# **COURSE SYLLABUS**

COURSE TITLE: BIOL 466.3 - Aquatic Insects TERM: Fall 2014

COURSE CODE: CRN 86664 DELIVERY: Lecture/Lab/Field Trips

COURSE CREDITS: 3 cu START DATE: September 5, 2014

CLASS SECTION: 01 LAB LOCATION: 213 Biology Bldg.

CLASS LOCATION: 213 Biology Bldg. LAB TIME: 1:30 Fridays

**CLASS TIME:** 1:30 – 4:00, Mondays

**WEBSITE**: further information accessed through Course Tools

LECTURER: D.M. Lehmkuhl LABS: D.H. Smith

Rm. 214 Biology Rm. 150 Biology 306-966-4408 306-966-4415

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#### COURSE DESCRIPTION:

Lecture on aquatic insects based on morphology, taxonomy, identification, also microscope work, library and field work, and special reports by students. Demonstration material will be examined in the lectures/labs. Students will make a large personal collection, identified and curates. The collection is a major part of the course.

**PREREQUISITES:** BIOL 121 and 224 (formerly BIOL 203) and BIOL 228 (formerly BIOL 253); or permission of the instructor.

### **LEARNING OUTCOMES:**

By the completion of this course, students will be expected to:

- 1. Become familiar with the diversity of aquatic insects of Saskatchewan and North America;
- 2. Be able to recognize Orders and identify with confidence Families and selected General using appropriate taxonomic keys;
- 3. Develop skills in field collecting and sampling;
- 4. Learn library search skills and be familiar with major publications.

#### **COURSE OVERVIEW:**

LAB: Weekly 3 hour labs will be devoted to identification of student-collected specimens and supplementary material to build a personal collection, which is a major requirement of the course.

Lecture/Lab periods: involves lectures, demonstration materials, reference publications and special techniques (i.e. slide making, photography).

Students will each present a project or report on a topic of special interest to themselves.

### **CLASS SCHEDULE:**

Exact dates of field trips will depend on weather, vehicle availability and class progress.

Weekly lab periods will be devoted to keying and identification of specimens for the individual required collection. (Fridays, 1:30 – 4:30 p.m.)

**Lecture/Lab periods** (Mondays, 1:30 – 4:30) will consist of the following:

- Introductory lecture on objectives, requirements;
- Field trips, 3 or 4, dates dependent on weather, vehicle availability & class progress;
- Lectures on Saskatchewan biodiversity, literature and sources relevant to Western Canada;
- Demonstration material of special taxonomic interest;
- Instruction on presentation of microscope slides;
- Projects on photographic technicques;
- Student discussion.

## Important Dates - 2014

September 3, 2014 First Day of Classes (Wednesday)

- October 13, 2014 Thanksgiving (Monday)

- November 10-14, 2014 MIDTERM BREAK

- December 5, 2014 Last Day of Classes (Friday)

### **REQUIRED RESOURCES:**

Readings/Textbooks: Aquatic Insects of North America, Fourth Edition, Merritt, Cummins &

Berg

# **EVALUATION OF REQUIRED COURSEWORK:**

Lecture & Laboratory

Oral Report<sup>1</sup> 10%

Student Collection of Insects<sup>2</sup> 40% (Due December 5, 2014)

Midterm Examination<sup>3</sup> 10% (October 27, 2014)

Final Examination<sup>4</sup> 40% (Date TBA)

<sup>1</sup>Oral Report: Must be completed by end of October.\*

<sup>2</sup>Collection: A collection gathered by each student, properly identified and curated, a minimum of

60 genera, preferably more. – Deadline for submission to Dr. Smith is December 5,

2014.

<sup>3</sup>Midterm Exam: The midterm will be a closed-book exam on identification of Orders

<sup>4</sup>Final Exam: The final exam will be an open book keying exam, including selected Families,

Genera and Species.

\* Suggested topics for Oral Report: (students should provide a short, approximately 3 page, bibliography and summary to other class members and their professors)

Aquatic insects and concept of Biodiversity (or distribution and Biogeography)

Special topic in physiology that relates specifically to aquatic insects

Classification and phylogeny within a particular taxon of aquatic insects

Insect faunas in unique habitats (saline lakes, tree holes, pitcher plants, interstitial environment, temporary ponds) Aquatic insects as pests of vectors of disease.

or an approved topic of your choice.

Alternative: Study of a taxonomic group (e.g. Culicidae) selected by the student preparation of microscope slides.

## **EXAMINATIONS WITH DISABILITY SERVICES FOR STUDENTS (DSS):**

Students registered with DSS may request alternative arrangements for mid-term and final examinations. Students must arrange such accommodations through DSS by the stated deadlines. Instructors shall provide the examinations for students who are being accommodated by the deadlines established by DSS.

#### **ACADEMIC HONESTY**

Academic honesty is a matter that the University and the Department of Biology take very seriously. Students must familiarize themselves with the rules regarding academic honesty. Ignorance of the rules regarding or the nature of academic dishonesty is not a defense against a charge. Potential punishments include expulsion from the University or revocation of a degree or diploma.

Many cases of plagiarism result from confusion or ignorance rather than from genuine intent to deceive. **Note, however, that these are not excuses**: "The critical consideration is the impression created in the mind of the others, not the subjective intent of the student. This determination involves an objective evaluation of the manuscript. No intent to deceive is required to establish plagiarism." (University Council policy on <u>Student Academic Misconduct</u>)

The <u>University Guidelines for Academic Conduct</u> describes the University's expectations for both student and faculty conduct.

The definition of academic dishonesty that follows is copied from the University of Saskatchewan Council's policy document on <u>Student Academic Misconduct</u>. **Note especially the definition of plagiarism.**