

**SUMMARY OF REQUIREMENTS**

Name: \_\_\_\_\_

Date of Graduation: Year \_\_\_\_\_ May \_\_\_\_\_ Aug \_\_\_\_\_ Dec \_\_\_\_\_

Degree Program: BioBA (035) \_\_\_\_\_ BioBS (040) \_\_\_\_\_ BioBA PreHealth (036) \_\_\_\_\_  
ZooBA (230) \_\_\_\_\_ ZooBS (235) \_\_\_\_\_**College-wide Degree Requirements:**

- \_\_\_ Overall cumulative average at least 2.0
- \_\_\_ Cumulative average in major at least (include cognate courses) 2.0
- \_\_\_ Minimum of half of major at Oswego
- \_\_\_ BA: maximum of 48 hours in one discipline (Note: Bio and Zoo are **not** separate disciplines)
- \_\_\_ Minimum of 60 hours at a four-year institution
- \_\_\_ Minimum of 30 hours at SUNY Oswego
- \_\_\_ Minimum of 42 hours of upper division courses (numbered 300 or higher & does not include any hours from 2 yr. colleges.)
- \_\_\_ Minimum total of 122 hours

**General Education Requirements (GE2000):** see newspaper for approved courses**Basic Skills:**

- \_\_\_ Writing Eng 102 (1 course or waiver)
- \_\_\_ Computer Literacy (1 course, e.g. Bio 289, or waiver)
- \_\_\_ Critical Thinking (1 course or waiver)

**Foreign Language:** satisfied by high school study of another language through Regents level 4; high school study of two other languages (through level 2 in each); CLEP exam; or completion of a 102-level college language course or equivalent

- \_\_\_ (approved course #1)
- \_\_\_ (approved course #2)

**Knowledge Foundations:**

- \_\_\_ Fine & Performing Arts (1 approved course)
- \_\_\_ Humanities (1 approved course)
- \_\_\_ Mathematics (1 approved course, e.g. Math 179, Math 210)
- \_\_\_ Social & Behavioral Sciences (2 approved courses from 2 disciplines)
- \_\_\_ (approved course # 1)
- \_\_\_ (approved course # 2)

**America & the Western Heritage:**

- \_\_\_ American History (1 approved course)
- \_\_\_ Western Civilization (1 approved course)

**Human Diversity:**

- \_\_\_ Tolerance & Intolerance in the U.S. (1 approved course)
- \_\_\_ Non-Western Civilizations (1 approved course)

**Intellectual Issues:**

- \_\_\_ Explorations in the Natural Sciences (1 approved course e.g. Bio 303, Bio 341, Bio 363, Bio 400)
- \_\_\_ Cultures & Civilizations OR Self & Society (1 approved course)

**Expository writing:** 5 approved courses (see pages 4 & 5)

1. **Introductory Level** (e.g. Bio 112) \_\_\_\_\_
2. **Writing to Learn** (At least two courses must be from list of approved courses; see page 4).  
Course # 1 \_\_\_\_\_ course #2 \_\_\_\_\_ course #3 \_\_\_\_\_
3. **Advanced Level Course** (one course, see pages 4 & 5) \_\_\_\_\_

**Oral Communication:** A minimum of one course at each level selected from the list of approved courses (see pages 4 & 5)

1. **Introductory Level** \_\_\_\_\_ (e.g. Bio 112/213)
2. **Intermediate Level** \_\_\_\_\_
3. **Advanced Level** \_\_\_\_\_ (or presentation at Quest or professional meeting)

## BIOLOGY DEGREE REQUIREMENTS

### Core Requirements--required of all Biology majors

Bio 112 \_\_\_\_\_ Problems \_\_\_\_\_  
Bio 213 \_\_\_\_\_ Problems \_\_\_\_\_  
Bio 315 \_\_\_\_\_ BA: one Problems course selected from Bio 492  
BS: two Problems courses selected from Bio 492, 497

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### Elective Requirements

- Electives must include at least one course from each of the three Areas; remaining courses to be selected from Free Electives and unused Area Electives:  
**Biology BA--22 hrs** of Area and Free electives  
**Biology BS--30 hrs** of Area and Free electives
  - Laboratory course requirement – at least 3 (BA) or 4 (BS) courses from Area and Free electives. These courses may also be used to meet credit requirements in Free Electives and Area Electives.
  - BS students must develop with advisor's approval a concentration of three closely related courses selected from Free Electives and Area Electives. Courses in the concentration may also be used to meet other requirements in Free Electives and Area Electives:  
1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_
  - Three hrs (BA) or six hrs (BS) of appropriate courses (i.e., pertain closely to student's career objectives) from other departments may be applied with advisor's approval toward requirements for the major if those courses are not also used to meet cognate requirements:  
BA: \_\_\_\_\_ BS: 1. \_\_\_\_\_ 2. \_\_\_\_\_
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Area Electives († indicates lab course)	Free Electives	Bio 499 _____
<b>Area 1. Organismal Biology/Systematics</b>		†Zoo 321 _____
†Bio 340 _____	Bio 289 _____	†Zoo 370 _____
†Bio 356 _____	†Bio 300 _____	†Zoo 373 _____
†Bio 357 _____	Bio 301 _____	†Zoo 376 _____
†Bio 370 _____*	Bio 303 _____	†Zoo 384 _____
†Zoo 330 _____	Bio 341 _____	†Zoo 385 _____
†Zoo 340 _____	†Bio 345 _____	Zoo 399 _____
<b>Area 2. Ecology/Behavioral Biology</b>	Bio 363 _____	†Zoo 405 _____
Bio 320 _____	†Bio 388 _____	†Zoo 440 _____
†Bio 325 _____	Bio 399 _____	Zoo 490 _____
†Bio 358 _____	Bio 400 _____	Zoo 497 _____
	Bio 425 _____	Zoo 498 _____
<b>Area 3. Physiology/Cellular Biology</b>	Bio 439 _____	Zoo 499 _____
Bio 309 _____	†Bio 440 _____	
†Bio 310 _____	Bio 460 _____	
†Zoo 305 _____	†Bio 492 _____**	
†Zoo 306 _____	Bio 498 _____	
Zoo 320 _____		
Zoo 380 _____		

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### Cognate Requirements--Biology BA and BS

Che 111 \_\_\_\_\_ and Che 212 \_\_\_\_\_  
Che 230/230L \_\_\_\_\_ and Che 360/360L \_\_\_\_\_ or Che 331 \_\_\_\_\_ and Che 332 \_\_\_\_\_  
Phy 111 \_\_\_\_\_ and Phy 212 \_\_\_\_\_  
Mat 158/179 \_\_\_\_\_ & Mat 258 \_\_\_\_\_ or Mat 210 \_\_\_\_\_ & Mat 220 \_\_\_\_\_ or Mat 158/179 \_\_\_\_\_ & Mat 210 \_\_\_\_\_

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\* Not open to those who have completed Zoo 330 (Invertebrate Zoology) or Zoo 340 (Vertebrate Zoology)

\*\* May be used as free electives if not used to meet Problems Requirement; some sections do not carry laboratory credit

## ZOOLOGY DEGREE REQUIREMENTS

### Core Requirements--required of all Zoology majors

Bio 112 \_\_\_\_\_ **Track 1** – Zoo 370 \_\_\_\_\_ and Zoo 373 \_\_\_\_\_  
Bio 213 \_\_\_\_\_  
Bio 315 \_\_\_\_\_  
Zoo 320 \_\_\_\_\_ or Zoo 380 \_\_\_\_\_  
Zoo 321 \_\_\_\_\_  
Zoo 490 \_\_\_\_\_ **Track 2** – Zoo 330 \_\_\_\_\_ and Zoo 340 \_\_\_\_\_

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### Elective Requirements

Electives:

With advisor's approval, students may take any biology or zoology course listed as a "Major Course" on page 4 or any biology problems course listed on page 5.

**NOTE:** Bio 370 is not open to those who have completed Zoo 330 or Zoo 340.

1. **Zoology BA** – 9 hrs of electives  
**Zoology BS** – 18 hrs of electives

1. \_\_\_\_\_ 4. \_\_\_\_\_  
2. \_\_\_\_\_ 5. \_\_\_\_\_  
3. \_\_\_\_\_ 6. \_\_\_\_\_

2. [Optional] six hrs (BA) or nine hrs (BS) of appropriate courses (i. e., pertain closely to student's career objectives) from other departments may be applied with advisor's approval toward requirements for the major if those courses are not also used to meet cognate requirements:

BA: 1. \_\_\_\_\_ 2. \_\_\_\_\_

BS: 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

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### Cognate Requirements--Zoology BA

Che 111 \_\_\_\_\_ and Che 212 \_\_\_\_\_

Che 230/230L. \_\_\_\_\_ and Che 360 \_\_\_\_\_ **or** Che 331 \_\_\_\_\_ and Che 332 \_\_\_\_\_

Phy 111 \_\_\_\_\_ and Phy 212 \_\_\_\_\_

Mat \_\_\_\_\_ and Mat \_\_\_\_\_ [6-8 hrs; to include Mat 158/179 or Mat 210;  
select from: Mat 102, 104, 120, 158/179, 210, 220, 258]

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### Cognate Requirements--Zoology BS

Che 111 \_\_\_\_\_ and Che 212 \_\_\_\_\_

Che 230/230L. \_\_\_\_\_ and Che 360/360L. \_\_\_\_\_ **or** Che 331 \_\_\_\_\_ and Che 332 \_\_\_\_\_

Phy 111 \_\_\_\_\_ and Phy 212 \_\_\_\_\_

Mat 158/179 \_\_\_\_\_ and Mat 258 \_\_\_\_\_ **or** Mat 210 \_\_\_\_\_ and Mat 220 \_\_\_\_\_

## BIOLOGY DEPARTMENT COURSES

Note: Many courses are not taught every semester – see college catalog and “Course Bulletin”

