Instructor Information:
Dr. S. Meiers
Office Phone: # 298-2008  email: ST-Meiers@wiu.edu
Home Phone: 309.255.9533 (call before 9 pm!)
Office: 205 Waggoner (Wg)  Research Labs: 203/204 Waggoner
Office hours: Office hours: M 10-11, 2-3; Tues 10-11; W 10-11, 2-3; Th 11-12; F 10-11 and by appointment.(don't be shy-- I am usually in my office or research lab when not teaching)

Required Texts:
Assorted readings from books, volumes, and the literature as required.

Class:  Wednesdays 3:00-5:50 pm, in 112 Waggoner (Wg).

Course Overview:
This course is designed to introduce graduate students to the concepts and applications of systematics and taxonomy in biology and related fields. It stresses cladistic methodology, and teaches graduate students how to understand and apply phylogenetic systematics in their own research. Evolutionary concepts, species concepts, concepts of homology, and differences in approaching morphological and molecular data will also be addressed. Whether your interests lie in microbiological, botanical, or zoological areas of research, this course will introduce you to what nearly 100% of all researchers utilize to understand living diversity and the evolution of life.

Course Goals:
On completion of this course, the student shall be able to:
1. Understand the philosophical underpinnings of the scientific method, evolutionary theory, and their applications to systematics.
2. Use and apply taxonomic systems and nomenclature in their own research.
3. Explain and describe the mechanics and methodology of phylogenetic systematics, and how it differs from older systems of evolutionary taxonomy and phenetics.
4. Apply an understanding of phylogenetic systematics to your own area of research.
5. Understand the application of phylogenetic systematics in areas of biological importance including biodiversity, ecology, conservation, and the interpretation of macroevolutionary patterns.

Student Responsibilities:
You are responsible for:
1. Reading and taking responsibility for all assignments, policies, and expectations presented in this syllabus.
2. All material covered in lecture, including additional material not covered in your text.
3. Reading all assigned text assignments prior to lecture.
4. Attending and actively participating in class discussions.
5. Having access to university computers for downloading lecture goals, course information.
6. Taking exams and quizzes on the day they are given.
7. Completing assignments by their due dates.
8. Keeping track of your own grade.
8. Asking the professor for help and utilizing the professor's office hours and/or appointments for assistance.

Attendance Policy:
In order to get the most out of your education, you are expected to attend class and to be on time and stay for the entire class period. Attending lecture in a course such as this is critical to your understanding of any material, and especially of complex philosophical and systematic material that you will be learning about in this course. Since we only meet twice per week, three or more unexcused absences will result in an automatic failure of the course. Four absences, excused or not, will also result in an automatic failure of the course. An excused absence requires proper documentation: if you are sick, give me a doctor’s note; if there is a family death, supply me with appropriate funeral documentation. Undocumented absences are considered unexcused by the University. Any combination of two incidences of coming to class late and/or leaving early will be considered and treated as an unexcused absence. Any missed quizzes cannot be made up if you have an unexcused absence or were not in class for the full period. DO NOT turn in ANY assignments, quizzes, etc. for students who were not in class; let them turn them in themselves.

**Students with Disabilities:**
In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the me of the need for an accommodation. It is imperative that you take the initiative to bring such needs to my attention, as I am not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e., fire, tornado, etc) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Please contact Disability Support Services (298-2512) for additional services.

**Grading Criteria:**

**Exams and Quizzes:**
All students will take 6 (5 of which count toward your grade) quizzes worth 10 points each, 2 exams each worth 100 points, and 1 semi-cumulative take-home final exam worth 50 points. Each quiz and exam will consist of a combination of multiple-choice and essay questions that are based on text reading assignments, discussions, and material presented in class. This includes presented material not available in the books! It is every student’s responsibility to be prepared for these quizzes and exams by attending every class. It is also every student’s responsibility to find out what they missed during classes for which they were absent.

Show up on time for exams – students who show up to take an exam/quiz after another student has completed and turned in that exam/quiz will not be allowed to take the exam/quiz and will receive a zero.

