

Arizona State University West Campus  
**LSC 385—Invertebrate Zoology**  
**Fall 2008**

***Course Syllabus***

**Instructor:** Dr. Udo M. Savalli

**Office:** CLCC 116; 602-543-3750

**Office hours:** Tues, 2-4 pm, Wed 12-3 pm, or by appointment

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**Course web site:** <http://www.savalli.us> Then click on the LSC385 link.  
Also accessible via Blackboard

**Required Text & Supplies:** Pechenik, J.A. 2005. *Biology of the Invertebrates*, 5th ed.  
McGraw-Hill.  
Pencils for drawings.

**Class Meetings: Lecture:** MW 3:30-4:45, CLCC 104; **Lab:** M: 6:30-9:20<sup>†</sup>, CLCC 367

*†meeting time may be changed to an earlier time if there is universal consent*

**Course Description:** Characteristics, life cycles, adaptations, and evolution of the invertebrate animals flow; biogeochemical cycling; environmental relations; population dynamics.

**Prerequisites:** Bio 187 and Bio 188

| <b>Course Grading:</b>  |            |
|---|------------|
| Course grades will be based upon an average score of the following: |            |
| 3 Lecture Exams @ 100 pts each                                      | 300        |
| Comprehensive Final Exam  | 150        |
| Lecture assignments*  | 30         |
| Special project (see course web page)                               | 50         |
| 2 Lab Practical Exams @ 100 pts each                                | 200        |
| Mini Lab Practical  | 20         |
| Laboratory assignments & quizzes*                                   | 150        |
| <b>TOTAL</b>  | <b>900</b> |
| * Exact point values of assignments are subject to change.          |            |

| <b>Course Grades</b> will be based on the following scale: |    |
|--|----|
| 98 - 100%  | A+ |
| ≥93 - <98%   | A  |
| ≥90 - <93%   | A- |
| ≥88 - <90%   | B+ |
| ≥83 - <88%   | B  |
| ≥80 - <83%   | B- |
| ≥77 - <80%   | C+ |
| ≥70 - <77%   | C  |
| ≥60 - <70%   | D  |
| 0 - <60%   | E  |

**Lecture Exams** will be based on both the material presented in class and your readings. Exams will include multiple-choice, fill-in-the-blank, and short answer questions. **Lab Exams** will be a practical format (mostly fill-in/short answer) based on material observed in lab. Use or accessing of cell phones, PDAs and other electronic devices is strictly prohibited during exams.

**Missed Examinations:** Students missing exams or assignments will get a grade of 0 except for exceptional circumstances (such as severe illness or death in the immediate family; written documentation will be required). Unless the student can arrange to take a lecture exam before it is returned (usually the next class period), makeups (for excused absences only) will be given at a day and time determined by the instructor, but likely towards the end of the semester. Due to their nature, it is not possible to make up lab practical exams.

**Late Assignments:** Assignments are due at the *start of class* on the day indicated on the assignment or announced in class. Work turned in after the *due date and time* will be severely penalized and will not be accepted at all once assignments have been graded and returned.

**Attendance:** Attendance is essential to success in this class and absolutely required for labs. Students missing assignments or quizzes will not be able to make them up. It is the student's responsibility to obtain any missed lecture notes or materials

**Disruptive or distracting behavior** is not allowed. This includes talking (excluding questions and class discussion, of course), reading newspapers, snoring, working on a laptop, etc. It also includes arriving late or leaving class early. Students that disrupt the class may be asked to leave. **Be sure to turn off any cell phones before coming to class:** students whose cell phones ring or who are talking on a cell phone during class may be asked to leave; repeated offenses are subject to additional grade penalties. Students with special circumstances (e.g. sick family member) that requires phone access or leaving early should inform the instructor before class begins.

