

THE UNIVERSITY OF RHODE ISLAND

Wildlife and Conservation Biology
EL_WCB_BS
 120 Credits Total
web.uri.edu/nrs/

Student: _____
 Student ID: _____
 Advisor: _____

General Education Guidelines: General education is 40 credits. Each of the twelve outcomes (A1-D1) must be met by at least 3 credits. A single course may meet more than one outcome, but cannot be double counted towards the 40 credit total. At least one course must be a Grand Challenge (G). No more than twelve credits can have the same course code (note- HPR courses may have more than 12 credits). General education courses may also be used to meet requirements of the major or minor when appropriate.

LIST COURSES THAT MEET GENERAL EDUCATION:

| General Education Credit Count | | | | | | |
|---|--------|-------|--|----------------------|--------|-------|
| At least 40 credits, no more than 12 credits with the same course code | | | | | | |
| Course | Credit | Grade | | Course | Credit | Grade |
| *NRS100 | 3 | | | | | |
| *BIO101 | 3 | | | | | |
| *BIO103 | 1 | | | | | |
| *BIO102 | 3 | | | | | |
| *BIO104 | 1 | | | | | |
| *CHM103 | 3 | | | | | |
| *MTH131 | 3 | | | | | |
| *EEC105 | 3 | | | | | |
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| | | | | Total Gen Ed Credits | | |

LIST COURSE AS EACH OUTCOME IS MET:

| General Education Outcome Audit | |
|---|---------|
| | Course |
| KNOWLEDGE | |
| A1. STEM | *NRS100 |
| A2. Social & Behavioral Sciences | *EEC105 |
| A3. Humanities | |
| A4. Arts & Design | |
| COMPETENCIES | |
| B1. Write effectively | |
| B2. Communicate effectively | |
| B3. Mathematical, statistical, or computational strategies | *MTH131 |
| B4. Information literacy | |
| RESPONSIBILITIES | |
| C1. Civic knowledge & responsibilities | |
| C2. Global responsibilities | |
| C3. Diversity & Inclusion | |
| INTEGRATE & APPLY | |
| D1. Ability to synthesize | |
| GRAND CHALLENGE | |
| G. At least one course of your 40 credits is an approved "G" course (NRS330G recommended - A1, C2, G) | |

NOTE: BECAUSE MOST COURSES MEET MORE THAN ONE OUTCOME, YOUR OUTCOME AUDIT MIGHT BE COMPLETED BEFORE YOU REACH YOUR 40 CREDITS. HOWEVER, YOU MUST STILL COMPLETE 40 CREDITS OF GENERAL EDUCATION

*course fulfills general education and a major requirement

Transfer out of University College for Academic Success Requirement: Must have completed at least 30 credits with a minimum cumulative 2.0 GPA, as well as a grade of C or better in BIO 101/103, 102/104, and NRS 100.

Advising Notes: _____

THE UNIVERSITY OF RHODE ISLAND

Wildlife & Conservation Biology

EL_WCB_BS

120 Earned Credits Total

Student: _____

Student ID: _____

Advisor: _____

ABOUT THE BS in WILDLIFE & CONSERVATION BIOLOGY:

Students enrolled in the Wildlife & Conservation Biology major study a combination of the natural sciences and principles of managing wildlife populations and their habitats. This major is one of very few in the United States that fulfills the educational requirements for certification as an Associate Wildlife Biologist by The Wildlife Society, the international organization for professionals in the wildlife field. It also provides an excellent foundation for graduate school. The URI Student Chapter of The Wildlife Society is heavily involved with career-related activities. web.uri.edu/nrs/wildlife-and-conservation-biology/.