**Missed Exams Policy:**
If for some reason you are unable to take an exam, you must contact me within 2 school days by phone. Failure to phone me within 2 school days of the exam can jeopardize your chance to make up that exam. I do NOT consider email or voicemail as notification of missing an exam. You must speak with me either in person or by phone. I expect documentation (a copy of hospitalization papers, accident report, arrest report, etc.) from you should you have an unavoidable legitimate (i.e., University-approved) excuse. A different, essay-format make-up exam will be available to students with excused absences up to one week after the original exam was given. It is your responsibility to make arrangements with me for the make-up exam when you contact me to state your reasons for missing the exam. After a week has passed, unless extreme circumstances exist (e.g., death in the immediate family, hospitalization, etc.), the student can no longer make up the missed exam and will receive a zero for it. Missed exams that are not excused (i.e., do not have proper documentation from the student – see attendance policy above for details) cannot, under any circumstances, be re-taken or made-up.

**Late Work Policy:**
Assignments, written reports, postings to Western Online, etc., will be docked 10% of its final grade per day. Any work submitted over weekends (i.e., slid under my door, in my mailbox, posted to Western Online, etc.) will be considered to have been turned in on Monday morning (3 days late: Saturday, Sunday, Monday= loss of 30% of final grade).
Discussion Sheets:

To give students experience reading, interpreting, and discussing scientific papers, each student will read scientific papers designated for class, fill in a discussion sheet, and are expected to actively participate in discussions of those papers. The discussions will be a component of the graded "Discussion and Participation" criteria discussed above. To help prepare you for discussion, you will fill out and turn in prepared discussion sheets that Dr. Meiers will post to Western Online for text chapters and scientific papers. Discussion in class will be based on, but not be limited to, topics from the discussion sheets. 10 of the 12 discussion sheets will count toward your final grade.

Students will be graded on their Discussion Sheets using the following criteria each time they are evaluated (NOTE: ANY copying of another student's summary sheet is an act of plagiarism and will be dealt with accordingly. Any TWO incidences of plagiarism for Discussion Sheets will result in an automatic F for the course.)

1. Student filled in the form with minimal information for each section – 1-2 points.
2. Student demonstrated knowledge of the week's assigned paper; this involves the student referring specifically to an article, chapter, etc., directly; vague discussions such as "like it says in the book" or "I read somewhere" don't count – 3-5 points.
3. Student does not fill out summary sheet prior to the beginning of class – 0 points.

Discussion Participation:

Learning to discuss scientific issues and to defend one's conclusions based on evidence instead of opinion are critical skills for all scientists. In each class, we will discuss text selections and scientific papers and critically review them. This skill is so important that 29% (200/700 points) of your grade is determined by how well prepared you are in our meetings and how well you can debate as a scientist.

You will be evaluated on discussion weekly throughout the course. Students will be graded on their discussion using the following criteria each time their participation is evaluated:

1. Student participated in discussion – 0.5 point.
2. Student demonstrated knowledge of the week's assigned readings; this involves the student referring specifically to an article, chapter, etc., directly; vague discussions such as "like it says in the book" or "I read somewhere" don't count – 0.5 point.
3. Student had an answer for Dr. Meiers when questioned or challenged that demonstrated an understanding of the week's assigned readings – same stipulations as for criterion 2 above – 1.0 points.
4. Student challenges the text, other students, or Dr. Meiers, again with a demonstrated understanding of the week's assigned readings – same stipulations as for criteria 2 and 3 above – 1.5 points.
5. Repetitive single-answer remarks, derogatory remarks against the professor or other students, interrupting the professor or others as they are speaking, and other similar or aggressive verbal tactics will result in the loss of 3 points for each instance. Once the meeting’s total points are lost, points will be withdrawn from previous and/or future participation grades until the behavior ends.

The number of times a student participates is not used to calculate the grade, but if a student does not participate, no discussion grade will be earned for that meeting. On the other hand, substantive rather than quantitative participation will be rewarded. In other words, you want to participate enough each meeting that you earn 10 points, but not simply to interrupt or give simple "yes" or "no" responses (see #5 and #6 above).

Please understand that part of learning to discuss as a scientist involves debate. Dr. Meiers will engage you in debate, often playing "Devil's Advocate," but at no time should you ever allow the debate to become personal. The debates are meant to foster a better understanding of the material and to challenge your viewpoint or style of argument. Your scientific peers will always be much harder on you!

It is okay to disagree with anyone – your grade will never be based on whether you agree with anyone regarding the interpretation of specific phylogenetic or philosophical issues. Whatever your hypotheses, suggestions, or insights, be sure to defend them with evidence, not opinion.
Annotated Bibliography:

Each student will complete an annotated bibliography at noon sharp to my mailbox (see page one) on Friday, November 7th, which will be used for the final presentation. Details, procedures, and grading of the annotated bibliography are given in the Final Presentation handout.

