



## Biology

### About this Major

The Biology major is designed to give you a broad preparation and experience for a variety of biology-related fields. VCSU'S program emphasizes preparing students for professional schools and graduate work. Opportunities exist on and off campus to provide sound practical experiences, including work as student assistants, research experiences in our research labs, participation in the campus-tutoring programs, field studies, and biological travel tours.

Internships at numerous facilities (such as Northern Prairie Research Center, Mercy Hospital, and the Fish Hatchery) are available to you to develop and apply your skills. Classes involve field study in local areas such as the Valley City National Fish Hatchery, Lake Ashtabula, and the Sheyenne River Valley. VCSU has well-equipped research labs and you are encouraged to be involved in research. This program has hands-on opportunities that are usually reserved for graduate students. You have the chance to run the planetarium, conduct research, and gather samples. Students travel to regional and national scientific meetings to present on their current research. All faculty members in the program have earned their Ph.D. Several have research grants and research labs which they run with the assistance of VCSU students.

### Meet a Student



*VCSU's science department is amazing. I feel blessed to have all these fantastic teachers who come with real world experience under their belts. When I ask them a question, they are always so knowledgeable and willing to help you out. Alongside the awesome faculty, the classes take you out on outdoor experiences that help you further not only your knowledge but the experience that employers are looking for." —Michaela Halvorson, Milnor, N.D.*

### Jobs with a Biology Degree

**7,209**

regional job listings last year

**92%**

of jobs in this field are available  
to bachelor's degree holders

A Biology degree from VCSU comes with a wealth of potential – there are countless career paths to follow that build off of the solid educational foundation you earned. Some career options include:

- Laboratory Technologist or Laboratory Manager
- Research Associate
- Biologist
- Biological Technician
- Medical Scientist
- Clinical Research Manager
- Natural Science Research Manager

### Practical Experience

The Rhoades Science Center includes a greenhouse for work in biology and botany, a planetarium, and laboratories for terrestrial biology, aquatic biology, chemistry, earth science, and physics. In addition, students have access to:

- Fully equipped Aquatic Macroinvertebrate Laboratory and Biomedical Research Laboratory
- Weather stations
- River gauge station
- Fish hatchery as well as the dam and reservoir at Lake Ashtabula



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- The Soil Conservation Service
- Biology faculty have ongoing connections with North Dakota Department of Health, N.D. Parks and Recreation, Northern Prairie Wildlife Research Center, and the US Army Corps of engineers and with faculty involved in graduate programs at UND and NDSU

## Get Involved in your Major



You are invited to join the VCSU Pre-Professional Club. The club is for students interested in continuing their education in graduate school or professional programs such as medical school, physical therapy, chiropractic, optometry, and dentistry. This club provides support for students going through the application process and opportunities to practice aptitude tests such as the GRE, mCAT, LSAT, and DAT. There is also a Fisheries and Wildlife Conservation club which organizes trips and fundraisers. VCSU also has activities such as choir, band, and intramural athletics.

## Contact Information

### Department Chair

Dr. Nicholas Galt, [nicholas.galt@vcsu.edu](mailto:nicholas.galt@vcsu.edu), (701) 845-7459

### Faculty Contact

Trista Montgomery, [trista.montgomery@vcsu.edu](mailto:trista.montgomery@vcsu.edu), (701) 845-7451

### Campus Location

Rhoades Science Center 203

### Schedule your visit today!

<http://visit.vcsu.edu/> or call (701) 845-7101 or (800) 532-8641



**Learn more  
about studying  
Biology at  
Valley City State  
University**

## Plan of Study

### First Year

Fall	Credits	Spring	Credits
BIOL 150	4	BIOL 151	4
CHEM 121 (Gen Ed)	5	CHEM 116 (Gen Ed)	4
CIS 170 (Gen Ed)	3	COMM 110 (Gen Ed)	3
ENGL 110 (Gen Ed)	3	ENGL 125 (Gen Ed)	3
UNIV 150	1		
	<b>16</b>		<b>14</b>

### Second Year

Fall	Credits	Spring	Credits
Art & Music (Gen Ed)	3	BIOL 170	4
HPER 100 (Gen Ed)	2	BIOL 315	4
MATH 107 (Gen Ed)	4	BIOL 311	4
Minor course	4	Literacies (Gen Ed)	3
Elective	3		
	<b>16</b>		<b>15</b>

### Third Year

Fall	Credits	Spring	Credits
Additional Humanities or Social Science (Gen Ed)	2	BIOL 310 or 441	4
Biology Directed Elective	4	Elective	4
Elective	2	Minor Course	4
Minor course	4	Social Science (Gen Ed)	3
Social Science (Gen Ed)	3		
	<b>15</b>		<b>15</b>

### Fourth Year

Fall	Credits	Spring	Credits
Biology directed elective	4	Biology directed elective	4
BIOL 410 or 470	4	Elective	3
BIOL 491	2	Minor course	4
Minor course	4	Minor course	4
	<b>14</b>		<b>15</b>

**Total Credits 120**

Please note: This plan is intended for general information only. Students are strongly encouraged to meet with their academic advisor each semester before registration.



## Learning Outcomes

On completion of the Biology Program the students should be able to:

1. Demonstrate a fundamental knowledge of the major concepts in biology.
2. Exhibit critical thinking skills by applying the scientific method to solve problems.
3. Exhibit the ability to read and communicate in a scientific style.
4. Analyze the consequences of activities on themselves and their environment.