REVIEW YOUR PROGRAM REQUIREMENTS

| Intro to URI & NRS (2 credits) | | | |
|---|----------|---------|-------|
| Course | Semester | Credits | Grade |
| URI 101 | | 1 | |
| NRS 101 | | 1 | |

| Intro. Professional Courses (19 credits) | | | |
|---|----------|---------|-------|
| Course | Semester | Credits | Grade |
| BIO 262 | | 4 | |
| *EEC 105 | | 3 | |
| *NRS 100 | | 3 | |
| NRS 200 | | 1 | |
| NRS 212 | | 4 | |
| NRS 223 | | 4 | |

| Basic Sciences (22-23 credits) | | | |
|---------------------------------------|----------|---------|-------|
| Course | Semester | Credits | Grade |
| *BIO 101 | | 3 | |
| *BIO 103 | | 1 | |
| *BIO 102 | | 3 | |
| *BIO 104 | | 1 | |
| *CHM 103 | | 3 | |
| CHM 105 | | 1 | |
| CHM 124 | | 3 | |
| CHM 126 | | 1 | |
| *MTH 131 | | 3 | |
| STA 308 (4) Or STA 409 (3) | | 3-4 | |

| Free Electives | | | |
|--|----------|---------|-------|
| Courses taken beyond the requirements of the major and general education to reach the 120 credits required for graduation. | | | |
| Course | Semester | Credits | Grade |
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| Concentration Courses (at least 22 credits) | | | |
|---|----------|---------|-------|
| Must include at least 12 credits from NRS | | | |
| <i>Required Concentration (13 - 14 credits)</i> | | | |
| Course | Semester | Credits | Grade |
| NRS 305 | | 3 | |
| NRS 309 | | 3 | |
| NRS 406 (4) or NRS 407 (3) | | 3-4 | |
| BIO 323 | | 4 | |
| <i>Additional Concentration Courses (9 -11 credits)</i> | | | |
| <i>**See approved Concentration Course List</i> | | | |
| Course | Semester | Credits | Grade |
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| Supporting Electives (at least 24 credits) | | | |
|--|----------|---------|-------|
| Must include at least 6 credits from NRS. | | | |
| **See approved Supporting Elective list | | | |
| Courses may be selected from Concentration courses or from Supporting Electives (see approved lists). Students interested in a career as a Wildlife Biologist with the federal government should include 3 credits of botany. Students interested in becoming a Certified Wildlife Biologist should include 3 credits in botany, 6 credits in zoology, 6 credits in resources policy or planning, and 6 credits in communication. Up to 12 credits of experiential learning courses may be taken. A maximum of 10 credits of exp. learning courses may be used for Concentration credit (letter grade only) and up to 12 credits of exp. learning courses may be used for Suppt. Electives (Letter Grade or S/U). Senior Colloquium (NRS 480, 2 cr.) is strongly recommended. | | | |
| Course | Semester | Credits | Grade |
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*Courses approved for general education.

Minimum 2.0 GPA required in major for graduation.

Minimum 2.0 cumulative GPA required for graduation.