**Withdrawal Policy:** Students wishing to withdraw from the course must do so before Nov 2<sup>nd</sup>.

**Incomplete Policy:** An incomplete grade (I) will only be given to a student that has completed a substantial portion of the class with a grade of C or higher and who is unable to complete the course requirements due to illness or extenuating non-academic circumstances. Documentation will be required.

**Cheating will NOT be tolerated!** Although students are encouraged to study together, all assignments must represent one's own work unless indicated otherwise by the instructor. At a minimum, students should expect a grade of 0 for any assignment in which students violated the code of academic integrity. For more information, students should consult the Academic Integrity Policy at:

<http://www.west.asu.edu/studentlife/forms/acadinteg.htm>

**Lecture Outline**  
(Tentative and subject to change)

| Week of:     | Topic   | Reading* |
|--------------|---|----------|
| Aug 25-27    | Course introduction; Overview of evolution                        | 1, 2     |
| Sep 1-3      | <b>No Class Sept 1: Labor Day</b><br>Phylogenetic reconstruction  | 2        |
| Sep 8-10     | Animal body plans and development                                 | 2, 23    |
| Sep 15-17    | Support & movement  | 3, 5     |
| Sep 22-24    | Protozoans; Origin of animals<br><b>EXAM 1: Wednesday, Sep 24</b> | 3        |
| Sep 29-Oct 1 | The sponges; Cnidarians   | 4, 6     |
| Oct 6-8      | Mesozoans, Ctenophores, & Flatworms                               | 7-9      |
| Oct 13-15    | Ribbon worms, Rotifers & Acanthocephalans                         | 10-11    |
| Oct 20-22    | Annelids & Peanut Worms   | 13       |
| Oct 27-29    | <b>EXAM 2: Monday, Oct 27</b><br>Molluscs                         | 12       |
| Nov 3-5      | Nematodes & relatives   | 16-17    |
| Nov 10-12    | Arthropods: their relatives & origins                             | 14-15    |
| Nov 17-19    | Arthropods, continued   | 14       |
| Nov 24-26    | <b>EXAM 3: Monday, Nov 24</b><br>Some Minor Phyla                 | 18-19    |
| Dec 1-3      | Echinoderms & Hemichordates<br><i>Special Projects Due Dec 3</i>  | 20-21    |
| Dec 8        | Chordates   | 22       |
| Dec 17       | <b>FINAL EXAM: 12:10 - 2:00</b>                                   |          |

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\*Chapters in Pechenik, J.A. 2005. *Biology of the Invertebrates*, 5th ed.

**Lab Outline**  
(Tentative and subject to change)

| Day:        | Topic   | Relevant Chapters in Text* |
|-------------|---|----------------------------|
| August 25   | Introduction: Phylogenetic Analysis, Anatomical Terminology | 2                          |
| September 1 | <b>LABOR DAY — NO CLASS</b>                                 |                            |
| 8           | Microscopy, Protozoans                                      | 3                          |
| 15          | <b>Mini Practical Exam;</b> Sponges                         | 4                          |
| 22          | Cnidarians & Ctenophores                                    | 6, 7                       |
| 29          | Flatworms; Ribbonworms; Nematodes & relatives               | 8, 11, 16, 17              |
| October 6   | Various minor phyla & Lophophorates                         | 10, 18, 19                 |
| 13          | Field Exercise: Arthropod Sampling†                         |                            |
| 20          | <b>LAB PRACTICAL EXAM 1</b>                                 |                            |
| 27          | Arthropods 1  | 14, 15                     |
| November 3  | Arthropods 2  | 14                         |
| 10          | Annelids & Sipunculans                                      | 13                         |
| 17          | Molluscs  | 12                         |
| 24          | Echinoderms   | 20                         |
| December 1  | Hemichordates and Chordates                                 | 21-22                      |
| 8           | <b>LAB PRACTICAL EXAM 2</b>                                 |                            |

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\* Pechenik, J.A. 2005. *Biology of the Invertebrates*, 5th ed.

†Portion of lab may be carried out during lecture periods