

# INTEGRATIVE BIOLOGY (IBIO)

## **IBIO\*3100 Interpreting Biodiversity I Winter Only (LEC: 1.5, LAB: 3) [0.50]**

This is the first of two courses that explore global and local issues in biodiversity as a capstone experience for biodiversity majors. The overall goal of the course is to provide opportunities for BIOD students to engage the application of their knowledge and skills to complex problems and issues involving "real-life" biodiversity projects within academic, government, or industry spheres. The learning outcomes include the development of key skills for interpreting biodiversity and writing a research proposal and work plan that will be executed in IBIO\*4100.

**Prerequisite(s):** 12.00 credits

**Restriction(s):** Enrolment restricted to BSCH.BIOD majors.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

## **IBIO\*4100 Interpreting Biodiversity II Fall Only (LEC: 1.5, LAB: 3) [1.00]**

This is the second of two courses that explore global and local issues in biodiversity as a capstone experience for biodiversity majors. The overall goal of the course is to provide opportunities for students to engage the application of their knowledge and skills to complex problems and issues involving "real-life" biodiversity projects within academic, government, or industry spheres. The learning outcomes include the application of key skills for interpreting biodiversity, the collection and analysis of biodiversity data. This student centred experience will culminate with an oral presentation and written report to the "clients", classmates and instructors.

**Prerequisite(s):** IBIO\*3100

**Restriction(s):** Enrolment restricted to BSCH.BIOD majors.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

## **IBIO\*4500 Research in Integrative Biology I Fall and Winter (LAB: 12) [1.00]**

The student will undertake an independent research project of a practical or theoretical nature that relates either to organismal biology or the teaching of organismal biology and is conducted under the supervision of a faculty member. Students must make arrangements with both a faculty supervisor and the course coordinator at least one semester in advance. A departmental registration form must be obtained from the course coordinator and submitted no later than the second class day of the semester in which the project is to be completed.

**Prerequisite(s):** 12.00 credits

**Restriction(s):** Minimum cumulative average of 70%. Instructor consent required.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

## **IBIO\*4510 Research in Integrative Biology II Fall and Winter (LAB: 12) [1.00]**

The student will undertake an independent research project of a practical or theoretical nature that relates either to organismal biology or the teaching of organismal biology and is conducted under the supervision of a faculty member. Students must make arrangements with both a faculty supervisor and the course coordinator at least one semester in advance. A departmental registration form must be obtained from the course coordinator and submitted no later than the second class day of the semester in which the project is to be completed.

**Prerequisite(s):** IBIO\*4500

**Restriction(s):** Minimum cumulative average of 70%. Instructor consent required.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

## **IBIO\*4521 Thesis in Integrative Biology Fall Only (LAB: 12) [1.00]**

This course is the first part of the two-semester course IBIO\*4521/2. This course is a two-semester (F,W) undergraduate project in which students conduct a comprehensive, independent research project in organismal biology under the supervision of a faculty member in the Department of Integrative Biology. Projects involve a thorough literature review, a research proposal, original research communicated in oral and poster presentations, and in a written, publication quality document. This two-semester course offers students the opportunity to pursue research questions and experimental designs that cannot be completed in the single semester research courses. Students must make arrangements with both a faculty supervisor and the course coordinator at least one semester in advance. A departmental registration form must be obtained from the course coordinator and submitted no later than the second class day of the fall semester. This is a two semester course offered over consecutive semesters F-W. When you select this course, you must select IBIO\*4521 in the Fall semester and IBIO\*4522 in the Winter semester. A grade will not be assigned to IBIO\*4521 until IBIO\*4522 has been completed.

**Prerequisite(s):** 12.00 credits

**Restriction(s):** Normally a minimum cumulative average of 70%. Permission of course coordinator.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

## **IBIO\*4522 Thesis in Integrative Biology Winter Only (LAB: 12) [1.00]**

This course is the second part of the two-semester course IBIO\*4521/2. This course is a two-semester (F,W) undergraduate project in which students conduct a comprehensive, independent research project in organismal biology under the supervision of a faculty member in the Department of Integrative Biology. Projects involve a thorough literature review, a research proposal, original research communicated in oral and poster presentations, and in a written, publication quality document. This two-semester course offers students the opportunity to pursue research questions and experimental designs that cannot be completed in the single semester research courses. Students must make arrangements with both a faculty supervisor and the course coordinator at least one semester in advance. A departmental registration form must be obtained from the course coordinator and submitted no later than the second class day of the fall semester. This is a two semester course offered over consecutive semesters F-W. When you select this course, you must select IBIO\*4521 in the Fall semester and IBIO\*4522 in the Winter semester. A grade will not be assigned to IBIO\*4521 until IBIO\*4522 has been completed.

**Prerequisite(s):** IBIO\*4521

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph

**IBIO\*4600 Integrative Marine and Freshwater Research Fall Only (LEC: 3, LAB: 3) [1.00]**

In this course, students will integrate theory and analytical methods to address common problems in marine and freshwater biology. Particular emphasis will be placed on the process of inquiry including: development of research problems, data retrieval from existing literature, design and interpretation of experiments, sampling, statistical inference, and written and oral presentation.

**Prerequisite(s):** BIOL\*3450, (STAT\*2040 or STAT\*2230), (ZOO\*3210 or ZOO\*3610)

**Restriction(s):** Restricted to students in BSCH.MFB.

**Department(s):** Department of Integrative Biology

**Location(s):** Guelph