B.S. Wildlife & Conservation Biology - Effective Fall 2019
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| Approved Concentration Courses (9 - 11 credits) | | |
|---|---|--|
| Course (credits) | If seeking federal wildlife biologist (GS-486) job | If seeking TWS Wildlife Biologist Certification |
| NRS 304 Field Ornithology (3) | X ¹ | X ¹ |
| NRS 324 Mammalogy (4) | X ¹ | X ¹ |
| *NRS 330G The Biodiversity Crisis (3) <i>A1, C2, G</i> | | |
| NRS 401: Foundations in Restoration Ecology (4) | | |
| NRS 402: Quantitative Wildlife Ecology (3) | | X ² |
| NRS 403: Quantitative Wildlife Ecology Field Investigations (1) | | |
| NRS 406: Wetland Wildlife Management (4) | | |
| NRS 407: Endangered Species Conservation (3) | | |
| NRS 409 Concepts in GIS and Remote Sensing (4) | | |
| NRS 410: Fundamentals of GIS (3) | | |
| NRS 415: Remote Sensing of the Environment (3) | | |
| NRS 417 Herpetology (4) | X ¹ | X ¹ |
| NRS 419: Field experience in Herpetology (1) | | |
| NRS 423: Wetland Ecology (4) | | |
| NRS 475: Coral reef Conservation (3) | | |
| NRS 491/492: NRS special projects (1-3) ³ | | |
| NRS 497 Cooperative Internship (6 or 12) ³ | | |
| NRS 516 Remote Sensing in Natural Resources Mapping (3) | | X ² |
| NRS 520: Quantitative Tech. in Natural Resource Research (3) | | X ² |
| NRS 522 Advanced GIS Analysis Of Environmental Data (3) | | X ² |
| NRS 533: Landscape Pattern And Change (3) | | |
| BIO 366: Vertebrate Biology (3) | X ¹ | X ¹ |
| BIO 455: Marine Ecology (3) | | |
| BIO 467 Animal Behavior (3) | X ¹ | X ¹ |
| BIO 480: Community Ecology (3) | | |
| BIO 485: Salt Marsh Ecology (4) | | |
| *CSC 201: Introduction to Computer Programming (4) <i>B3</i> | | X ² |
| *MTH 141: Introductory Calculus With Analytic Geometry (4) <i>A1,B3</i> | | X ² |

¹ Select two of these five courses

² Select one of these six courses (NRS 402 recommended)

³ Maximum of 10 credits of experiential learning courses (letter grade courses only) can count for concentration credits

Note: Courses marked with an asterisk (*) can be used to satisfy major and general education requirements.

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WILDLIFE & CONSERVATION BIOLOGY APPROVED SUPPORTING ELECTIVES:

At least 24 credits taken from the following categories, of which **at least 6 credits** must be NRS courses, based on certification guidelines established by The Wildlife Society and federal government. Approved courses may change with availability or with approval of your advisor.

| Botany (3 credits)^{1,2} | Resource Policy, Administration, or Land Use Planning (6 credits)² |
|--|--|
| NRS 301 Forest Science (3) | |
| NRS 423 Wetland Ecology (4) | CPL 434 Intro. to Environmental Law (3) |
| NRS 425 Wetlands Field Investigations (1) | *MAF 100 Human Use Marine Environment (3) A2, C1 |
| NRS 445 Invasive Species (4) | MAF 120 New England & The Sea (3) |
| NRS 485 Salt Marsh Ecology (4) | *MAF 220 Intro. Marine & Coastal Law (3) A2, C1 |
| BIO 311 Plant Structure & Development (4) | *MAF 312 International Politics of the Ocean (3) C2, D1 |
| BIO 321 Plant Diversity (4) | MAF 461 Coastal Zone Management (3) |
| BIO 346 Plant Physiology (3) | MAF 471 Critical Island Studies (3) |
| BIO 352 General Genetics (4) | MAF 484 Env. Analysis & Policy Coastal Mgt. (3) |
| BIO 353 Genetics Laboratory (1) | *NRS 234G Introduction to Water Resources (3) A1, G |
| BIO 365 Biology of Algae (4) | *NRS 300 Issues in Global Sustain.Dev. (3) A2, C2 |
| BIO 418 Ecology of Marine Plants (4) | *NRS 330G The Biodiversity Crisis (3) A1, C2, G |
| Zoology (6 credits)² | NRS 401 Foundations in Restoration Ecology (4) |
| NRS 304 Field Ornithology (3) | NRS 424 Wetlands & Land Use (4) |
| NRS 324 Mammalogy (4) | *NRS 450G Soil Land Use and the Environment (3) D1, G; and |
| NRS 350 Field Entomology & Taxonomy (3) | *NRS452G Soil, Water, and Land Use Investigation (1) D1, G |
| NRS 388 Biology of Bees & Pollination Ecology (3) | Communications (6 credits)² |
| NRS 417 Herpetology (4) | COM 202 Public Speaking (3) |
| NRS 419 Field Experience in Herpetology (1) | COM 208 Argumentation and Debate (3) |
| NRS 505 Biology & Man.Migratory Birds (2) | COM 210 Persuasion: The Rhetoric of Infl. (3) |
| NRS 534 Ecol. Fragmented Landscapes (2) | COM 221 Interpersonal Communication (3) |
| NRS 538 Physiological Ecology (3) | COM 251 Small Group Communication (3) |
| BIO 201 General Animal Physiology (3) | COM 310 Topics in Communication (3) |
| BIO 272 Intro Evolution (4) | *JOR 110 Introduction to Mass Media (3) A3, C1 |
| BIO 286 Humans, Insects, and Disease (3) | JOR 220 Media Writing (3) |
| BIO 302 Animal Development (4) | JOR/PRS 340 Public Relations (3) |
| BIO 354 Invert. Zoology (4) | NRS442 Environmental Crisis Communication (3) |
| BIO 355 Marine Invert. of Southern N.E. (3) | *WRT 201 Argument. & Persuasive Texts (3) B1, B4 |
| BIO 360 Marine Biology (4) | WRT 235 Writing in Electronic Env. (4) |
| BIO/ENT 385 Introduction to Entomology (3) | *WRT 332 Technical Writing (3) B1, B2 |
| | *WRT 334 Science Writing (3) B1, B2 |
| | WRT 533 Grad. Writing in Life Sciences (3) |
| Experiential Learning Courses | Other Approved Supporting Electives |
| Up to 12 credits of Experiential Learning Courses may be taken. A maximum of 10 credits of exp. learning courses may be used for concentration credit (letter grade only) and up to 12 credits of exp. learning courses may be used as supporting lectives (letter grade or S/U) | |
| NRS 395 Research Apprenticeship (1-3) S/U only | *GEO 103 Understanding the Earth (4) A1, B4 |
| NRS 397 Internship (1-6) S/U only | *MTH 103 Applied Precalculus (3) or *MTH 111 Precalculus (3) A1, B3 |
| NRS 491/492: NRS special projects (1-3) | NRS 480 Colloquium (2) - strongly recommended |
| NRS 495 Advanced Apprenticeship (3) S/U only | |
| NRS 497 Cooperative Internship (6 or 12) | |
| NRS 498 Teaching Practicum (1-3) S/U only | |

¹ Select if considering federal biologist (GS-486) position

² Select courses from these lists (Policy, Zoology, Communications) if considering TWS Wildlife Certification

Note: Courses marked with an asterisk (*) can be used to satisfy major and general education requirements.

B.S. Wildlife & Conservation Biology - Effective Fall 2019
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SAMPLE Four-Year Plan

Freshman Year *Fall* Semester

| Course Code | Description | Cr |
|----------------------|--|--------------|
| *NRS 100 | Natural Resource Conservation | 3 |
| NRS 101 | Freshman Inquiry into NRS | 1 |
| URI 101 | Planning for Academic Success | 1 |
| *BIO 101/103 | Principles of Biology I/ Lab | 4 |
| *MTH103, 111, or 131 | Applied Precalculus, Precalculus, or Applied Calculus (based on placement) | 3 |
| | *General Education Course | 3-4 |
| | | 15-16 |

Freshman Year *Spring* Semester

| Course Code | Description | Cr |
|---------------------------|---|--------------|
| NRS 223 | Conservation Biology | 4 |
| *BIO 102/104 | Principles of Biology II/ Lab | 4 |
| *CHM 103/105 | Introductory Chemistry/ Lab | 4 |
| *MTH 131, or *General Ed. | Applied Calculus, or General Education Course | 3-4 |
| | | |
| | | |
| | | 15-16 |

Note: MTH131 is required for WCB majors. Math placement determines if a prerequisite is needed (MTH103 or 111).

Year 1 Milestones: Complete 30 credits with a cumulative gpa of 2.0 or higher. Transfer from UC to CELS. NRS100 & NRS223 (offered fall and spring). Grades of C or higher required in BIO101, 102, 103, 104, NRS100. Consider a summer internship.

Sophomore Year *Fall* Semester

| Course Code | Description | Cr |
|-------------|------------------------------|--------------|
| NRS 200 | Seminar in Natural Resources | 1 |
| NRS 212 | Intro to Soil Science | 4 |
| BIO 262 | Introductory Ecology | 4 |
| *EEC 105 | Intro to Resource Economics | 3 |
| | *General Education Course | 3-4 |
| | | 15-16 |

Sophomore Year *Spring* Semester

| Course Code | Description | Cr |
|-------------|---------------------------------------|--------------|
| NRS 305 | Principles of Wildlife Ecology & Mgt. | 3 |
| CHM 124/126 | Intro. to Organic Chemistry/Lab | 4 |
| STA 308 | Introductory Statistics | 4 |
| | *General Education Course | 3 |
| | Free Elective | 3 |
| | | 15-17 |

Year 2 Milestones: Complete 60 credits with a cumulative gpa of 2.0 or higher. NRS200 & NRS212 (offered fall only), NRS305 (offered spring only). BIO262 should be completed sophomore year. Meet with faculty advisor to plan jr/sr year courses and discuss internship/research/study abroad opportunities.

Junior Year *Fall* Semester

| Course Code | Description | Cr |
|--------------------|---|--------------|
| BIO 323 | Field Botany & Taxonomy | 4 |
| NRS 304 or BIO 366 | Field Ornithology Vertebrate Biology | 3 |
| NRS324 | Mammology | 4 |
| | NRS Supporting Elective | 3-4 |
| | *General Education Course | 3 |
| | | 17-18 |

Junior Year *Spring* Semester

| Course Code | Description | Cr |
|--------------------|--|--------------|
| NRS 309 | Wildlife Management Tech. | 3 |
| NRS 406 or NRS 407 | Wetland Wildlife Mgt. (4); or Endangered Species Conservation (3) | 3-4 |
| | NRS Supporting Elective | 3-4 |
| | *General Education Course | 3 |
| | Free Elective | 3 |
| | | 16-17 |

Year 3 Milestones: Complete 90 credits with a cumulative gpa of 2.0 or higher. BIO323 (offered fall & summer only), NRS 309 (offered spring only). Meet with faculty advisor to plan senior year courses, discuss internship/research opportunities, and prepare Intent to Graduate Application for fall submission.

Senior Year *Fall* Semester

| Course Code | Description | Cr |
|--------------------|---|--------------|
| NRS 304 or BIO 366 | Field Ornithology Vertebrate Biology | 3 |
| | NRS Supporting Elective | 3-4 |
| | NRS Supporting Elective | 3-4 |
| | Free Elective | 3 |
| | NRS Concentration | 3-4 |
| | | 15-17 |

Senior Year *Spring* Semester

| Course Code | Description | Cr |
|--------------------|--|--------------|
| NRS 406 or NRS 407 | Wetland Wildlife Mgt. (4); or Endangered Species Conservation (3) | 3-4 |
| NRS 417 | Herpetology | 4 |
| | NRS Supporting Elective | 3-4 |
| NRS 402/403 | Quantitative Wildlife Ecology/Field Invest. | 4 |
| | NRS Internship | |
| | | 15-17 |

Total Credits to Graduate = 120

Year 4 Milestones: Complete all remaining courses and requirements. NRS406 and 407 (offered spring only). Turn in Intent to Graduate packet fall semester. Minimum of 120 earned credits with a cumulative gpa of 2.0 or higher; and a minimum 2.0 gpa in major concentration courses.

NOTE: Visit <http://web.uri.edu/nrs/undergraduate-programs/> for a list of NRS fall & spring courses & confirm with your advisor.

Effective: 2019 - 2020