



Student ID: _____
 Student Name: _____
 Advisor Name: _____

Catalog: 2020-2021 Undergraduate Catalog
 Program: Biology, B.S.

Biology, B.S.

Requirements For: B.S. Major – 71-82 hours, 2.0 GPA

The Bachelor of Science in Biology degree is designed to prepare students for post-graduate study including research based graduate study or professional training in medicine, dentistry, veterinary care, optometry, physical therapy. Depending on career interests, there are two concentrations offered: General Biology and Pre-Health Professions. The General Biology concentration provides latitude to gain training in a variety of specific areas within the field of biology while the Pre-Health Professions concentration is designed to prepare students for entry into the majority of medical (allopathic (MD) and osteopathic (DO)), dental, optometry, veterinary, and physical therapy schools.

Completion of either concentration will require students to focus on completing courses within the core curriculum in years one and two while focusing on the completion of concentration specific courses within years three and four. To complete the degree in a timely manner, students will need to seek academic advisement for assistance with selection of a concentration and with selecting courses in the correct sequence.

Core Curriculum 59-61 cr.

Course Name	Credits:	Term Taken	Grade
BIO 221 - Zoology	Credits: 4		
BIO 225 - Botany	Credits: 4		
BIO 325 - Introductory Molecular Cell Biology Prerequisite(s): CH 108 and CH 108L.	Credits: 3		
BIO 327 - Introductory Ecology and Evolution Prerequisite(s): BIO 221, BIO 225 and NS 220 or permission of instructor.	Credits: 4		
BIO 340 - Genetics Prerequisite(s): BIO 325.	Credits: 4		
MA 160 - Precalculus for Majors Prerequisite(s): MA 125, or an ACT math score ≥ 26 , or a SAT math score ≥ 610 , or successful placement by the Park University placement test.	Credits: 5		
PY 155 - Concepts of Physics I Corequisite(s): MA 160	Credits: 4		
PY 156 - Concepts of Physics II Prerequisite(s): PY 155. Corequisite(s): MA 160	Credits: 4		
or			
PY 205 - Introduction to Physics I Prerequisite(s): MA 221. Corequisite(s): MA 222.	Credits: 5		
PY 206 - Introduction to Physics II Prerequisite(s): PY 205.	Credits: 5		
NS 220 - Applied Statistics and Experimental Design	Credits: 3		
NS 302 - Current Literature in the Natural Sciences	Credits: 1		
NS 306 - Writing and Ethical Practices in Science Prerequisite(s): EN 105, EN 106, NS 302, and 60 accumulated hours.	Credits: 3		
NS 401 - Natural Science Seminar	Credits: 1		
CH 107 - General Chemistry I	Credits: 3		

Corequisite(s): MA 125 or higher and CH 107L which is a separate course that can be waived by permission of the instructor.			
CH 107L - General Chemistry Laboratory I Corequisite(s): CH 107 which is a separate course that can be waived by permission of the instructor.	Credits: 1		
CH 108 - General Chemistry II Prerequisite(s): 'C' or better in CH 107 or permission of instructor. Corequisite(s): CH 108L which is a separate course that can be waived by permission of the instructor.	Credits: 3		
CH 108L - General Chemistry Laboratory II Prerequisite(s): 'C' or better in CH 107L or permission of instructor. Corequisite(s): CH 108 which is a separate course that can be waived by permission of the instructor.	Credits: 1		
CH 317 - Organic Chemistry I Prerequisite(s): CH 108 . Corequisite(s): CH 317L except in 8-week programs. which is a separate course that can be waived by permission of the instructor.	Credits: 3		
CH 317L - Organic Chemistry Laboratory I Corequisite(s): CH 317 which is a separate course that can be waived by permission of the instructor.	Credits: 1		
CH 318 - Organic Chemistry II Prerequisite(s): CH 317. Corequisite(s): CH 318L which is a separate course that can be waived by permission of the instructor.	Credits: 3		
CH 318L - Organic Chemistry Laboratory II Corequisite(s): CH 318 which is a separate course that can be waived by permission of the instructor.	Credits: 1		
BIO 498 - Biology Capstone Prerequisite(s): Permission of the instructor	Credits: 3		

Approved Electives

General Biology Concentration 12 cr.

The general biology electives are supplemental to the core requirements and are intended to allow students the opportunity to focus on sub-disciplines within the field of biology. Students are strongly encouraged to seek academic advising to aid in career preparation, especially those interesting in post-graduate studies (M.S. or Ph.D.).

Course Name	Credits:	Term Taken	Grade
BIO 330 - Paleobiology	Credits: 4		
BIO 337 - Biochemistry Prerequisite(s): CH 318 and CH 318L Corequisite(s): BIO 337L which is a separate course that can be waived by permission of the instructor.	Credits: 3		
BIO 337L - Biochemistry Laboratory Corequisite(s): BIO 337 which is a separate course that can be waived by permission of the instructor.	Credits: 1		
BIO 350 - Microbiology Prerequisite(s): BIO 325, CH 108 and CH 108L.	Credits: 4		
BIO 375 - Evolution	Credits: 3		
BIO 378 - Ecology Prerequisite(s): CH 107 .	Credits: 4		
BIO 380 - Issues in Biodiversity	Credits: 3		
BIO 400 - Cell Biology Prerequisite(s): BIO 325, CH 317 and CH 317L.	Credits: 4		
BIO 410 - Comparative Anatomy Prerequisite(s): BIO 221.	Credits: 4		
BIO 411 - Animal Physiology Prerequisite(s): BIO 221 and CH 108 .	Credits: 4		
BIO 417 - Developmental Biology Prerequisite(s): BIO 325, CH 317 and CH 317L.	Credits: 4		

BIO 470 - Internship	Credits: 1-4		
BIO 490 - Advanced Topics in Biology	Credits: 1-4		
BIO 499 - Research	Credits: 1-6		

Pre-Health Professions Concentration 20 cr.

