Aquatic Entomology
BIOL/FISH 665; offered every fall

Credits: 2, Letter grade
Prerequisites: Graduate standing or permission of instructor
Location: 207 Irving I
Meeting time: Wednesdays, Lecture 1-1:50p, Lab 2-5pm

Instructor information: Mark Wipfli, IAB
Office location: 138 Arctic Health
Office hours: T, R, 10-11am or by appt.
Telephone: 474-6654
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Course readings/materials: Aquatic Entomology, by W. Patrick McCafferty.

Supplementary readings: An Introduction to the Aquatic Insects of North America, by Merritt and Cummins.

Course description: 665 Aquatic Entomology 2 credit. Course content will focus on aquatic invertebrate taxonomy and ecology, particularly from Alaska streams and wetlands. There will be one or two organized field trips near campus early in the semester where students will learn field techniques for locating and collecting aquatic invertebrates. The remaining meetings will involve instruction on the identification of the important families (family-level taxonomy) of aquatic invertebrates, and their ecology and biology. Students will be required to develop their own aquatic invertebrate collections. Letter grades will be based on completeness and accuracy of collections, plus lab and lecture mid-term and final exams.

Course goals: Provide students with a working knowledge of the taxonomy (field and lab IDs to the Family level) and ecology of aquatic (wetland and stream) invertebrates, with special emphasis on invertebrates of Alaska systems. Specific learning outcomes – students will learn 1) where and how to collect aquatic insects, 2) how to identify larval aquatic insects to the family level, 3) learn how to identify Orders of adult aquatic insects, 4) how to prepare an aquatic insect collection, 5) habitat-taxa associations, and 6) family level functional feeding groups.

Instructional methods: One hour of lecture, three hours laboratory each week. Laboratory meetings will involve field trips, biological collections and taxonomy. Lectures before each lab period will teach key taxonomic characteristics, and invertebrate ecology and biology.

Course calendar: There will be one 1-hr lecture and one 3-hr lab per week. The first sessions of the term (weeks 1-4) will consist of an introductory session and field trip(s) where students will be taught invertebrate collecting techniques. The rest of the term students will learn to identify aquatic invertebrates to the Order and Family level.

Course policies: Attendance is required. Pre-excused absences are permitted.

Evaluation: Mid-term and final exams will be given in both lecture and lab. Letter grade will be determined from field collections (20%), and scores on four exams (20% each) (100 points each). Grading will be A+ >95%, A 92-94%, A- 90-91%, B+ 87-89%, B 84-86%, B- 80-83%, C+ 77-79%, C 74-76%, C- 70-73%, D+ 67-69%, D 64-66%, D- 60-63%, F <60%.

Support Services: Negotiated upon request.

Disabilities Services: The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. The instructor will work
with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities.