Sciences, Interdisciplinary

Degree: Bachelor of Science
Program: Interdisciplinary Science
Building 58, Room 79
(850) 474-2748
http://uwf.edu/biology/
biology@uwf.edu
College: Arts and Sciences
Semester Hours Required for Degree: 120

Program Contact: G. Stewart (Coordinator)

The Interdisciplinary Science program is designed for those students who want a broadly based education in the natural sciences and mathematics rather than an in-depth study of one field. The program covers biology, chemistry, computer science, environmental studies, mathematics, physics, and zoo science and is flexible to meet individual interests.

Since some professional schools prefer their applicants to demonstrate excellence in a specific discipline, the interdisciplinary science major considering dentistry, medicine, optometry or veterinary medicine should consult a preprofessional advisor.

The Zoo Science Specialization is designed for and limited to students who have completed an Associate's Degree in the field. It provides further study of the field with an emphasis on the biological sciences. The specialization has been designed to prepare students for a wide variety of careers in the animal industry, in such fields as zookeeper, curator, or director or operating one's own animal industry business. It is not designed as a pre-veterinary medicine program and does not include all of the courses normally required for admission to a school of veterinary medicine.

PROGRAM REQUIREMENTS

In addition to general University requirements, students seeking the B.S. in Interdisciplinary Science must meet the requirements listed below.

Students should consult with their academic advisor for courses which may satisfy both the General Studies requirements and common prerequisites.

A grade of "C" or better is required in all common prerequisite courses. A grade of "C-" or higher is required in all major courses.

Course descriptions are listed alphabetically by prefix in the back of this *Catalog*.

General Studies (36 sh)

For addition information see the General Studies section of this *Catalog.*

Common Prerequisites

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. Courses in brackets indicate substitutes from Florida public community/junior colleges and universities.

Complete the common prerequisites for the two areas selected (biology, chemistry, computer science, environmental studies, mathematics, and physics) listed below.

BIOLOGY (28 SH)

+BOT	2010/L	General Botany/Lab [BSC x040, 2012, PCB x010, x011, x021, x131]	4

+CHM	2045/L	General Chemistry I/Lab [CHM x045/L, x045E, x045I]	4
+CHM	2046/L	General Chemistry II/Lab [CHM x046, x046/L, x046C, x046E]	4
+MAC	2311	Analytic Geometry & Calculus I [MAC x311]	4
+ZOO	1010/L	General Zoology/Lab [BSC x010, x010L]	4

Choose one (Option 1 is recommended if second discipline is Chemistry, Computer Science, Mathematics, or Physics. Option 2 is recommended if Environmental Studies is second discipline):

Option 1

+PHY	2048/L	University Physics I/Lab [PHY x048/L]	4
+PHY	2049/L	University Physics II/Lab [PHY x049/L]	4

Option 2

+PHY	2053/L	General Physics I/Lab [PHY x053/L, 2053C]	4
+PHY	2054/L	General Physics II/Lab [PHY x054/L, 2054C]	4

CHEMISTRY (24 SH)

+CHM	2045/L	General Chemistry I/Lab [CHM x045/L, x045C]	4
+CHM	2046/L	General Chemistry II/Lab [CHM x046/L, x046C, x046E]	4
+MAC	2311	Analytic Geometry & Calculus I [MAC x311]	4
+MAC	2312	Analytic Geometry & Calculus II [MAC x312]	4

Choose one:

Option 1

+CHM	2210/L	Organic Chemistry I/Lab [CHM 2210C]	4
+CHM	2211/L	Organic Chemistry II/Lab [CHM 2211C]	4

Option 2

+PHY	2048/L	University Physics I/Lab [PHY x048L]	4
+PHY	2049/L	University Physics II/Lab [PHY x049L]	4

Option 3

+PHY	2053/L	General Physics I/Lab [PHY x053/L, 2053C]	4
+PHY	2054/L	General Physics II/Lab [PHY x054/L, 2054C]	4

COMPUTER SCIENCE (15 SH)

COP	xxxx	Introductory Programming in Ada, C, C++, Pascal, or equivalent language	3

+MAC	2311	Analytic Geometry & Calculus I	4

Choose one:

Option 1 is recommended

+PHY	2048/L	University Physics I/Lab [PHY x048/L]	4
+PHY	2049/L	University Physics II/Lab [PHY x049/L]	4

Option 2

+PHY	2053/L	General Physics I/Lab [PHY x053/L, 2053C]	4
+PHY	2054/L	General Physics II/Lab [PHY x054/L, 2054C]	4

ENVIRONMENTAL STUDIES (20 SH)

+CHM	2045/L	General Chemistry I/Lab [CHM x045/L, x045C, x045I]	4
+CHM	2046/L	General Chemistry II/Lab [CHM x046/L, x046C, x046E]	4

Choose one:

+GEO	1200/L	Physical Geography/Lab [GEO x200/L]	4
+GLY	2010/L	Physical Geology/Lab	4

Choose one:

Option 1

+PHY	2048/L	University Physics I/Lab [PHY x048/L]	4
+PHY	2049/L	University Physics II/Lab [PHY x049/L]	4

Option 2 is recommended

+PHY	2053/L	General Physics I/Lab [PHY x053/L, 2053C]	4
+PHY	2054/L	General Physics II/Lab [PHY x054/L, 2054C]	4

MATHEMATICS (12 SH)

+MAC	2311	Analytic Geometry & Calculus I [MAC x311]	4
+MAC	2312	Analytic Geometry & Calculus II [MAC x312]	4
+MAC	2313	Analytic Geometry & Calculus III [MAC x313]	4

PHYSICS (24 SH)

+CHM	2045/L	General Chemistry I/Lab [CHM x045/L, 1045C, 1045I]	4
+CHM	2046/L	General Chemistry II/Lab [CHM x046/L, 1046C, 1046E, 1046I]	4
+MAC	2311	Analytic Geometry & Calculus I [MAC x311]	4
+MAC	2312	Analytic Geometry & Calculus II [MAC x312]	4

Choose one:

Option 1 is recommended

+PHY	2048/L	University Physics I/Lab [PHY x048/L]	4
+PHY	2049/L	University Physics II/Lab [PHY x049/L]	4

Option 2

+PHY	2053/L	General Physics I/Lab [PHY x053/L, 2053C]	4
+PHY	2054/L	General Physics II/Lab [PHY x054/L, 2054C]	4

\+ *Indicates common prerequisites which can be used to satisfy General Studies requirements.*

Lower Division Electives (0-14 sh)
Sufficient 1000/2000 level electives to complete at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4999) to meet this elective requirement.

Major (36-43 sh)
Choose the upper division course work applicable to the selected disciplines. The program requires specific upper-division course work in each of the two selected sciences as indicated below. Consult coordinator.

BIOLOGY (19 SH)

Choose three:

BCH	3033/L	Biochemistry I/Lab	4
PCB	3063/L	Genetics/Lab	4
PCB	3253/L	Developmental Biology/Lab	4
PCB	4043/L	Ecology/Lab	4
PCB	4723/L	Comparative Animal Physiology I/Lab	4

Electives (7 sh):
Selected with faculty advisor; at least two 3000/4000 level courses which must include an advanced botany course with lab.

CHEMISTRY (20-22 SH)

CHM	3120/L	Analytical Chemistry/Lab	4
CHM	3230	Organic Chemistry III: Structure	3
CHM	3410	Physical Chemistry I	4
CHM	3411	Physical Chemistry II	4
CHM	3610	Intermediate Inorganic Chemistry	3

Choose one:

CHM	3740L	Experimental Chemistry I: Structure	2
CHS	4100/L	Radiochemical Techniques/Lab	4

COMPUTER SCIENCE (18-21 SH)

CDA	3100	Microprocessor Systems	3
CIS	3021	Science of Computing	3
COP	3022	Intermediate Computer Programming	3
COP	3530	Data Structures and Algorithms	3
COP	4600	Operating Systems	3
COT	3100	Applications of Discrete Structures	3

If not completed at the Lower Division:

COP	2253	Programming Using Java	3

ENVIRONMENTAL STUDIES (21 SH)

AST	3033	Modern Astronomy	3
BSC	2311	Introduction to Oceanography & Marine Biology	3
GEO	3100/L	Cartographic Skills/Lab	4
GEO	3210/L	Geomorphology/Lab	4
GEO	3250/L	Weather & Climate/Lab	4

Choose one:

GEO	3470	Geography of World Affairs	3
GEO	3502	Economic Geography	3

MATHEMATICS (18 SH)

MAP	2302	Differential Equations	3
MAS	3105	Linear Algebra	3
	3000/4000 level Math/Stat Electives		12

PHYSICS (19 SH)

EEL	3111	Circuits I	3
EEL	3303L	Electric Circuits Laboratory	1
PHY	3106	Modern Physics I	3
PHY	3106L	Modern Physics Lab	2
PHY	3220	Intermediate Mechanics	4
PHY	4323	Electricity & Magnetism I	3

Choose one:

MAS	4156	Vector Analysis	3
PHZ	4113	Mathematical Physics I	3

Major-Related (17-24 sh)

Remaining courses must be in the related disciplines and approved by the academic advisor.

Upper Division Electives (0 sh)

ZOO SCIENCE SPECIALIZATION

The Zoo Science Specialization is designed for and limited to students who have completed an Associate's Degree in the field.

General Studies (36 sh)

Students transferring from Florida Community Colleges with an Associate of Science should consult with an advisor in the department before determining which other courses will need to be taken to complete UWF's General Studies Program. For additional information, see the General Studies section of this *Catalog.*

Common Prerequisites* (52 sh)

+CHM	2045/L	General Chemistry I/Lab [CHM x045/L]	4
+CHM	2046/L	General Chemistry II/Lab [CHM 2046/L]	4
+ENC	1101	English Composition I [ENC x101]	3
+ENC	1102	English Composition II [ENC x102]	3

+LIT	2___	Literature Course	3
+MAC	1105	College Algebra [MAC x105]	3
PAZ	____	Animal Science Courses	15
+PSY	2012	General Psychology [PSY x012]	3
+STA	2023	Elements of Statistics [STA x023]	3
+ZOO	1010/L	General Zoology/Lab [ZOO x010/L]	4

Choose one:

+BSC	2010/L	Integrated Principles of Biology/Lab [BSC x010/L]	4
+PCB	2131/L	Cell Biology/Lab [PCB x131/L]	4

Choose one:

+SPC	1600	Public Speaking	3
+SPC	2016	Basic Communication Skills	3

\+ *Indicates common prerequisites which can be used to satisfy General Studies requirements.*

* *Pending approval by the State Articulation Coordinating Committee.*

Lower Division Electives (0 sh)

Major Courses (25-26 sh)

PCB	3063/L	Genetics/Lab	4
PCB	3253/L	Developmental Biology/Lab	4
PCB	4043/L	Ecology/Lab	4
PCB	4723/L	Comparative Animal Physiology I/Lab	4

Choose three (9-10 sh)

BSC	4303	Biogeography	3
PCB	4673	Principles of Evolution	3
ZOO	3233/L	Parasitology/Lab	4
ZOO	4485	Marine Mammalogy	3

Major-Related Courses (34-35 sh)

*ECO	3003	Principles of Economic Theory & Public Policy	3
FIN	3403	Managerial Finance	3
MAN	3025	Management Fundamentals	3
MAR	3023	Marketing Fundamentals	3
*	3000/4000 level Fine Arts Course		3
*	3000/4000 level Historical Issues Course		3

* *Courses may be used to meet General Studies requirements if student has not earned an Associate of Arts degree from a Florida Public Institution. If the fine arts and historical issues requirements are met with lower division courses, students will be able to select an advisor approved 3000/4000 level course to fulfill the 48 hour upper division requirement.*

Choose 5-6 sh:

•ACG	3082	Accounting for Non-Majors	3
STA	4173	Biostatistics	3
		3000/4000 level Biology Directed Study	2
•		3000/4000 level Business Elective	3

• *Choosing these 2 Business courses affords students the opportunity to earn a Business Minor. Business minors must also include a computer literacy course. See advisor for details.*

Required additional Animal Science (PAZ) courses transferred from Community College 11-12

(Number of hours varies according to previous selection.)

Upper Division Electives (0-1 sh)

Sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or completion of all departmental requirements at the 3000/4000 level, whichever is greater.