The pre-health professions concentration contains additional requirements and electives intended to aid students in their preparation for a career in a wide variety of medical fields. This program will satisfy entrance for many medical programs, but check specific requirements for your program of interest to determine if specific courses, such as Calculus, are required.

Course Name	Credits:	Term Taken	Grade
BIO 337 - Biochemistry Prerequisite(s): CH 318 and CH 318L Corequisite(s): BIO 337L which is a separate course that can be waived by permission of the instructor.	Credits: 3		
BIO 337L - Biochemistry Laboratory Corequisite(s): BIO 337 which is a separate course that can be waived by permission of the instructor.	Credits: 1		
BIO 410 - Comparative Anatomy Prerequisite(s): BIO 221.	Credits: 4		
BIO 411 - Animal Physiology Prerequisite(s): BIO 221 and CH 108 .	Credits: 4		

Electives 8 cr.

Select two from the following

Course Name	Credits:	Term Taken	Grade
BIO 350 - Microbiology Prerequisite(s): BIO 325, CH 108 and CH 108L.	Credits: 4		
BIO 400 - Cell Biology Prerequisite(s): BIO 325, CH 317 and CH 317L.	Credits: 4		
BIO 417 - Developmental Biology Prerequisite(s): BIO 325, CH 317 and CH 317L.	Credits: 4		

Note:

A comprehensive Senior Examination is to be taken during BIO 498.

Liberal Education Requirements

Student Seminar 3 cr.

LE 100 First-Year Seminar

Writing Seminar 6 cr.

EN 105 and EN 106

Math Requirement 3 cr.

Select one of the following:

MA 120, MA 135, or higher math course excluding MA 208

Ethics Requirement 3 cr.

Select one of the following:

CA 302, CS 300, EDU 310, MG 495, NS 306, PA 380, PH 102, PH 221, PH 308, PS 220, SO 220 or SW 492

Humanities Requirement 6 cr.

Select one of the following Art or English:

AR 115, AR 215, AR 216, EN 201, EN 221, EN 232, EN 234

And one of the following:

AR 115, AR 215, AR 216, EN 201, EN 221, EN 232, EN 234, CA 104 , CA 116, CA 235, FR 201, ML 235,ML 251, PH 101, PC 202 ,PH 205, RE 109, SP 110, SP 201, SP 202, TH 100, TH 101, TH 201, TH 216

Natural Science Requirement 3 cr.

Select one of the following:

BI 214, CH 101, CH 102, CH 107 and CH 107L, CH 108 and CH 108L, GGP 115, GGP 120, GGP 205, GO 125, GO 130, GO 141, GO 151, GO 200, NS 220, NS 241, PY 101, PY 155, PY 156, PY 205, or PY 206

*Computer Science and PE courses excluded.

Science with a lab Requirement 4 cr.

Select one of the following:

BI 101, BI 111, BI 223, BI 211, BI 212, BIO 221, BIO 225, BIO 325, BIO 327, BIO 330, BIO 337L and BIO 337, BIO 350, BIO 378, BIO 400, BIO 410, BIO 411, BIO 417, CH 107L and CH 107, CH 108L and CH 108, CH 317L and CH 317, CH 318L and CH 318, CH 328, CH 329, CH 337L and CH 337, CH 405, CH 440, GGP 115, GGP 205, GO 130, GO 141, GO 151, GO 200, GO 310, GO 320, GO 330, PY 155, PY 156, PY 205, or PY 206

Citizenship Requirement 3 cr.

Select one of the following:

PO 200, PO 210, HIS 111, HIS 112, or HIS 113

Communications Requirement 3 cr.

Select one of the following:

CA 103, CA 105, or TH 105

Social Science Requirement 6 cr.

Select two of the following:

AN 100, CJ 100, CJ 200, EC 141, EC 142, EDU 210, FI 201, GGH 110, GGH 200, HIS 104, HIS 105, PO 216, PS 101, PS 125, PS 205, SO 141, SO 206, or SW 205

Seminar: Integrative & Interdisciplinary Learning 3 cr.

Select one of the topics for LE 300*

Graduation Requirements

Upper Division Hours 36 cr.

36 hours upper division (300 - 400) level course work

Professional Writing Requirement 3 cr.

EN 306A, EN 306B, EN 306C, EN 307, EDU 300, CJ 450, HIS 306, HIS 452, HIS 453, HIS 454, HIS 455, MG 306, NS 306, PA 430, PO 405, PS 300, PS 406, or SO 300

Additional Requirements

Park University grants the Bachelor of Science, Bachelor of Public Administration, Bachelor of Science in Education, Bachelor of Fine Arts, and the Bachelor of Music Degree upon completion of the following requirements:

- Completion of a minimum of 120 semester hours with a cumulative 2.0 GPA (or higher dependent on major).
- A minor for Geography and Information Systems majors.
- Satisfaction of all requirements for a major.
- Completion of degree specific requirements.
- Completion of Liberal Education requirements.
- Completion of residency requirement, 30 hours of earned and graded (A, B, C, D) college hours at Park University. At least 15 of these 30 hours must be in the major.

Notes: