Appendix A.  
Course Descriptions and Prescribed Sequence of Courses

Syllabi are presented on the following pages. The new proposed courses are:

First-year core sequence (01 credits each)

Fall
EEBX 601. Physiological Ecology
EEBX 602. Population Ecology
EEBX 603. Community Ecology
EEBX 604. Ecosystems Ecology

Spring
EEBX 605. Population and Quantitative Genetics
EEBX 606. Phylogenetics and Comparative Biology
EEBX 607. Evolutionary Genomics
EEBX 608. Behavioral Ecology

EEBX 681. Colloquium (may be repeated for credit; students are required to register for six semesters; 01 credits)
EEBX 690. First-year graduate seminar (01 credits)

Journal clubs may be drawn from existing journal clubs in appropriate area in consultation with the dissertation committee.

Prescribed electives

The following table lists courses central to EEB according to whether they fit into the Ecology, Evolution, or Quantitative categories. Students entering with an undergraduate degree will be required to take one course from each of the three categories; students with a master’s degree will be required to take courses from two out of the three categories. These courses will typically be taken in the second year of studies.

Ecology

| 2013 Spring | ENTO 614 | Insect Comm Ecology | Eubanks  |
| 2012 Fall, 2013 Fall | ENTO 625 | Landscape Ecology | Coulson  |
| 2012 Fall, 2013 Fall | ESSM 621 | Physiological Plant Ecol | West  |
| 2012 Spring | WFSC 611 | Estuarine Ecology | Roelke  |
| 2012 Spring, 2013 Spring | WFSC 624 | Dynamics of Population | Fujiwara  |
| 2012 Fall, 2013 Fall | WFSC 689 | SPTP: Community Ecology | Winemiller  |

Evolution

<p>| 2013 Spring | BIOL 610 | Evolution | Jones  |
| 2012 Fall, 2013 Fall | BIOL 698 | Behavior Genes Evolution | Rosenthal  |
| 2013 Fall | ENTO 601 | Prncipl of Systmtc Ento | Woolley  |
| 2012 Spring | ENTO 606 | Quantitative Phylogenetics | Mateos/Woolley  |
| 2013 Fall | MARB 668 | Evolutionary Biology | Alvarado-Bremer  |</p>
<table>
<thead>
<tr>
<th>Semester</th>
<th>Department</th>
<th>Course Code</th>
<th>Title</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 Spring</td>
<td>WFSC</td>
<td>633</td>
<td>Conservation Genetics</td>
<td>Hurtado</td>
</tr>
<tr>
<td>2012 Spring</td>
<td>WFSC</td>
<td>646</td>
<td>Quantitative Phylogenetics</td>
<td>Mateos/Woolley</td>
</tr>
<tr>
<td>2013 Spring</td>
<td>WFSC</td>
<td>648</td>
<td>Molecular Evolution</td>
<td>Mateos</td>
</tr>
<tr>
<td>2012 Spring, 2012 Fall, etc</td>
<td>ESSM</td>
<td>651</td>
<td>Geographic Info Systems</td>
<td>Feagin</td>
</tr>
<tr>
<td>2013 Spring</td>
<td>ESSM</td>
<td>660</td>
<td>Landscape Analysis &amp; Mod</td>
<td>Wu</td>
</tr>
<tr>
<td>2013 Fall</td>
<td>GEOL</td>
<td>651</td>
<td>Paleo Community Analysis</td>
<td>Olszewski</td>
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<tr>
<td>2013 Fall</td>
<td>STAT</td>
<td>651</td>
<td>Statistics in Research I</td>
<td></td>
</tr>
<tr>
<td>2013 Spring</td>
<td>STAT</td>
<td>652</td>
<td>Statistics in Research II</td>
<td></td>
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<td></td>
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<td></td>
<td>SPTP: Evolutionary</td>
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<tr>
<td>2013 Spring</td>
<td>VIBS</td>
<td>689</td>
<td>Bioinform</td>
<td>Cai</td>
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<tr>
<td>2013 Spring</td>
<td>WFSC</td>
<td>670</td>
<td>Excel Biometry</td>
<td>DeWitt</td>
</tr>
</tbody>
</table>

**Free electives and dissertation hours**
Depending on individual student needs, students will, in consultation with their dissertation committee, choose additional courses and/or dissertation hours to complete their degree requirements.
EEBX 601 Physiological Ecology

Day: TR
Time: TBD (75 min.)
Location: TBD
Number of Credits: 01 Credit

Instructors:

(odd years)
Dr. Spencer T. Behmer
Department of Entomology
Room 509, Heep Building
Phone: 979-845-3411 (office)
Email: s-behmer@tamu.edu
http://behmerlab.tamu.edu
Office hours: by appointment

(even years)
Dr. Jason B. West
Dept. of Ecosystem Science & Management
Room 413, Animal Industries Bldg.
Phone: 979-845-3772
Email: jbwest@tamu.edu
http://goo.gl/fwhm3
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This first component of the Core Sequence in Ecology & Evolutionary Biology examines how physiological systems respond, over different timescales, to variation in physical and biological environments. This course has two primary goals: (1) to understand how the interaction of organism and environment determines characteristics that are relevant to ecology, and (2) to understand how these individual characteristics affect population and interspecific dynamics. Readings will be drawn from book chapters, contemporary reviews and the primary literature.

Course requirements:
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material (textbook chapters, reviews, and original papers).
- Participate actively in discussions.
- Early in the class, complete a homework assignment on searching and referencing scholarly articles.
- A short, take-home, open-book exam to be submitted the day after the last lecture; answer four questions clearly and concisely in about 20 min each. Late exams will be downgraded a letter grade for each day late.

Course goals: The goal of this course is to provide an introduction to the key issues central to the field of physiological ecology. Examples will be drawn from studies involving plants and animals, as well as the interactions between these organisms.

Grading: Letter grades will be assigned based as follows: participation related to in-class discussion: 20%; homework assignments: 20%; a short, take-home essay exam: 60%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F
Americans with Disabilities Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

Academic Integrity: For additional information please visit: http://aggiehonor.tamu.edu. Please pay close attention to guidelines on avoiding plagiarism: http://aggiehonor.tamu.edu/Descriptions/Plagiarism.aspx.

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SUGGESTED TEXTBOOK READINGS


LECTURES

1. Overview: Plant and Animal Physiology
2. Nutrition
3. Growth processes and Size
4. Temperature
5. Water
6. Effects of Global Change

Take-home essay exam due by email at 4 pm the day after lecture 6. One letter grade will be deducted for each day past the deadline!
EEBX 602 Population Ecology

Day: TR
Time: TBD (75 min.)
Location: TBD
Number of Credits: 01 Credit

Instructors:

(odd years)
TBD

(even years)
Masami Fujiwara
Wildlife and Fisheries Sciences
Room 0012B, Nagle Hall
Phone: 979-845-9841
Email: fujiwara@tamu.edu
http://fujiwara.us
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This second component of the Core Sequence in Ecology & Evolutionary Biology examines the fundamental concepts in population dynamics. The main focus of the course will be birth, death, immigration, and emigration processes, how these processes are affected by internal and external factors, and the ways they affect population abundance.

Course requirements:
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material.
- Participate actively in discussions.
- Complete the final take-home exam. Late exams will be downgraded a letter grade for each day late.

Course goals: The goal of this course is to provide the understanding of the fundamental concepts in population biology. By the end of this course, students are expected to be able to identify general causes of changes in birth, death, immigration, and emigration processes and to gain clear understanding of how these changes can affect the population abundance over time and space.

