>1-4 hours</b>
<b>NAS 270</b> <b>Selected Topics</b> A course offered on a subject of interest but not listed as a regular course offering.	<b>1-4 hours</b>	<b>NAS 450</b> <b>Directed Research</b> Investigative learning involving closely directed research and the use of such facilities as the library or laboratory.	<b>1-4 hours</b>
		<b>NAS 480</b> <b>Seminar</b> A limited-enrollment course designed especially for upper-class majors with emphasis on directed readings and discussion. <i>Seminar focuses on the integration of topics from contemporary science with an emphasis on recent research reports of interdisciplinary interest. Guest lecturers, faculty, and student reports serve as the method of instruction. Offered Fall semester.</i>	<b>1 hour</b>
		<b>NAS 490</b> <b>Honors</b> Individualized study or research of an advanced topic within a student's major. <i>Open to students with at least a 3.00 GPA in the major field.</i>	<b>1-2 hours</b>