

Courses and Curriculum Page:

Navigating EEOB and EEOB-Affiliate Courses

Regardless of the specific concentration selected, students with a strong interest in ecology, evolution and organismal biology should consider how best to utilize the EEOB and EEOB-affiliated courses. For students who have a core interest in these topics, we recommend taking all four of EEOB's foundational courses (Diversity of Life, Ecology, Evolutionary Biology and Statistical Analysis of Biological Data). Students could consider substituting alternative courses with strong overlapping content for these foundational courses when appropriate (such as an ecology course taken during a study abroad or a statistical analysis course offered by another department). For students with a strong interest in EEOB topics, we recommend taking at least one course in each of the four focal areas of EEOB, listed in the section below. Ideally, students would take additional courses that matched their interests to build an area of strength and expertise in a particular focal area. Finally, whenever possible, we recommend that students consider doing a senior thesis, which involves faculty-mentored research.

In summary, a student who strongly engaged with the EEOB curriculum might take all 4 of EEOB's foundational courses, 3 or 4 courses within their preferred focal area, one course from each of the other three focal areas and conduct a senior thesis, which involves two semesters of independent study. This would work out to a total of 12 or 13 EEOB and EEOB-affiliated courses. Note that this is not a "concentration", but instead a course of study that maximizes EEOB content and which would prepare a student who intended to pursue graduate school in EEOB or a related field.

EEOB Foundational Courses:

Biol 0210 – Diversity of Life

Biol 0420 - Ecology

Biol 0480 - Evolutionary Biology

Biol 0495 – Statistical Analysis of Biological Data

EEOB Focal Area 1 - Ecological Topics and Conservation:

Biol 1470 – Conservation Biology

Biol 1515 – Conservation in the Genomics Age

ENVS 1775 – Biogeography

EEOB Focal Area 2 - Organismal Diversity and Evolution:

Biol 0380 – Ecology and Evolution of Infectious Disease

Biol 0410 – Invertebrate Zoology

Biol 0430 – Evolution of Plant Diversity

Biol 0490D – Rhode Island Flora (Sophomore Seminar)

ENVS 0070H - The Plants and Animals of College Hill (First-Year Seminar)

EEOB Focal Area 3 - Animal Behavior and Physiology:

Biol 0450 – Evolutionary Behavioral Ecology

Biol 0490 – Sensory Biology

Biol 1505 – Environmental Physiology

Biol 1155 – Hormones and Behavior

EEOB Focal Area 4 - Genetics, Genomics and Computational Approaches:

Biol 1430 – Foundations of Population Genetics

Biol 1435 – Computational Methods

Biol 1465 – Human Population Genomics

EEOB Course-Pathways Through the Biology Degree Requirements

Students interested in maximizing their exposure to EEOB courses while completing the requirements for a degree in Biology could follow one of the three course pathways that we describe below. These pathways meet all the biology course requirements for the AB or ScB concentrations in Biology. The AB degree in Biology requires two fewer biology courses than the ScB degree, so students pursuing the AB following the paths below could reduce this course of study by following Path 1 and taking just 1 instead of 3 courses from within EEOB Focal Area 1. Note that these pathways do not include the additional prerequisite or background courses in math and natural sciences required for these degrees, which are described on the [Biology Concentration page](#).

Path 1 - Student interested in Ecology or Conservation Biology

EEOB Foundational Courses (4):

Biol 0210 – Diversity of Life

Biol 0420 - Ecology

Biol 0480 - Evolutionary Biology

Biol 0495 – Statistical Analysis of Biological Data

EEOB Focal Area 1 - Ecological Topics and Conservation (3):

Biol 1470 – Conservation Biology

Biol 1515 – Conservation in the Genomics Age

ENVS 1775 – Biogeography

EEOB Focal Area 2 - Organismal Diversity and Evolution (1):

Biol 0410 – Invertebrate Zoology or Biol 0430 – Evolution of Plant Diversity or Biol 0490D – Rhode Island Flora (Sophomore Seminar) or ENVS 0070H - The Plants and Animals of College Hill (First-Year Seminar)

EEOB Focal Area 3 - Animal Behavior and Physiology (1):

Biol 0450 – Evolutionary Behavioral Ecology or Biol 0490 – Sensory Biology or Biol 1505 – Environmental Physiology or Biol 1155 – Hormones and Behavior

EEOB Focal Area 4 - Genetics, Genomics and Computational Approaches (1):

