

SCIENCES, INTERDISCIPLINARY

Degree: Bachelor of Science
 Program: Interdisciplinary Science
 Building 58, Room 151
 (850) 474-2739
 chemistry@uwf.edu
 College: Arts and Sciences
 Semester Hours Required for Degree: 120

Program Contact: S.P. Tanner (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 environmental studies, mathematics, computer science, physics, chemistry, and biology and is flexible to meet individual interests.

The interdisciplinary science degree prepares students for careers in environmental science, health support professions, forensic science, pharmaceutical science, or other scientific areas.

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.

A Pre-Dental specialization is also available in the Biology/Chemistry track.

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.

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

Courses in brackets indicate substitutes from Florida Public Community/Junior Colleges and Universities.

BIOLOGY (28 sh)

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

Choose one:

+ BSC	1010/L	General Biology/Lab 4 [BSC x010, x010L]
+ ZOO	1010/L	General Zoology/Lab 4

Choose one:

+ BSC	2011/L	General Biology/Lab 4 [BSC x040, 2012]
+ BOT	2010/L	General Botany/Lab 4 [PCB x010, x011, x021, x131]

Choose one (Option 1 is recommended):

Option 1

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

Option 2

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

CHEMISTRY (24 sh)

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

Choose one:

Option 1

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

Option 2

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

Option 3

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

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

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

Option 2

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

EARTH SCIENCE (20 sh)

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

Choose one:

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

Choose one:

Option 1

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

Option 2

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

MATHEMATICS (12 sh)

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

PHYSICS (24 sh)

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

Choose one:

Option 1

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

Option 2

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

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

Lower Division Electives

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 (34-42 sh)

Choose the upper division coursework 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 (16-18 sh)

CHM	3120/L	Analytical Chemistry/Lab	4
CHM	3230	Organic Chemistry III: Structure	3
CHM	3410	Physical Chemistry I	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	3020	Introduction to CIS	3
CIS	3025	Science of Computing	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
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EARTH SCIENCE (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 Lab	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 (0 sh)**Upper Division Electives (18-26 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.

PRE-DENTAL SPECIALIZATION

Students must comply with the admission requirements to this specialization discussed in the pre-dental program description in the Undergraduate Degree Programs section of this Catalog.

General Studies (36 sh)

For additional information see the General Studies section of this catalog. Pre-Dental students should take DEP 2004 to meet the social science/behavioral component of General Studies.

Common Prerequisites (32 sh)

State mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program.

Pre-Dental majors should complete the common prerequisites listed above for Biology and Chemistry.

Lower Division Electives (0-5 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 (32-42 sh)

BCH 3033/L	Biochemistry I/Lab	4
CHM 3120/L	Analytical Chemistry/Lab	4
CHM 3230	Organic Chemistry III: Structure	3
CHM 3410	Physical Chemistry I	4
CHM 3610	Intermediate Inorganic Chemistry	3
MCB 3020/L	Microbiology/Lab	4
PCB 3063/L	Genetics/Lab	4

Choose one:

PCB 3253/L	Developmental Biology	4
PCB 4723/L	Comparative Animal Physiology/Lab	4

Choose one:

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

If not completed at the Lower Division:

CHM 2210/L	Organic Chemistry I/Lab	0-4
CHM 2211/L	Organic Chemistry II/Lab	0-4

Major-Related (16-27 sh)

*DEN 5100C	Human Anatomy	6
*DEN 5120	Principles of Physiology	6
*DEN 5121C	Biochemistry and Molecular Biology	4

*Courses taken at UF College of Dentistry

If not completed at the Lower Division:

DEP 2004	Human Development Across the Lifespan	3
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If not completed at the Lower Division, choose one option:

Option 1

PHY 2048/L	University Physics I/Lab	0-4
PHY 2049/L	University Physics II/Lab	0-4

Option 2

PHY 2053/L	General Physics I/Lab	0-4
PHY 2054/L	General Physics II/Lab	0-4

Upper Division Electives (0-12 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.