

# Accelerated Graduate Program in Biology (BS) and Physical Therapy (DPT)

This is a special accelerated graduate program which enables a student to receive both a Bachelor of Science degree (biology major) and a Doctor of Physical Therapy degree from UW-La Crosse. Students typically complete the undergraduate requirements in three years followed by 34 months of attendance in the physical therapy graduate program. The undergraduate requirements include completion of the Core General Education Requirements, college core requirements (with the exception of a minor), physical therapy pre-requisite course work, and all of the requirements for the biology major except six credits of biology elective courses.

UW-La Crosse students will be selected for entrance into the graduate program in physical therapy through a competitive application process. Participation in the undergraduate Biology/PT accelerated graduate program does not guarantee admission to the graduate program in physical therapy.

## Major requirements

(All colleges, excluding teacher certification programs)

33 credits (52 total credits including CHM and MTH requirements)

**Each student must have a minimum of three 400 level BIO credits (excluding BIO 450, 479, 489, 491, 495, and 499) to fulfill requirements of the major.**

| Code                                                  | Title                                        | Credits    |
|-------------------------------------------------------|----------------------------------------------|------------|
| BIO 105                                               | General Biology                              | 4          |
| BIO 203                                               | Organismal Biology                           | 4          |
| BIO 306                                               | Genetics                                     | 4          |
| BIO 307                                               | Ecology                                      | 3          |
| BIO 315                                               | Cell Biology                                 | 4          |
| BIO 491                                               | Capstone Seminar in Biology                  | 1          |
| <b>Select one upper level (300/400) lab component</b> |                                              | <b>1-4</b> |
| BIO 302                                               | Introductory Plant Identification            |            |
| BIO 303                                               | Vertebrate Form and Function <sup>1</sup>    |            |
| BIO 312                                               | Human Anatomy and Physiology I <sup>1</sup>  |            |
| BIO 313                                               | Human Anatomy and Physiology II <sup>1</sup> |            |
| BIO 321                                               | Ornithology                                  |            |
| BIO 333                                               | Radiation Biology                            |            |
| BIO 341                                               | Limnology                                    |            |
| BIO 404                                               | Plant Systematics and Evolution              |            |
| BIO 405                                               | Aquatic and Wetland Vascular Plants          |            |
| BIO 406                                               | Parasitology                                 |            |
| BIO 408                                               | Developmental Biology                        |            |
| BIO 410                                               | Human Cadaver Dissection                     |            |
| BIO 412                                               | Mycology                                     |            |
| BIO 413                                               | Medical Mycology                             |            |
| BIO 414                                               | Freshwater Invertebrate Zoology              |            |
| BIO 419                                               | Quantitative Methods in Ecology              |            |
| BIO 422                                               | Ichthyology                                  |            |

|                                                                           |                                                             |              |
|---------------------------------------------------------------------------|-------------------------------------------------------------|--------------|
| BIO 436                                                                   | Molecular Biology Laboratory                                |              |
| BIO 439                                                                   | Plant Anatomy                                               |              |
| BIO/MIC 440                                                               | Bioinformatics                                              |              |
| BIO/MIC 442                                                               | Plant Microbe Interactions                                  |              |
| BIO 447                                                                   | Standard Methods/Quality Assurance Water Analyses           |              |
| BIO 456                                                                   | Plant Ecology                                               |              |
| BIO 467                                                                   | Neurobiology Laboratory Techniques                          |              |
| BIO 468                                                                   | Human Molecular Genetics Lab                                |              |
| MIC 421                                                                   | Virology Laboratory                                         |              |
| <b>Select 10-12 credits of electives from the following: <sup>2</sup></b> |                                                             | <b>10-12</b> |
| BIO 202                                                                   | Introduction to Biological Data Analysis and Interpretation |              |
| BIO 210                                                                   | Animal Biology                                              |              |
| BIO 302                                                                   | Introductory Plant Identification                           |              |
| BIO 303                                                                   | Vertebrate Form and Function <sup>1</sup>                   |              |
| BIO 312                                                                   | Human Anatomy and Physiology I <sup>1</sup>                 |              |
| BIO 313                                                                   | Human Anatomy and Physiology II <sup>1</sup>                |              |
| BIO 321                                                                   | Ornithology                                                 |              |
| BIO 330                                                                   | Economic Botany                                             |              |
| BIO 333                                                                   | Radiation Biology                                           |              |
| BIO 337                                                                   | Plant Physiology                                            |              |
| BIO 341                                                                   | Limnology                                                   |              |
| BIO 404                                                                   | Plant Systematics and Evolution                             |              |
| BIO 405                                                                   | Aquatic and Wetland Vascular Plants                         |              |
| BIO 406                                                                   | Parasitology                                                |              |
| BIO 408                                                                   | Developmental Biology                                       |              |
| BIO 410                                                                   | Human Cadaver Dissection                                    |              |
| BIO 412                                                                   | Mycology                                                    |              |
| BIO 413                                                                   | Medical Mycology                                            |              |
| BIO 414                                                                   | Freshwater Invertebrate Zoology                             |              |
| BIO 419                                                                   | Quantitative Methods in Ecology                             |              |
| BIO 422                                                                   | Ichthyology                                                 |              |
| BIO 424                                                                   | Human Endocrinology                                         |              |
| BIO 428                                                                   | Advanced Nutrition for the Health Professions               |              |
| BIO 429                                                                   | Evolution                                                   |              |
| BIO 432                                                                   | Biology of Cancer                                           |              |
| BIO 435                                                                   | Molecular Biology                                           |              |
| BIO 436                                                                   | Molecular Biology Laboratory                                |              |
| BIO 437                                                                   | Plant Growth and Development                                |              |
| BIO 439                                                                   | Plant Anatomy                                               |              |
| BIO 440                                                                   | Bioinformatics                                              |              |
| BIO 441                                                                   | Aquatic Toxicology                                          |              |
| BIO 442                                                                   | Plant Microbe Interactions                                  |              |
| BIO 443                                                                   | Molecular Mechanism of Disease and Drug Action              |              |
| BIO 447                                                                   | Standard Methods/Quality Assurance Water Analyses           |              |
| BIO 449                                                                   | Advanced Microscopy and Biological Imaging                  |              |
| BIO 456                                                                   | Plant Ecology                                               |              |
| BIO 458                                                                   | Comparative Animal Physiology                               |              |
| BIO 464                                                                   | Stream and Watershed Ecology                                |              |
| BIO 465                                                                   | Neurophysiology                                             |              |
| BIO 466                                                                   | Human Molecular Genetics                                    |              |
| BIO 467                                                                   | Neurobiology Laboratory Techniques                          |              |
| BIO 468                                                                   | Human Molecular Genetics Lab                                |              |

|                                                        |                                              |
|--------------------------------------------------------|----------------------------------------------|
| BIO 473                                                | Marine Biology                               |
| BIO 476                                                | Ecosystem Ecology                            |
| MIC 230                                                | Fundamentals of Microbiology                 |
| MIC 310                                                | Immunology                                   |
| MIC 350                                                | Bacterial Diversity                          |
| MIC 380                                                | Food Microbiology                            |
| MIC 410                                                | Immunology Laboratory                        |
| MIC 420                                                | Introductory Virology                        |
| MIC 421                                                | Virology Laboratory                          |
| MIC 427                                                | Industrial and Fermentation Microbiology     |
| MIC 434                                                | Aquatic Microbial Ecology                    |
| <b>Select three semesters of chemistry, including:</b> |                                              |
| CHM 103                                                | General Chemistry I                          |
| CHM 104                                                | General Chemistry II                         |
| And one of the following organic chemistry options:    |                                              |
| Option A (5 credits) <sup>3</sup>                      |                                              |
| CHM 300                                                | Fundamental Organic Chemistry                |
| & CHM 302                                              | and Fundamental Organic Chemistry Laboratory |
| Option B (7 credits)                                   |                                              |
| CHM 303                                                | Organic Chemistry Theory I                   |
| & CHM 304                                              | and Organic Chemistry Theory II              |
| & CHM 302                                              | and Fundamental Organic Chemistry Laboratory |
| Option C (8 credits)                                   |                                              |
| CHM 303                                                | Organic Chemistry Theory I                   |
| & CHM 304                                              | and Organic Chemistry Theory II              |
| & CHM 305                                              | and Organic Chemistry Laboratory             |
| <b>Math requirement</b>                                |                                              |
| STAT 145                                               | Elementary Statistics                        |
| <b>Total Credits</b>                                   |                                              |
| <b>52-55</b>                                           |                                              |