Final Presentation:

A Powerpoint final presentation summarizing the phylogenetic relationships of a major taxonomic group related to the student’s area of proposed research will be presented during the last 5 days of class, on dates to be randomly determined. This project is meant to familiarize the student with the group of organisms they are studying, to get them reading literature relevant to their field of interest, and to practice writing a scientific summary article. Information on report and presentation guidelines and the breakdown of the project’s grade are detailed a separate Final Presentation handout.

How Grades are Determined:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Maximum Points</th>
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<tbody>
<tr>
<td>Exams (Midterm and Final), 100 points each</td>
<td>200 Points</td>
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<tr>
<td>Semi-Cumulative Final Exam, 50 points</td>
<td>50 Points</td>
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<tr>
<td>Quizzes (5 count toward final grade), 10 points each</td>
<td>50 Points</td>
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<tr>
<td>Classroom Discussion &amp; Participation (10 count), 10 points each</td>
<td>100 Points</td>
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<tr>
<td>Scientific Paper Discussion Sheets (10 count), 10 points each</td>
<td>100 Points</td>
</tr>
<tr>
<td>Annotated Bibliography</td>
<td>100 Point</td>
</tr>
<tr>
<td>Final Presentation</td>
<td>100 Points</td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td><strong>700 Points</strong></td>
</tr>
</tbody>
</table>

Grading Scale*:

<table>
<thead>
<tr>
<th>Points</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>630.00-700</td>
<td>A</td>
</tr>
<tr>
<td>560.00-629.99</td>
<td>B</td>
</tr>
<tr>
<td>490.00-559.99</td>
<td>C</td>
</tr>
<tr>
<td>420.00-489.99</td>
<td>D</td>
</tr>
<tr>
<td>&lt;419.99</td>
<td>F</td>
</tr>
</tbody>
</table>

*Grades are assigned based on points earned – grades are never curved.

Conflicts with the Final Exam:

Find out now if there are any scheduling conflicts with the Final Exam and see me ASAP if there are. I will not, under any circumstances, let you take the final at another time unless you see me about it by September 2, 2013. After this date, you are locked in to taking the final at the scheduled date and time.

Extra Credit:

You have the opportunity to earn 700 points in this course from a wide variety of activities (exams, quizzes, assignments, participation) spread over duration of the course. Therefore, I will not offer extra credit assignments – the grade you earn corresponds to the points you accumulate. Please do not ask for extra credit assignments – none will be given.

Academic Dishonesty:

Academic dishonesty in any form is not tolerated in this (or any) class. Doing an assignment, quiz, etc. for someone else to be turned in as theirs, turning in a quiz for someone who left class early, cheating on an exam or quiz, allowing someone to cheat on an exam or quiz, copying someone else’s assignment from a previous semester and turning it in as your work, etc. are all clear violations of the Student Code of Conduct concerning Academic Integrity. Seeing that this is a graduate course, and as graduate students you are considered adults and “scientists-in-training”, a first offense of any type of academic dishonesty will result in an automatic F in this course. A copy of the Student Code of Conduct is available (for free)
from your college, in the student newspaper the first week of classes, and on the web at http://www.student.services.wiu.edu/sjp/CodeOfConduct/—read and understand it. Note that the penalties for academic dishonesty may include failing the course and/or expulsion from the university.

Absolutely, positively, and under NO CIRCUMSTANCES WILL STUDENTS BE ALLOWED TO ANSWER, USE, OR OTHERWISE HAVE ACCESS TO ANY OUTSIDE MATERIAL OF ANY KIND DURING A QUIZ OR AN EXAM. Such use, access, and/or answering an electronic device will be considered an attempt to cheat on said quiz or exam and I will follow the stated policy regarding cheating stated in the paragraph directly above. Should you have a family emergency that may require access to a cell phone during a quiz or exam, you MUST make arrangements with me, Dr. Meiers, beforehand.

**Academic Dishonesty–Plagiarism:**

The faculty of the Department of Biological Sciences ascribes to a definition of plagiarism as expressed by V. E. McMillan in *Writing Papers in the Biological Sciences* (Bedford/St.Martin’s Press, New York, pg 16):

“Plagiarism is the theft of someone else’s words, work, or ideas. It includes such acts as (1) turning in a friend’s paper and saying it is yours; (2) using another person’s data or ideas without acknowledgement; (3) copying an author’s exact words and putting them in your paper without quotation marks; and (4) using wording that is very similar to that of the original source but passing it off as entirely your own even while acknowledging the source.”

