

FINLANDIA
UNIVERSITY

Suomi College of Arts & Sciences
Academic Progress Sheet 2022 – 2023

DEGREE: BACHELOR OF SCIENCE – Biology

MINOR: _____

NAME: _____

ADVISOR: _____

STUDENT NUMBER: _____

ANTICIPATED GRAD. DATE: _____

CORE CURRICULUM REQUIREMENTS **39 credits**

Proficiencies:

ENG 103*	College English I	3
ENG 104*	College English II	3
COM 108	Fundamentals of Public Speaking	3
MAT 191	Calculus I	4

Perspectives:§

UNS 115	Sisu Seminar	1
REL/FNS	Religion or Finnish Studies	3
BIO 113	Biology: Diversity of Life	4
Humanities+	Three Courses	9
Social Sciences++	Three Courses	9

- * Must be successfully completed before taking WI courses.
 § No more than six credits of one discipline, except up to eight credits of the same foreign language.
 + Includes courses in ARD, COM, DRM, ENG (but not ENG 101), FNS, HIS, HUM, MUS, PHL, REL, or foreign language.
 ++Includes courses in ANT, COM, ECN, ENV, GEO, GSS, HIS, PLS, PSY, and SOC.

BIOLOGY MAJOR REQUIREMENTS **59 credits**

Finlandia's biology majors develop the skills to study human and environmental biology. Students will pursue an interdisciplinary natural science curriculum, including cell biology, genetics, biodiversity, and ecology. Laboratory and field experiences emphasize science process skills related to critical reading and writing, designing and conducting experiments, and data analysis and interpretation. The biology degree prepares students for careers in health care, industry, or research in the natural sciences, as well as preparation for graduate training including medical fields, environmental law, forensic science, and ecology, among others.

Supporting Science Courses **24 credits**

CHM 115	General Chemistry I	4
CHM 116	General Chemistry II	4
CHM 215	Organic Chemistry I	4
CHM 216	Organic Chemistry II	4
PHS 105	College Physics I	4
PHS 106	College Physics II	4

Biology Core Requirements **17 credits**

BIO 100	The Biology Major	1
BIO 111	Biology: Essentials for Life	4
BIO 300	Ecology	4
BIO 320	Genetics	4
BIO 382	Junior Seminar	1
BIO 453	Research Methods and Biostatistics	3

Biology Electives **14 credits**

Select 8 credits of anatomy and physiology.

BIO 171	Anatomy & Physiology I	4
BIO 172	Anatomy & Physiology II	4
OR		
BIO 241	Comparative Vertebrate Anatomy	4
BIO 251	Animal Physiology	4

Select at least 6 credits of biology electives.

BIO 273	Microbiology	4
BIO 330	Cell Biology	3
BIO 350	Topics in Biology^	3
BIO 389	Internship in Biology	3
BIO 410	Biochemistry	3
BIO 445	Evolutionary Biology	3
BIO 482	Senior Seminar	1

^Possible topics courses include: Molecular Biology, Developmental Biology, Limnology, Animal Behavior, and Conservation Biology.

Senior Capstone Project **4 credits**

BIO 495	Capstone Prep Course	1
BIO 499	Senior Capstone	3

MINOR AND/OR OPEN ELECTIVES **22 credits**

See the Campus Catalog for available minors and their requirements.

TOTAL CREDITS: 120

Pre-Professional Preparation

Students pursuing the biology degree can also prepare for admission to graduate school in general medicine, dentistry, veterinary medicine, pharmacy, physical therapy, occupational therapy, chiropractic, and optometry, among others. Admission requirements vary widely among programs and schools, but most require a set of completed prerequisite courses, a high GPA, a competitive score on standardized tests (e.g., GRE, MCAT), and letters of recommendations. Students interested in pursuing a professional program will spend their first semester researching the educational requirements for their particular program of interest at various schools.

ADDITIONAL DEGREE REQUIREMENTS

- Count no more than 12 credits of WEL performance towards graduation.
- Complete at least 30 of the last 36 credits at Finlandia immediately prior to graduation.
- Complete at least 30 credits at the 300/400 level.
- Complete at least 18 credits for the major at Finlandia University.
- Attain a minimum cumulative GPA of 2.0.
- Attain a minimum grade of C- for each course in the major.
- Complete at least three WI courses from at least two disciplines.

BACHELOR OF SCIENCE – BIOLOGY 2022 – 2023 SUGGESTED COURSE SEQUENCE

FIRST SEMESTER		13 CREDITS
UNS 115	Sisu Seminar	1
BIO 100	The Biology Major	1
BIO 113	Biology: Diversity of Life	4
CHM 115	General Chemistry I	4
ENG 103	College English I	3

THIRD SEMESTER		14 CREDITS
BIO XXX	Anatomy and/or Physiology	4
PHS 105	College Physics I	4
REL/FNS	Religion or Finnish Studies	3
COM 108	Fundamentals of Public Speaking	3

FIFTH SEMESTER		17 CREDITS
BIO 300	Ecology	4
CHM 215	Organic Chemistry I	4
Perspectives	Humanities or Social Science	3
Perspectives	Humanities or Social Science	3
Minor/Elective	Minor or Open Elective	3

SEVENTH SEMESTER		15 CREDITS
BIO 320	Genetics	4
Perspectives	Humanities or Social Science	3
Minor/Elective	Minor or Open Elective	3
Minor/Elective	Minor or Open Elective	3
BIO 495	Capstone Prep Course	1
Elective	Open Elective	1

SECOND SEMESTER		15 CREDITS
BIO 111	Biology: Essentials for Life	4
ENG 104	College English II	3
CHM 116	General Chemistry II	4
MAT 191	Calculus I	4

FOURTH SEMESTER		17 CREDITS
BIO XXX	Anatomy and/or Physiology	4
PHS 106	College Physics II	4
BIO XXX	Biology Elective	3
Perspectives	Humanities or Social Science	3
Perspectives	Humanities or Social Science	3

SIXTH SEMESTER		14 CREDITS
BIO 453	Research Methods and Biostatistics	3
CHM 216	Organic Chemistry II	4
BIO 382	Junior Seminar	1
Perspectives	Humanities or Social Science	3
Minor/Elective	Minor or Open Elective	3

EIGHTH SEMESTER		15 CREDITS
BIO XXX	Biology Elective	3
Minor/Elective	Minor or Open Elective	3
Minor/Elective	Minor or Open Elective	3
Minor/Elective	Minor or Open Elective	3
BIO 499	Senior Capstone	3

PROGRAM CHECKLIST

CORE CURRICULUM			
<u>COURSE</u>	<u>CREDITS</u>	<u>SEM./YR.</u>	<u>GRADE</u>
ENG 103	3	_____	_____
ENG 104	3	_____	_____
COM 108	3	_____	_____
MAT 191	4	_____	_____
UNS 115	1	_____	_____
REL/FNS	3	_____	_____
BIO 113	4	_____	_____
Humanities	9	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Social Sciences	9	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SUPPORTING AND BIOLOGY CORE COURSES			
<u>COURSE</u>	<u>CREDITS</u>	<u>SEM./YR.</u>	<u>GRADE</u>
CHM 115	4	_____	_____
CHM 116	4	_____	_____
CHM 215	4	_____	_____
CHM 216	4	_____	_____
PHS 105	4	_____	_____
PHS 106	4	_____	_____
BIO 100	1	_____	_____
BIO 111	4	_____	_____
BIO 300	4	_____	_____
BIO 320	4	_____	_____
BIO 382	1	_____	_____
BIO 453	3	_____	_____

BIOLOGY ELECTIVES			
<u>COURSE</u>	<u>CREDITS</u>	<u>SEM./YR.</u>	<u>GRADE</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SENIOR CAPSTONE			
BIO 495	1	_____	_____
BIO 499	3	_____	_____

MINOR AND/OR OPEN ELECTIVES			
<u>COURSE</u>	<u>CREDITS</u>	<u>SEM./YR.</u>	<u>GRADE</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____