<sup>1</sup> A maximum of eight credits of BIO 303, BIO 312, BIO 313 can be applied to the major.

<sup>2</sup> Up to two credits of BIO 499 may be used as electives.

<sup>3</sup> This is the recommended option for most biology majors, but students should consult with their biology advisor before enrolling.

In addition, students must complete the physical therapy prerequisite course work (<https://catalog.uwlax.edu/graduate/programrequirements/physicaltherapy/dpt/#programrequirements>).

## Degree requirements

All students must complete the general education, college core, major/minor, and university degree requirements to qualify for a degree. All enrolled students have access to a degree audit to track all of these requirements.

- Core general education requirements (<https://catalog.uwlax.edu/undergraduate/generaleducation/>)
- College core for B.S. (no minor required) (p. 2)
- Baccalaureate degree requirements (p. 3)
- Doctor of Physical Therapy requirements (<https://catalog.uwlax.edu/graduate/programrequirements/physicaltherapy/dpt/>)

## College of Science and Health (CSH) Bachelor of Science core requirements

B.S. students graduating from the College of Science & Health are required to take:

1. Two MTH/STAT courses or one MTH/STAT course and one CS course

| Code     | Title                                                                   | Credits |
|----------|-------------------------------------------------------------------------|---------|
| CS 101   | Introduction to Computing <sup>1</sup>                                  |         |
| CS 115   | Introduction to Python Programming <sup>1</sup>                         |         |
| CS 120   | Software Design I <sup>1</sup>                                          |         |
| CT 100   | Introduction to Computational Thinking <sup>1</sup>                     |         |
| MTH 115  | Mathematics for Early Childhood and Elementary Teachers I <sup>1</sup>  |         |
| MTH 116  | Mathematics for Early Childhood and Elementary Teachers II <sup>1</sup> |         |
| MTH 123  | Mathematics for Decision Making <sup>1</sup>                            |         |
| MTH 150  | College Algebra <sup>1</sup>                                            |         |
| MTH 151  | Precalculus <sup>1</sup>                                                |         |
| MTH 160  | Mathematics for Business <sup>1</sup>                                   |         |
| MTH 175  | Applied Calculus <sup>1</sup>                                           |         |
| MTH 207  | Calculus I <sup>1</sup>                                                 |         |
| MTH 208  | Calculus II <sup>1</sup>                                                |         |
| MTH 215  | Mathematics for Middle School Teachers I <sup>1</sup>                   |         |
| MTH 216  | Mathematics for Middle School Teachers II <sup>1</sup>                  |         |
| MTH 265  | Mathematical Models in Biology <sup>1</sup>                             |         |
| STAT 145 | Elementary Statistics <sup>1</sup>                                      |         |

<sup>1</sup> Course may also satisfy a Core General Education Requirement.

2. Two laboratory science courses, one of the two courses must be from a department outside of the student's major department:

| Code    | Title                                                         | Credits |
|---------|---------------------------------------------------------------|---------|
| ANT 102 | Introduction to Biological Anthropology <sup>1</sup>          |         |
| BIO 100 | Biology for the Informed Citizen <sup>1</sup>                 |         |
| BIO 105 | General Biology <sup>1</sup>                                  |         |
| BIO 203 | Organismal Biology                                            |         |
| BIO 210 | Animal Biology                                                |         |
| BIO 304 | Plant Biology                                                 |         |
| CHM 103 | General Chemistry I <sup>1</sup>                              |         |
| CHM 104 | General Chemistry II                                          |         |
| ESS 205 | Human Anatomy and Physiology for Exercise and Sport Science I |         |
| GEO 101 | Earth Environments <sup>1</sup>                               |         |
| GEO 221 | Weather and Climate                                           |         |
| GEO 222 | Earth Surface Processes and Landforms                         |         |
| MIC 100 | Microbes and Society <sup>1</sup>                             |         |
| PHY 103 | Fundamental Physics I <sup>1</sup>                            |         |
| PHY 104 | Fundamental Physics II                                        |         |
| PHY 106 | Physical Science for Educators <sup>1</sup>                   |         |
| PHY 155 | Solar System Astronomy <sup>1</sup>                           |         |
| PHY 160 | Stars, Galaxies and the Universe <sup>1</sup>                 |         |

|         |                                |
|---------|--------------------------------|
| PHY 203 | General Physics I <sup>1</sup> |
| PHY 204 | General Physics II             |

**Notes:** Mathematics courses can be pairs, i.e. MTH 150 and MTH 151.

3. In addition to all other College of Science and Health core requirements, students from non-exempted programs<sup>2</sup> must complete one of the following options. It is recommended that courses are selected in consultation with students' academic advisor.
  - a. Complete a second major; or
  - b. Complete a minor outside the major; or
  - c. Complete two certificates outside the major with at least 12 combined credits at the 300/400 level; or
  - d. Complete an individualized option, consisting of 18 credits
    - i. At least 12 credits must be earned at the 300/400 level outside the major department.
    - ii. The remaining six credits should come from
      - a. 100 level or higher courses outside the major (all courses used to meet these requirements must be in addition to the minimum credits required in the Core General Education Requirements); or
      - b. 300/400 level courses inside major not being used to fulfill major requirements.
    - iii. Internship credits may not count toward the individualized option.

<sup>2</sup> The list of exempted CSH programs is on the CSH catalog page (<https://catalog.uwlax.edu/undergraduate/scienceandhealth/#exemptions>).

<sup>1</sup> Grade point average requirements for some programs will be considerably higher than 2.00. Re-entering students may be required to earn credits in excess of the 120 needed for graduation in any curriculum to replace credits earned in courses in which the content has changed substantially in recent years. Each case will be judged on its own merit.

<sup>2</sup> The grade point average recorded at the time the degree is awarded will not be affected by future enrollment.

**No degree will be awarded unless all requirements are fulfilled and recorded within 30 days after the official ending date of each term.**

## Baccalaureate degree requirements

Candidates for the Bachelor of Arts or the Bachelor of Science degrees must accomplish the following:

1. Fulfill the Core General Education Requirements (CGER) (<https://catalog.uwlax.edu/undergraduate/generaleducation/#generaleducationrequirements>).
2. Complete the courses prescribed by the Undergraduate Curriculum Committee for the degree desired in the respective school or college.
3. Earn a minimum of 120 semester credits with at least a 2.00 cumulative GPA.<sup>1, 2</sup>
4. At least 40 credits must be earned in 300/400 level courses. Transfer courses earned or transferred at the 300/400 level apply to this requirement.
5. Complete major and minor requirements with at least a 2.00 GPA<sup>1, 2</sup> in each major and minor (and concentration or emphasis, if selected).
6. A minimum of 30 semester credits in residence at UWL is required for graduation. (See undergraduate resident requirement (<https://catalog.uwlax.edu/undergraduate/academicpolicies/graduation/#undergraduate-residence-requirement>)).
7. Submit an application for graduation via the "Submit Intent to Graduate" link in the WINGS Student Center as soon as the student has registered for his or her final semester or summer term in residence. December and winter intersession graduates should apply by May 1. May and summer graduates should apply by December 1.