This includes information in textbooks or laboratory manuals, honors and masters theses, all writing assignments, and images. The faculty of the Department attempt to monitor student writing assignments (essay exams, papers, laboratory reports, and other writing assignments or exercises) for incidence of plagiarism. If plagiarism is found, the faculty will discuss the situation with the student and indicate to the student the penalty for this academic dishonesty. Potential penalties include those cited in the academic dishonesty section of the WIU web page, [http://www.wiu.edu/policies/ugdishst.shtm/](http://www.wiu.edu/policies/ugdishst.shtm/)

Plagiarism is one of the most serious crimes in academia and, certainly, in science. You are graduate students— I expect that you understand this. Anyone who plagiarizes on any assignment or exam in the course will receive an “F” for entire course. Such an infraction will be added to the student’s permanent record and, if CAGAS determines it is necessary, the student will be expelled from the university. Ignorance of what plagiarism is is not possible as you are responsible for all the information in this syllabus, which includes a definition and examples of plagiarism. Plagiarism is intolerable, always. If any student has questions regarding plagiarism, s/he should see me prior to turning in any assignment. You will be held to all university policies regarding plagiarism.

**"Be respectful" policy:**

Be respectful of everyone in class. Please do not disturb other students by talking unnecessarily, reading the paper, passing notes, etc. during the class. PLEASE TURN OFF ALL CELL PHONES, BEEPERS, AND OTHER ELECTRONIC DEVICES DURING CLASS. If you repeatedly disturb the class with talking, your cell phone, etc., I will ask you to leave the class. Come to class on time and stay until the end. If you have a hard time hearing me, please don’t hesitate to ask me to talk louder, or to move your seat as you need to be able to hear better.

**About Western Online**

Western Online is a web platform for WIU courses. For this class, you will be using Western Online to access a copy of the syllabus, chapter review sheets, access grades for the course, access websites that will help you learn the material in this course, and some assignments may be posted to the Discussion portion of Western Online.

Logon to Western Online at: [https://westernonline.wiu.edu/](https://westernonline.wiu.edu/)

You will need to enter your ECOM name and your password to enter Western Online. Only registered students in the course can access this site. The syllabus, review sheets, etc. will be posted to Western Online. The Gradebook option will not be used.
If you do not know your ECOM account, you need to talk to Academic Computing Help Desk (298-2704) to find out your account name and password. If you do, find the Western Online site, log in, and explore it a bit. Make sure that you can find the syllabus, course documents, etc. If you cannot get into the Western Online site, you need to ask Academic Computing for help.

It is your responsibility to register yourself with Western Online and make sure that you can access materials on the on-line site.

### Important Dates for the Semester:

<table>
<thead>
<tr>
<th>Date</th>
<th>Why it is important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon. Aug 27</td>
<td>Classes begin</td>
</tr>
<tr>
<td>Fri. Aug 29</td>
<td>Last day to add a class</td>
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<tr>
<td><strong>Mon. Sept. 1</strong></td>
<td><strong>Labor Day Holiday</strong></td>
</tr>
<tr>
<td>Weds. Sept. 17</td>
<td>Topics for Presentations/Annotated Bibliography due</td>
</tr>
<tr>
<td>Weds. Oct. 8</td>
<td>3 Ann. Bib. sources due, 3 others listed</td>
</tr>
<tr>
<td>Weds. Oct. 15</td>
<td>Midterm Exam</td>
</tr>
<tr>
<td>Fri. Oct. 17</td>
<td>Fall Holiday</td>
</tr>
<tr>
<td>Fri. Nov. 7th, noon</td>
<td>Annotated Bibliography due to my office or mailbox</td>
</tr>
<tr>
<td><strong>Mon.-Fri. Nov. 18-26</strong></td>
<td><strong>Thanksgiving Break</strong></td>
</tr>
<tr>
<td>Fri. Dec. 10</td>
<td>Student Presentations</td>
</tr>
<tr>
<td><strong>Mon. Dec. 11, 3:00-5:50 pm</strong></td>
<td><strong>Exam 2 and Cumulative Final Exam due</strong> at 3:00 am sharp by paper copy only!</td>
</tr>
</tbody>
</table>

Quizzes: 9-10, 9-24, 10-8, 11-5, 11-12, 12-3 (6 given, 5 count toward your grade)

This syllabus is a written contract between you and the professor. By continuing to be enrolled in this class, you agree to abide by the policies presented herein.