Welcome to Invertebrate Zoology!

Phylogenetic Tree of Life (greatly simplified…)

Can you hang these phyla names in the appropriate places on the family tree?

1. Annelids
2. Arthropods
3. Chordates
4. Cnidarians
5. Echinoderms
6. Molluscs
7. Platyhelminths
8. Poriferans
Course Policies: Invertebrate Zoology (Biology 3520)

Instructor: Dr. John Lugthart    Office: 113 Sequoya Hall (on the south end)

Phone: 706-272-2485    E-mail: jlugthart@daltonstate.edu

Office Hours:


Course Prerequisite: Biology 1108

Course Description: Invertebrates are incredibly diverse. Many, not all, are beautiful. All, if you really get to know them, are fascinating! Our goal for this course is modest – all we will try to do is examine everything there is to know about invertebrate animals. Since they only make up about 98% of all known animal species, this should be easy to accomplish, right? OK, more seriously, this course will give you an introduction to the major invertebrate phyla. As we proceed through the course we will wiggle our way up the evolutionary tree and end up in the branches just below our vertebrate ancestors. Along the way we will discuss aspects of their ecology and focus on the relationships between structure and functions such as feeding, locomotion, respiration, excretion, and reproduction.

What to expect: The course will follow your text fairly closely so it will be important to keep up with the reading. There will be a lot of material to assimilate as we progress through the wonderful diversity of invertebrate phyla. I recommend that you read assigned chapters before class or soon thereafter. You must be prepared to learn many new terms and concepts, and to discover many new groups of animals. In lab you will have the opportunity to take a close look at many different invertebrates and hunt for some as well! The field of invertebrate zoology is so vast that we will only scratch the surface. Attending lectures and labs and careful reading of your text are essential to your success in this course.

I’m looking forward to this course and I hope that you are too. I will try to give you a good introduction to the invertebrates and, if we all “get into it”, the experience should be interesting and even fun! As we go through the course, I welcome your questions and feedback.

Primary Student Learning Outcomes:
- Describe key adaptations and trends in the evolutionary history of invertebrate animals.
- Identify and understand invertebrate body structures.

Course Objectives: At the end of this course the student should also be able to:
1. demonstrate an understanding of the phylogenetic relationships among the major taxa studied
2. explain links between structure and various invertebrate functions
3. describe the major habitats where specific invertebrate taxa thrive
4. summarize the ecological (and in some cases medical/economic) importance of specific invertebrates
5. demonstrate an understanding of the taxonomy of invertebrates
Academic Dishonesty: Honesty is expected and cheating will not be tolerated. For a definition of cheating, see the DSC Catalog and Student Handbook, Conduct Information and Regulations, I. Academic Irregularity. Cheating on an exam, lab, or other assignment will result in a zero for that particular assessment and an Incident Report will be submitted to the DSC Incident Review Committee.

Attendance Policy:

Class: Lunch time - that’s a time when some creatures take a siesta. However, let’s all do our best to arrive on time (and stay alert!). Attendance is strongly recommended. Missing class often makes it difficult for a student to succeed in the course and regular absences will result in the loss of participation points at the end of the semester. If class is missed, you will be responsible for obtaining material, announcements, and assignments given in class. If you miss a bunch of classes, you will be required to dig up a yellow jacket nest.

Labs and Exams: Attendance is mandatory. Please notify me by email if you will not be able to attend a lab or exam. Make-up exams will only be given for absences due to the following reasons: 1) campus sanctioned activities, 2) military service, 3) court appointments, 4) illness. The make-up will be taken in advance of the scheduled date (if feasible), documentation must be provided, and notice of your absence must be provided as early as possible. All exam papers must be returned to the instructor after they are reviewed in class. Each unexcused absence from lab will result in the loss of 5 points from a student’s point total.

Evaluation:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>3 Lecture Exams (100 points each)</td>
<td>300</td>
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<tr>
<td>Final Exam (150 points)</td>
<td>150</td>
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<tr>
<td>3 Lab Practicals (50 points each)</td>
<td>150</td>
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<tr>
<td>Primary Literature Summary</td>
<td>30</td>
</tr>
<tr>
<td>Stream invertebrate observations</td>
<td>5</td>
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<tr>
<td>Stream Creature Feature</td>
<td>20</td>
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<tr>
<td>Participation</td>
<td>10</td>
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<td><strong>TOTAL</strong></td>
<td><strong>665</strong></td>
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- **Lecture Exams**: Exams will be composed of a mix of multiple choice, matching, true/false, diagram labeling, invertebrate identifications, and short answer/essay questions.
- **Final Exam**: The final will consist of comprehensive questions over the entire course. You will receive a list of potential questions prior to the final and some of these will be on the final.
- **Lab Practicals**: Questions on the practicals will focus on material examined in previous lab periods and will consist of identifications of organisms and structures, as well as questions taken from the lab exercises.
- **Primary Literature Summary**: Each student will write a short (250 word) summary of a paper from the primary scientific literature on any aspect of the biology of a single genus of invertebrate that interests you. You will be given specific guidelines for this assignment.
- **Stream Creature Feature**: Pairs of students will choose an aquatic invertebrate group and give a brief presentation about its distinguishing features, habits, etc.
- **Participation**: Participation points will be based on participation in lecture and lab, being on time to lecture and lab, cleaning up your lab space after lab, and properly storing your microscope.
- **Lecture Quizzes**: Periodic announced quizzes, typically 5 points apiece, may be given in class.

Final Grade Assignment:

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<tr>
<th>Grade Assignment</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tbody>
<tr>
<td>90 - 100%</td>
<td>60 - 69%</td>
<td>Less than 60%</td>
<td>F</td>
<td>C</td>
<td></td>
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Other Information

- Please turn off and put away all electronic devices (so, no texting!) before lecture and lab begins.
  I would like all of you (& me) to be as focused as possible when you are in class. Thank you!
- **The last day to drop this class without penalty is _____.** You will be assigned a grade of W. After this date, withdrawal without penalty is permitted only in cases of extreme hardship as determined by the Vice President for Academic Affairs; otherwise a grade of WF will be issued. The proper form for withdrawing from all classes at the college after the official drop/add period but before the published withdrawal date is the *Schedule Adjustment Form.* All students must meet with a staff member at the Office of Academic Resources in the Pope Student Center to initiate the withdrawal process. After meeting with the staff member, students will then finalize the withdrawal process in the Enrollment Services Office. Students who fail to complete the official drop/withdrawal procedure will receive the grade of F. Withdrawal from class is a student responsibility. The grade of W counts as hours attempted for the purposes of financial aid.
- **Workforce Innovations Opportunities Act:** Questions regarding students receiving financial assistance through the Workforce Innovations Opportunities Act should be directed to 706-295-6840.
- **Students with disabilities or special needs are encouraged to contact the Disability Access office.** In order to make an appointment or to obtain information on the process for qualifying for accommodations, the student should visit the Disability Access Library Guide at [http://libguides.daltonstate.edu/c.php?g=24716&p=149667](http://libguides.daltonstate.edu/c.php?g=24716&p=149667) or contact the Disability Access office. Contact information: Andrea Roberson, Associate Director of Disability Access and Student Support Services; Pope Student Center, upper level; 706/272-2524; aroberson@daltonstate.edu
- **Sex Discrimination, Harassment, & Assault Statement (see next page)**
- **Emergency Instructional Plan:** If the college is closed for inclement weather or other conditions, please consult your lecture and lab schedules and complete assigned readings. Any assignments due during the closed interval will be due the first day class meets after the college reopens. Labs that are missed will either be made up at a later date or removed from the class schedule and not counted at the end of the semester in the final grade. Exams will be moved in the class schedule to accommodate the curtailed schedule. I may be available via e-mail on a limited basis when the college is closed.
- Let’s try to be “green” by recycling all paper, plastic, and aluminum – at least while on campus and hopefully away from campus as well!
- **GeorgiaView (D2L):** Course materials (including syllabus, schedules, and grades) will be placed on GA View.
- Here is what you can expect of me. As your professor, I pledge to:
  - show you respect
  - start and end class on time
  - come to class prepared
  - create challenging and fair assessments of your learning
  - return exams and other assignments to you in a timely fashion
  - answer all questions to the best of my ability
- Here is what I expect of you. As my students, I expect you to:
  - come to class prepared
  - participate in class – ask and answer questions
  - read your textbook
  - study hard
  - come see me when you are having trouble with the material
  - commit to excellence and be successful in this course
Sex Discrimination, Harassment, & Assault
Sexual harassment is unwelcome, gender-based verbal or physical conduct that is sufficiently severe, persistent or pervasive that it has the effect of interfering with, denying or limiting someone’s ability to participate in or benefit from the college’s educational program and/or activities, and is based on power differential (quid pro quo), the creation of a hostile environment, or retaliation.
Sexual misconduct is a form of sexual harassment prohibited by Title IX. Sexual misconduct refers to “physical sexual acts perpetrated against a person’s will or where a person is incapable of giving consent due to the victim’s use of drugs or alcohol. An individual also may be unable to give consent due to an intellectual or other disability.” Sexual misconduct includes dating violence, domestic violence, rape, sexual assault, sexual battery, stalking, and sexual coercion.

Reporting Options

Call 911 if you are in an emergency situation

Dalton State Public Safety (this report is not confidential)
Tech Building- Upper Level - 706-272-4461
Online Sexual Assault Report -
https://dynamicforms.ngwebsolutions.com/ShowForm.aspx?RequestedDynamicFormTemplate=3fe5724c-a8bd-4a31-9c25-1a3d35110a51

If you would like to report to Dalton State Administration: (this report is not confidential)
Report Title IX complaint online - http://daltonstate.edu/campus_life/student-conduct-about.cms
Report Student-on-Student Title IX complaint in person:
Brittnie Lee, Office of Student Life
Coordinator for Student Responsibility & Service/ Deputy Title IX Coordinator
Pope 113
balee@daltonstate.edu, 706-272-2999

Report Title IX complaint involving Faculty or Staff in person:
Faith Miller, Human Resources
Director of Human Resource/ Title IX Coordinator
Memorial 122
fmiller@daltonstate.edu, 706-272-2034

If you would like to talk with someone confidentially:
Dalton State Counseling & Career Services, Academic Resources
Lower Pope
706-272-4429
counseling@daltonstate.edu
http://libguides.daltonstate.edu/Counseling