

Majoring in

Science

Description of the Science Program

What is the science major?

The science major is a multidisciplinary study of science that provides a broad and fundamental grounding in the physical, life, earth, and mathematical sciences.

What do science majors study?

B.S. in science majors learn the foundation in major scientific disciplines. They take introductory courses and labs in biology, chemistry, physics, geology, math, and statistics. In addition, they study one science discipline in greater depth through completing a concentration in a specific science area.

What skills are important for a science major?

Science majors should be able to:

- Analyze and interpret scientific data;
- Conduct and explain scientific research;
- Relate various branches of science to each other and to society;
- Show skills in operating scientific equipment; and
- Demonstrate proficiency in math.

What else do science majors study?

The science major is considered a liberal arts major with a variety of courses to develop knowledge and skills that can be applied in both personal and professional settings.

Liberal arts courses provide a background to strengthen critical thinking; problem solving; written, oral, and interpersonal communication; quantitative, analytical, and reasoning skills. These skills are also considered very important for success in the workplace.

Course Requirements

General education: About 45 credit hours of general education courses are required. These courses give a broad range of knowledge in writing, arts, ethics, civilization, human behavior, literature, foreign language, and urban environment.

Core major courses: A minimum of 32-35 credit hours of introductory science and math courses are required. Science majors may take courses such as:

- Calculus
- Experiencing science
- General chemistry
- Introduction to biological science
- Introductory physics
- Investigatory math and science
- Precalculus
- Statistics

Concentration: About 30-35 credit hours are required in one of the following concentration areas: biology, chemistry, math, general science, or physics. Sample courses in the concentration area include:

- Classical mechanics
- Ecology
- Genetics
- Investigations in geometry
- Meteorology and climatology
- Oceanography

- Organic chemistry
- Physical geology
- Quantitative analysis
- Using technology to teach math

Electives: About 10 credit hours of elective courses are required in this major.

Careers for Science Majors

The science major is popular for individuals interested in teaching careers in elementary and middle schools. However, there are many other entry-level areas of employment entered by science majors with appropriate experience and education, including the following:

- Administrative assistant
- Environmental analyst
- Environmental educator
- Management trainee
- Occupational safety specialist
- Outdoor trip leader
- Pharmacy technician
- Quality control technician
- Research laboratory assistant
- Scientific sales representative
- Scientific writer
- State parks and recreation worker
- Technology manager
- Wood and forest products manufacturing

Jobs that require additional education or experience for student majoring in science include:

- Chiropractor
- College professor
- College student personnel worker
- Hospital administrator

- Lawyer
- Nurse practitioner
- Pharmacist
- Physician's assistant
- Podiatrist
- Public health official

Next Steps

If you are interested in learning more about becoming a science major at VCU, consider doing each of the following things. Check them off as you complete each step.

- Check out the VCU academic programs website at www.has.vcu.edu
- Take an introductory biology, chemistry, or physics course.
- Read about the science major in the *Undergraduate Bulletin*.
- Review the science major graduation worksheet with an academic advisor.
- Talk to one or more upper-level science students about their major.
- Discuss the major with the coordinator of the science major.
- Go to the Career Center to read about careers in science.

- Go to the VCU bookstore and browse in the biology, chemistry, physics, math, and geography textbook section.
- Explore internship possibilities through the Career Center.
- Read specific information about careers in the Occupational Outlook Handbook located at www.bls.gov/oco.

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B.S. in Science Program

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