Biol 1430 – Foundations of Population Genetics or Biol 1435 – Computational Methods or Biol 1465 – Human Population Genomics

Independent Study/Senior Thesis (2):

Biol 1950

Biol 1960

Additional Biology Courses to Meet Biology ScB Requirements (1):

Biol 0800 - Principles of Physiology if the student's plan doesn't include either Biol 0410 or Biol 1155

Otherwise any single additional Biol class will complete the required number of biology courses

This pathway of courses assumes that students have tested (with AP/IB credit) out of Biol 0200. Students who have not done so must take Biol 0200. Students taking Biol 0200 would not need an additional biology credit, as per the "additional biology courses" section above, but would still need to take Biol 0800 if they hadn't had one of the other two courses specified above.

Path 2 - Student interested in Animal Behavior

EEOB Foundational Courses (4):

Biol 0210 – Diversity of Life

Biol 0420 - Ecology

Biol 0480 - Evolutionary Biology

Biol 0495 – Statistical Analysis of Biological Data

EEOB Focal Area 1 - Ecological Topics and Conservation (1):

Biol 1470 – Conservation Biology or Biol 1515 – Conservation in the Genomics Age or ENVS 1775 – Biogeography

EEOB Focal Area 2 - Organismal Diversity and Evolution (1):

Biol 0410 – Invertebrate Zoology or Biol 0430 – Evolution of Plant Diversity or Biol 0490D – Rhode Island Flora (Sophomore Seminar) or ENVS 0070H - The Plants and Animals of College Hill (First-Year Seminar)

EEOB Focal Area 3 - Animal Behavior and Physiology (4):

Biol 0450 – Evolutionary Behavioral Ecology

Biol 0490 – Sensory Biology

Biol 1505 – Environmental Physiology

Biol 1155 – Hormones and Behavior

EEOB Focal Area 4 - Genetics, Genomics and Computational Approaches (1):

Biol 1430 – Foundations of Population Genetics or Biol 1435 – Computational Methods or Biol 1465 – Human Population Genomics

Independent Study/Senior Thesis (2):

Biol 1950

Biol 1960

Additional Biology Courses to Meet Biology ScB Requirements (0 or 1):

Biol 0500 - Cell and Molecular Biology or Biol 0470 - Genetics if a student's plan doesn't include Biol 1515 - Conservation Genomics

This pathway of courses assumes that students have tested (with AP/IB credit) out of Biol 0200. Students who have not done so must take Biol 0200.

Path 3 - Student interested in Human Evolution and Genetics

EEOB Foundational Courses (4):

Biol 0210 – Diversity of Life

Biol 0420 - Ecology

Biol 0480 - Evolutionary Biology

Biol 0495 – Statistical Analysis of Biological Data

EEOB Focal Area 1 - Ecological Topics and Conservation (1):

Biol 1470 – Conservation Biology or Biol 1515 – Conservation in the Genomics Age or ENVS 1775 – Biogeography

EEOB Focal Area 2 - Organismal Diversity and Evolution (1):

Biol 0410 – Invertebrate Zoology or Biol 0430 – Evolution of Plant Diversity or Biol 0490D – Rhode Island Flora (Sophomore Seminar) or ENVS 0070H - The Plants and Animals of College Hill (First-Year Seminar)

EEOB Focal Area 3 - Animal Behavior and Physiology (1):

Biol 0450 – Evolutionary Behavioral Ecology or Biol 0490 – Sensory Biology or Biol 1505 – Environmental Physiology or Biol 1155 – Hormones and Behavior

EEOB Focal Area 4 - Genetics, Genomics and Computational Approaches (3):

Biol 1430 – Foundations of Population Genetics

Biol 1435 – Computational Methods

Biol 1465 – Human Population Genomics

Independent Study/Senior Thesis (2):

Biol 1950

Biol 1960

Additional Biology Courses to Meet Biology ScB Requirements (1 or 2):

Biol 0500 - Cell and Molecular Biology or Biol 0470 - Genetics if a student's plan doesn't include Biol 1515 - Conservation Genomics

Biol 0800 - Principles of Physiology if a student's plan doesn't include either Biol 0410 or Biol 1155

If both of the above requirement are already met than any single additional Biol class will complete the required number of biology courses

This pathway of courses assumes that students have tested (with AP/IB credit) out of Biol 0200. Students who have not done so must take Biol 0200. Students taking Biol 0200 would not need an additional biology credit, as per the "additional biology courses" section above, but would still need to take the two classes specified above if they hadn't take the specific classes that meet those requirements.