Course	Hrs	Lab?	Major Course	Writing Level	Oral Comm. Level	Title
Bio 101	4	✓				General Biology
Bio 112	4	✓	✓	1	1	College Biology I
Bio 200	3			2	2	Environmental and Population Biology
Bio 203	3					Human Biology
Bio 207	3					Understanding Evolution
Bio 213	4	✓	✓	1	1	College Biology II
Bio 289	3	✓	✓	2	2	Computer Applications in Biology
Bio 300	3	✓	✓			Field Natural History
Bio 301	3		✓	2	**	Topics in Modern Biology
Bio 303	3		✓	2	2	Conservation...Non-human Primates
Bio 309	3		✓			Cell Physiology
Bio 310	3	✓	✓			Microbiology
Bio 315	3		✓			Genetics
Bio 320	3		✓	2	2	Introductory Ecology
Bio 325	3	✓	✓	2	2	Behavioral Biology
Bio 340	3	✓	✓	2	2	Plant Kingdom
Bio 341	3		✓	2	2	Plants and Society
Bio 345	3	✓	✓			Trees and Shrubs
Bio 356	3	✓	✓			Local Flora
Bio 357	3	✓	✓	2	2	Plant Systematics
Bio 358	3	✓	✓	2	2	Plant Ecology
Bio 363	3		✓			Great Lakes Environmental Issues
Bio 370	3	✓	✓	2		Animal Kingdom
Bio 388	3	✓	✓	2		Field Herpetology
Bio 399	1-6	**	✓	3*		Independent Study
Bio 400	3		✓	3	2	Current Issues in Envir. & Pop. Biology
Bio 425	3		✓	3		Evolution
Bio 439	3		✓	3		Molecular Biology
Bio 440	4	✓	✓	2		Developmental Biology of Plants
Bio 460	3					Conservation Biology
Bio 497	6	**	✓	3		Senior Honors Thesis
Bio 498	1-12	**	✓	3*		Internship in Biology
Bio 499	1-6	**	✓	3*		Independent Study
Zoo 305	4	✓	✓			Human Anatomy and Physiology I
Zoo 306	4	✓	✓			Human Anatomy and Physiology II
Zoo 320	3		✓			General Physiology
Zoo 321	1	✓	✓			General Physiology Laboratory
Zoo 330	4	✓	✓			Invertebrate Zoology
Zoo 340	4	✓	✓	2	2	Vertebrate Zoology
Zoo 370	4	✓	✓	2	2	Comparative Anatomy
Zoo 373	4	✓	✓	2		Embryology
Zoo 375	3	✓	✓			Entomology
Zoo 376	3	✓	✓			Ornithology
Zoo 380	3		✓	2		Ecological Physiology
Zoo 384	4	✓	✓	2	2	Mammalogy
Zoo 385	3	✓	✓			Field Mammalogy
Zoo 399	1-3	**	✓	3*		Independent Study
Zoo 405	3	✓	✓			Limnology
Zoo 440	3	✓	✓	2		Ichthyology
Zoo 490	3		✓	3	3	Seminar
Zoo 497	3-6	**	✓	3*		Problems in Zoology
Zoo 497	3	✓	✓	3	3	Zoo Biology
Zoo 498	1-12	**	✓	3*		Internship in Zoology
Zoo 499	1-6	**	✓	3*		Independent Study

\* May satisfy level 3 with advisor's approval

\*\* Depends on nature of course or project

**Biology Problems Courses:** (others may also be available)

Course	Hrs	Lab?	Level 3 Writing	Level 3 Oral Com.	Title
Bio 492	3	✓	✓	✓	Aquatic Ecology
Bio 492	3	✓	✓	✓	Behavioral Biology
Bio 492	3	✓	✓	✓	Biotechnology
Bio492	3	✓	✓	✓	Conservation Genetics
Bio 492	3	✓			Ecological Techniques
Bio 492	3		✓	✓	Evolution & Education
Bio 492	3	✓	✓	✓	Field Ecology
Bio 492	3	✓	✓	✓	Field Herpetology
Bio 492	3	✓	✓	✓	Molecular Genetics
Bio 492	3	✓	✓	✓	Plant Physiology
Bio 492	3	✓	✓	✓	Pollution & Plant Development
Bio 492	3	✓	✓	✓	Toxic Algal Blooms
Bio 492	3	✓	✓	✓	Zoo Data Analysis

**Cognate Courses**

Course	Hrs	Title
Che 111	4	General Chemistry I
Che 212	4	General Chemistry II
Che 230	3	Introductory Organic Chemistry
Che 230L	1	Introductory Organic Chemistry Lab
Che 331	4	Organic Chemistry I
Che 332	4	Organic Chemistry II
Che 360	3	Introductory Biochemistry
Che 360L	1	Introductory Biochemistry Lab
Phy 111	4	College Physics I
Phy 212	4	College Physics II
Mat 158	3	Introduction to Statistics A
Mat 179	3	Measuring Life (Statistics for Biological Science Majors)
Mat 210	4	Calculus I
Mat 220	4	Calculus II
Mat 258	3	Introduction to Statistics B