

# 2018-2019 Example of Catalog Layout – Undergraduate

Note: Your program may not use all of the headings in this example. If a heading does not apply to your program, please disregard.

## PROGRAM TITLE

Title of program and program description. Follow with intro paragraph, mission or vision, etc.

### Biology

The study of animals and plants has fascinated people for thousands of years. All of us have wondered at some time about how our bodies are put together and how they function, why plants flower, how organisms interact with each other and respond to the environment, or why some bacteria cause disease and others do not. Biology is an exciting and dynamic field filled with the satisfaction of answers to many questions and the challenge of others waiting to be explained.

As a science, biology offers the opportunity to study and experiment with animals, plants, fungi, and bacteria in the laboratory and outdoors. Biologists make contributions in widely varying areas, including medicine, crop development, biotechnology, wildlife management, environmental preservation, and systematics.

Degrees offered: Master of Science, biology concentration in Masters of Education, Bachelor of Science, Bachelor of Arts in biology, Bachelor of Science in behavioral neuroscience, major and minor for secondary teaching certification. (GVSU catalog, 2017-2018)

## WEBSITE

Department website.

[www.gvsu.edu/biology](http://www.gvsu.edu/biology)

## ACCREDITATION

List program accreditation if applicable.

### Accreditation

The Chemistry Department is approved by the Committee on Professional Training of the American Chemical Society and offers ACS certified degrees in chemistry and biochemistry to qualified graduates. (GVSU catalog, 2017-2018)

## PARTICIPATING PROGRAMS

Any programs the department participates in, cooperates in with other departments, etc. List these as their own headings with brief description of each.

### Participating Programs

#### Cell and Molecular Biology ([www.gvsu.edu/cmb](http://www.gvsu.edu/cmb))

Students who wish to prepare for careers in biotechnology, biomedicine, cell biology, forensics, genetics, molecular biology, pharmacology, or related fields may wish to consider the genetics, cell and molecular emphasis of the Bachelor of Science in Biology or the interdisciplinary degree, cell and molecular biology (cmb) described elsewhere in the Grand Valley State University Undergraduate and Graduate Catalog. Both programs offer independent research directed by mentors from Grand Valley or area business and research institutes, ensuring that students will get practical experience conducting original research in an area of their interest.

**Integrated Science Major for the B.S. Degree ([www.gvsu.edu/isci](http://www.gvsu.edu/isci))**

The integrated science major is designed for students seeking certification to teach at the elementary school level. It provides the student with broad exposure in all the sciences and emphasizes the connections among the scientific disciplines, their relationship with technology, and their relevance to society. In order to be certified students must complete this major and the elementary teaching minor with at least a 2.7 GPA in each. Students are advised to take the MDE subject test after they have completed the major with a 2.7 GPA.

**Integrated Science Secondary Endorsement ([www.gvsu.edu/isci/index.cfm](http://www.gvsu.edu/isci/index.cfm))**

Students who have declared or completed a major and minor in a science discipline may complete additional courses for an integrated science secondary endorsement. The Michigan Department of Education will allow teachers with the integrated science secondary endorsement to teach biology, chemistry, earth science and physics at the secondary level.

**Behavioral Neuroscience Major ([www.gvsu.edu/psychology/index.cfm](http://www.gvsu.edu/psychology/index.cfm))**

Students interested in this interdisciplinary major should consult the psychology department for specific requirements. (GVSU catalog, 2017-2018)

## HONORS ORGANIZATIONS

List any honors organization that is supervised by the department (not college).

### Honors Organizations

Beta Beta Beta (TriBeta) is an honor society for students, particularly undergraduates, dedicated to improving the understanding and appreciation of biological study and extending boundaries of human knowledge through scientific research. Requirements: undergraduates shall have completed at least one term of the second year of a four-year curriculum, completed at least three courses in biological science, of which at least one is not an introductory course, with an average grade of B or its equivalent in those biology courses, and shall be in good academic standing. (GVSU catalog, 2017-2018)

## REQUIREMENTS FOR A MAJOR (Number of Hours)

List degree requirements in the following order using these headings:  
\* Degree Requirements (indicate B.A, B.S, etc...)

Core Courses

Major Course Requirements

Electives

### Requirements for a Major in Exercise Science

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Students in the exercise science program at Grand Valley State University must follow all general education requirements as defined in the Grand Valley State University Undergraduate and Graduate Catalog.

### Exercise Science Major B.S. Course Requirements

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- [BMS 202 - Anatomy and Physiology](#) Credits: 4 OR  
[BMS 208 - Human Anatomy](#) Credits: 3
- [MOV 304 - Introduction to Exercise Physiology](#) Credits: 3
- [STA 215 - Introductory Applied Statistics](#) Credits: 3

### Exercise Science Major Courses (Credits: 36 to 42)

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- [BMS 105 - Basic Nutrition](#) Credits: 3
- [MOV 101 - Foundations of Human Movement Science](#) Credits: 3

- [MOV 102 - First Aid, CPR and AED](#) Credits: 2
- [MOV 217 - Modern Principles of Athletic Training](#) Credits: 2
- [MOV 218 - Modern Principles of Athletic Training Lab](#) Credits: 1
- [MOV 300 - Kinesiology](#) Credits: 3
- [MOV 309 - Measurement and Evaluation](#) Credits: 2
- [MOV 320 - Exercise Testing and Prescription](#) Credits: 3
- [MOV 321 - Exercise Testing Lab](#) Credits: 1
- [MOV 420 - Laboratory Practicum in Exercise Science](#) Credits: 2
- [MOV 470 - Exercise for Special Populations](#) Credits: 3
- [MOV 475 - Fieldwork in Exercise Science](#) Credits: 2
- [MOV 490 - Internship in Exercise Science](#) Credits: 6 to 12
- [MOV 495 - Professionalism in Exercise Science](#) Credits: 3 (SWS)

(GVSU catalog, 2017-2018)

## EMPHASIS/CONCENTRATION AREAS (Number of Hours)

List emphasis areas and their requirements if applicable (use same order as major requirements).\*

### Clinical Exercise Science (28 credits)

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- [BMS 290 - Human Physiology](#) Credits: 3
- [BMS 291 - Laboratory in Human Physiology](#) Credits: 1
- [BMS 306 - Advanced Human Nutrition](#) Credits: 3
- [BMS 415 - Nutrition and Physical Performance](#) Credits: 3
- [CHM 231 - Introductory Organic Chemistry](#) Credits: 4
- [CHM 232 - Biological Chemistry](#) Credits: 4
- [MOV 365 - Clinical Exercise Physiology](#) Credits: 3
- [PHY 200 - Physics for the Life Sciences](#) Credits: 4
- [PSY 310 - Behavior Modification](#) Credits: 3

(GVSU catalog, 2017-2018)

## SUGGESTED ORDER OF COURSEWORK FOR A MAJOR/EMPHASIS

Insert suggested order of coursework:

First Year

Second

Year Third

Year Fourth

Year Etc.

### Suggested Order of Coursework for Clinical Exercise Science

#### Year 1:

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- [BIO 120 - General Biology I](#) Credits: 4
- [CHM 109 - Introductory Chemistry](#) Credits: 4

- [MTH 110 - Algebra](#) Credits: 4
- [MOV 101 - Foundations of Human Movement Science](#) Credits: 3
- [BMS 208 - Human Anatomy](#) Credits: 3
- [CHM 231 - Introductory Organic Chemistry](#) Credits: 4
- [WRT 150 - Strategies in Writing](#) Credits: 4

## Year 2:

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- [CHM 232 - Biological Chemistry](#) Credits: 4
- [BMS 290 - Human Physiology](#) Credits: 3
- [BMS 291 - Laboratory in Human Physiology](#) Credits: 1
- [PSY 101 - Introductory Psychology](#) Credits: 3
- [MOV 217 - Modern Principles of Athletic Training](#) Credits: 2
- [MOV 218 - Modern Principles of Athletic Training Lab](#) Credits: 1
- [BMS 105 - Basic Nutrition](#) Credits: 3
- [PHY 200 - Physics for the Life Sciences](#) Credits: 4
- [MOV 304 - Introduction to Exercise Physiology](#) Credits: 3
- [STA 215 - Introductory Applied Statistics](#) Credits: 3

## Year 3:

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- [MOV 309 - Measurement and Evaluation](#) Credits: 2
- [MOV 300 - Kinesiology](#) Credits: 3
- [MOV 320 - Exercise Testing and Prescription](#) Credits: 3
- [MOV 321 - Exercise Testing Lab](#) Credits: 1
- [MOV 365 - Clinical Exercise Physiology](#) Credits: 3
- [MOV 102 - First Aid, CPR and AED](#) Credits: 2
- [BMS 415 - Nutrition and Physical Performance](#) Credits: 3
- [MOV 420 - Laboratory Practicum in Exercise Science](#) Credits: 2
- [PSY 310 - Behavior Modification](#) Credits: 3

## Year 4:

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- [BMS 306 - Advanced Human Nutrition](#) Credits: 3
- [MOV 470 - Exercise for Special Populations](#) Credits: 3
- [MOV 475 - Fieldwork in Exercise Science](#) Credits: 2
- [MOV 495 - Professionalism in Exercise Science](#) Credits: 3
- [MOV 490 - Internship in Exercise Science](#) Credits: 6 to 12

# REQUIREMENTS FOR A MINOR (insert name of minor) (number of hours)

List minor requirements.\*

## Requirements for a Minor in Earth Science

An earth science minor for teacher certification requires a minimum overall GPA of 2.7 in the minor and a minimum of 21 credits, including the following courses (substitutions must be approved by the geology department chair):

- [GEO 111 - Exploring the Earth](#) Credits: 4
- [GEO 112 - Earth History](#) Credits: 4
- [GEO 203 - Weather and Climate for Pre-Service Teachers](#) Credits: 3
- [GEO 220 - Earth Surface Materials and Systems](#) Credits: 4
- [GEO 319 - Earth Science in Secondary Education](#) Credits: 4
- [PHY 105 - Descriptive Astronomy](#) Credits: 3

(GVSU Catalog, 2017-2018)

# PREPROFESSIONAL PREPARATION

List header and courses if applicable.

# REQUIREMENTS FOR A CERTIFICATE

List certificate requirements.\*

## Requirements for a Certificate in Green Chemistry

Students must earn a bachelor's degree to earn this certificate. Students who seek a certificate in green chemistry are required to complete 12 to 13 credits from the courses below:

- [CHM 421 - Green Chemistry For Sustainable Environment](#) Credits: 3
- [CHM 442 - Synthetic Polymers: Life Cycle and Emerging Sustainable Technologies](#) Credits: 3
- \* [CHM 399 - Readings in Chemistry](#) Credits: 1 or 2  
OR [CHM 490 - Chemistry Laboratory Internship](#) Credits: 1 to 4  
OR [CHM 499 - Investigation Problems](#) Credits: 1 to 5

AND one of the following courses:

- [CHM 427 - Green and Environmental Chemistry Laboratory](#) Credits: 3
- [ECO 345 - Environmental and Resource Economics](#) Credits: 3
- [GEO 300 - Geology and the Environment](#) Credits: 3
- [GEO 445 - Introduction to Geochemistry](#) Credits: 3
- [GPY 412 - Global Environmental Change](#) Credits: 3
- [NRM 330 - Environmental Pollution](#) Credits: 3
- [NRM 451 - Natural Resource Policy](#) Credits: 3

\* CHM 399 - Readings in Chemistry, CHM 490 - Chemistry Laboratory Internship, and CHM 499 - Investigation Problems are variable credit independent study courses. Any combination of independent projects approved by the advisor adding up to three credits satisfies this requirement.

(GVSU catalog, 2017-2018)