Grading: Letter grades will be assigned based as follows: active participation: 50%; short, take-home essay exam: 50%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F
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**REQUIRED TEXTBOOK**

**SUGGESTED READING**

**LECTURES**
1. Fundamental theorem of population biology
2. Population structure: Age, size, and developmental stages
3. Temporal fluctuation: Environmental stochasticity, demographic stochasticity, and non-stochastic fluctuation
4. Density dependence: Compensation, over-compensation, and depensation
5. Spatial movement: Immigration, emigration, and invasion
6. Evolutionary population dynamics and evolutionary stable strategy

**Take-home essay exam** due by email at 4 pm the day after lecture 6. *One letter grade will be deducted for each day past the deadline!*
EEBX 603 Community Ecology

**Day:** TR  
**Time:** TBD (75 min.)  
**Location:** TBD  
**Number of Credits:** 01 Credit

**Instructors:**

*(odd years)*  
Micky Eubanks  
Department of Entomology  
Room 115, Biological Control Facility (BCC)  
Phone: 979-862-7847  
Email: m-eubanks@tamu.edu  
http://eubankslab.tamu.edu  
Office hours: by appointment

*(even years)*  
Kirk Winemiller  
Wildlife and Fisheries Sciences  
Room 110D, Heep Labs  
Phone: 979-862-4020  
Email: kwinemiller@tamu.edu  
http://aquaticecology.tamu.edu/  
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often.

**Course prerequisites:** Graduate classification.

**Course description:** This third component of the Core Sequence in Ecology & Evolutionary Biology examines the fundamental concepts in community ecology. The main focus of the course will be conceptual development of the subdiscipline; spatial and temporal patterns of community structure; processes that determine community structure and dynamics; the interface of population, community and ecosystem ecology; and applications of community ecology for natural resource management, agriculture, and health.

**Course requirements:**
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material.
- Participate actively in discussions.
- Complete the final take-home exam. Late exams will be downgraded a letter grade for each day late.

**Course goals:** The goal of this course is for students to achieve a basic understanding of fundamental concepts and analytical methods in community ecology. By the end of this course, students are expected to know the basic vocabulary, concepts, and classic literature of community ecology; and be able to collect community-level data, perform quantitative analyses, and interpret findings in the context of current theories.

**Grading:** Letter grades will be assigned based as follows: active participation: 50%; short, take-home essay exam: 50%.

**Grade scale:** 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F
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REQUIRED TEXTBOOK

There is no required textbook

SUGGESTED READING

The instructor will distribute reprinted articles for discussion. For additional information, students may consult the following textbooks that deal with community ecology: Community Ecology by Peter J. Morin; Population Ecology and Community Ecology: Processes, Models, and Applications edited by Herman A. Verhoef and Peter J. Morin; and Community Ecology by Gary G. Mittelbach.

LECTURES

1. Historical Biogeography and Macroecology: speciation, extinction, energy, productivity, biomass, environmental gradients, species distribution models, island biogeography
2. Species Interactions: competition, niche overlap, diffuse competition, niche complementarity, predation/parasitism, plant defenses, mutualism, commensalism, coevolutionary mosaic
3. Metacommunities and Assembly Rules: neutral model, patch dynamics, species sorting, mass effects, intermediate disturbance, functional traits, life history strategies, supply-side ecology
4. Food Webs and Other Network Perspectives: food web concepts, food web dynamics, top-down and bottom-up controls, food web subsidies, stability-diversity-complexity-productivity relationships, network models, regime shifts
5. The Challenge of Integrating Perspectives: spatial scales, temporal scales, natural vs. anthropogenic disturbances, life history variation and population regulation, alternative modeling perspectives (equilibrium, non-equilibrium, quasi-equilibrium), hierarchy and complexity
6. Applications of Community Ecology: integrated pest management, epidemiology, invasive species and biotic homogenization, extinction vortex, fisheries, habitat fragmentation, biotic indices

Take-home essay exam due by email at 4 pm the day after lecture 6. One letter grade will be deducted for each day past the deadline!
EEBX 604 Ecosystem Ecology

Day: TR  Time: TBD (75 min.)

Location: TBD  Number of Credits: 01 Credit

Instructors:

(even years)
Dr. Rusty A. Feagin
Department of Ecosystem Science & Mgmt.
221C Centeq
Phone: 979-862-2612
Email: feaginr@tamu.edu
http://ssl.tamu.edu/people/r-feagin
Office hours: by appointment

(odd years)
Dr. Brad Wilcox
Department of Ecosystem Science & Mgmt.
Room 207 Animal Industries
Phone: 979-458-1899
Email: bwilcox@tamu.edu
http://agrilife.org/wilcox/
Office hours: by appointment

E-mail will be the primary means of communication for the course. Go to ecampus.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This final component of the fall semester portion of the Core Sequence in Ecology & Evolutionary Biology examines the flow of materials, energy, and information between ecosystems, and the geographic structure in which ecosystems are embedded globally. The major focus of the course will be the integrative nature of spatial and temporal processes acting across ecosystem units. Readings will be drawn from contemporary reviews and the primary literature.

Course requirements:

• Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance, and are a university-authorized excuse. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See the Graduate Student Handbook for more details on university-authorized excuses.
• Read all required material and participate actively in discussions. Each day, one or more students will be responsible for leading discussion on the day’s topic and should come prepared with pertinent points.
• A short, take-home, open-book exam to be submitted the day after the last lecture; answer four questions clearly and concisely in about 20 min each. Late exams will not be accepted.

Course goals: The goal of this course is to provide a sophisticated understanding of ecosystem flow and structure, from landscape to global scales.

Grading: Letter grades will be assigned based as follows: leading in-class discussion: 25%; active participation: 25%; short, take-home essay exam: 50%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F
LECTURES AND REQUIRED READINGS

1. Biogeochemical Cycles: Water  
   (Reading: Durack et al. 2012)
2. Biogeochemical Cycles: Carbon and Nitrogen  
   (Reading: Trumper et al. 2009; Galloway et al. 2005)
3. Trophic Interactions  
   (Reading: Estes et al. 2011)
4. Landscape Ecology  
   (Reading: Forman 1995)
5. Macroecology and Biogeography  
   (Reading: Rosenzweig 1995, Brown & Maurer 1989)
6. Global Ecology  
   (Reading: Lovelock et al. 1973)

Take-home essay exam due by email at 4 pm the day after lecture 6.

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Readings List:

Rosenzweig, M.L. Species diversity in space and time. Chapter 1. Cambridge U Press.
EEBX 605 Population and Quantitative Genetics

Day: TR | Location: TBD
Time: TBD (75 min.) | Number of Credits: 01 Credit

Instructors:
Dr. Michel Slotman
Dept of Entomology
Heep Center 413
Phone: 979 845 7556
Email: maslotman@tamu.edu
Office hours: by appointment

Dr. James Cai
Dept of Veterinary Integrative Biosciences
VRB 384
Phone: 458 5482
Email: jcai@tamu.edu
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This component of the Core Sequence in Ecology & Evolutionary Biology will provide a basic overview of the fields of population and quantitative genetics. The focus will be on fundamental concepts and their applications in the research of natural populations.

Course requirements:
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material (original papers, review papers, and textbook chapters).
- A take-home, open-book exam

Grading: Letter grades will be assigned based as follows: leading in-class discussion: 25%; active participation: 25%; short, take-home essay exam: 50%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F

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REQUIRED TEXTBOOK


REQUIRED READINGS

Several research articles will be part of the required reading of this course. These articles will illustrate the application of current, widely used methodologies in the field of population and quantitative genetics. Readings remain to be determined.

LECTURES

1. Genetic Variation
2. The Causes of Evolution 1
3. The Causes of Evolution 2
4. Molecular Population Genetics 1
5. Molecular Population Genetics 2
6. Genetic Architecture of Complex Traits
EEBX 606 Phylogenetics and Comparative Biology

Day: TR  
Time: TBD (75 min.)  
Location: TBD  
Number of Credits: 01 Credit

Instructors:

Dr. Thomas Olszewski  
Department of Geology and Geophysics  
Room 263, Halbouty Bldg.  
Phone: 979-845-2465  
Email: olszewski@geos.tamu.edu  
http://geoweb.tamu.edu/profile/TOlszewski  
Office hours: by appointment

Dr. Mariana Mateos  
Department of Wildlife and Fisheries Sciences  
Room 320B, Heep Laboratory Bldg. (Old Heep)  
Phone: 979-847-9463  
Email: mmateos@tamu.edu  
http://people.tamu.edu/~mmateos  
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This sixth component of the Core Sequence in Ecology & Evolutionary Biology examines Phylogenetics and Comparative Biology. Readings will be drawn from contemporary reviews and the primary literature.

Course requirements:

- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material (original papers, review papers, and textbook chapters).
- Participate actively in discussions. Each day, one or more students will be responsible for leading discussion on the day’s topic and should come prepared with pertinent points.
- A short, take-home, open-book exam to be submitted the day after the last lecture; answer four questions clearly and concisely in about 20 min each. Late exams will be downgraded a letter grade for each day late.

Course goals: One of the major implications of evolution is that all living organisms are the cumulative product of variation and selection – i.e., life in the present day (and at any time in the history of Earth) is the result of evolutionary processes acting on what was available at earlier times. There are two main sources of information on this cumulative history of life: phylogenies (derived from the organisms themselves) and fossils (derived from the remains of ancient organisms). The goal of this course is to introduce students to the fundamental concepts that allow evolutionary biologists to pose and test evolutionary hypotheses and to use evolutionary and historical relationships to understand life in the present day.
**Grading:** Letter grades will be assigned based as follows: leading in-class discussion: 25%; active participation: 25%; short, take-home essay exam: 50%.

*Grade scale:* 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F

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**REQUIRED TEXTBOOK**

No required text. Required papers and chapters will be made available through eCampus.

**SUGGESTED READINGS**


**LECTURES**

1. Homology: the Central Concept in Comparative Biology
2. The Origin of Animals and the Radiation of Animal Phyla: Fossil Homologies and Stem Groups
3. Interpreting and Inferring Phylogenies
4. Microbes and the Three Domains of Life: Making Use of Phylogenies to Understand Metabolic Evolution
5. The Comparative Method
6. The Quaternary: Using the Comparative Method to Understand How Present-Day Organisms Reflect the World Their Ancestors Lived In

**Take-home essay exam** due by email at 4 pm the day after lecture 6. *One letter grade will be deducted for each day past the deadline!*
EEBX 607 Evolutionary Genomics

Day: TR  
Time: TBD (75 min.)  
Location: TBD  
Number of Credits: 01 Credit

Instructors:
Dr. Adam Jones  
Department of Biology  
Room 118C, BSBE  
Phone: 979-845-7774  
Email: ajones@bio.tamu.edu  
Office hours: by appointment

Dr. Bill Murphy  
Dept. of Veterinary Integrative Biosciences  
Room 103, VMRB Bldg.  
Phone: 979-458-0906  
Email: wmurphy@cvm.tamu.edu  
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This seventh component of the Core Sequence in Ecology & Evolutionary Biology examines the field of evolutionary genomics. The students will be exposed to new techniques for generating large amounts of genetic data, including thousands of single-nucleotide polymorphisms and whole-genome sequence data. The course will then discuss how whole-genome data can transform the study of evolutionary biology and the interpretation of evolutionary phenomena. Main areas of focus include population genomics, the study of adaptation, phylogenomics and speciation.

Course requirements:
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material.
- Participate actively in discussions.
- A take-home exam to be submitted by email the day after the last lecture. Late exams will be downgraded a letter grade for each day late.

Course goals: The goal of this course is to provide an understanding of the application of next-generation sequencing approaches to the study of evolutionary phenomena. The students will be expected to understand the molecular techniques involved, the statistical issues associated with these large datasets, and the implications of these datasets with respect to the evolutionary process.

Grading: Letter grades will be assigned based as follows: active participation: 50%; take-home essay exam: 50%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F
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REQUIRED READINGS
Required readings will originate from the primary literature and will be assigned by email or during class.

LECTURES
1. Comparative genomics and methods.
4. Phylogenomics.
5. Genome structure and evolution.

Take-home essay exam due by email at 4 pm the day after lecture 6. One letter grade will be deducted for each day past the deadline!
EEBX 608 Integrative Animal Behavior

Day: TR  
Time: TBD (75 min.)  
Location: TBD  
Number of Credits: 01 Credit

Instructors:  
(odd years)  
Prof. Gil Rosenthal  
Department of Biology  
Room 203A, Butler Hall  
Phone: 979-255-6119 (cell)  
Email: grosenthal@bio.tamu.edu  
http://swordtail.tamu.edu  
Office hours: by appointment

(even years)  
Prof. Gregory Sword  
Department of Entomology  
Room 114C, Entomology Research Lab  
Phone: 979-862-1702  
Email: gasword@tamu.edu  
http://swordlab.tamu.edu  
Office hours: by appointment

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: This final component of the Core Sequence in Ecology & Evolutionary Biology examines how behavior contributes to survival and reproduction, and in turn how evolutionary history and ecological circumstance interact to shape the expression of behavior. The major focus of the course will be the integrative nature of behavior: the interaction of evolutionary processes, mechanistic constraints, and ecological demands involved in selecting for a set of behavioral strategies.

Course requirements:

- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with the instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material (original papers, review papers, and textbook chapters).
- Participate actively in discussions. Each day, one or more students will be responsible for leading discussion on the day’s topic and should come prepared with pertinent points.
- Complete two problem sets featuring short, quantitative questions related to the course material. A short, take-home, open-book exam to be submitted the day after the last lecture; answer four questions clearly and concisely in about 20 min each. Late exams will be downgraded a letter grade for each day late.

Course goals: The goal of this course is to provide a sophisticated understanding of animal behavior from both mechanistic and evolutionary perspectives, and more generally to encourage thinking about ecology and evolutionary biology as a conceptually unified discipline.

Grading: Letter grades will be assigned based as follows: leading in-class discussion: 25%; active participation: 15%; problem sets: 15% each; short, take-home essay exam: 30%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F
Americans with Disabilities Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

Academic Integrity: For additional information please visit: http://aggiehonor.tamu.edu. Please pay close attention to guidelines on avoiding plagiarism: http://aggiehonor.tamu.edu/Descriptions/Plagiarism.aspx.

"An Aggie does not lie, cheat, or steal, or tolerate those who do."

REQUIRED TEXTBOOK

SUGGESTED READINGS

LECTURES
2. Foraging and cognitive ecology. Readings: W&F chapters 8, 9, 11-13

Take-home essay exam due by email at 4 pm the day after lecture 6. One letter grade will be deducted for each day past the deadline!
EEBX 681. Colloquium

Day: W
Time: 4 pm (60 min.)
Location: TBD
Number of Credits: 01 Credit

Instructors:
TBD

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Course prerequisites: Graduate classification.

Course description: Students attend and actively participate in the weekly EEB colloquium, featuring guest speakers invited by students and faculty.

Course requirements:
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Familiarize yourself with the speaker’s recent papers in advance of the seminar.
- Ask pertinent questions.

Course goals: The goal of this course is to keep students current with contemporary research in EEB being conducted regionally, nationally, and internationally, and to enhance professionalization via collegial interactions with colleagues at other institutions.

Grading: Pass/fail based on attendance. Three or more unexcused absences will be grounds for failure.

Americans with Disabilities Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

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Lecture schedule to be determined by the start of each semester.
EEBX 690. First-year graduate seminar

Day: W
Time: 6:30 pm (60 min.)
Location: TBD
Number of Credits: 01 Credit

Instructors:
TBD

E-mail will be the primary means of communication for the course. Check your email often and keep your mailbox below quota! Go to elearning.tamu.edu for course materials.

Course prerequisites: Graduate classification.

Course description: Students attend and actively participate in a weekly dinnertime conversation on doing a PhD and career planning with EEB core faculty and others. EEB faculty and colleagues provide feedback on applications for fellowship support (e.g. NSG-GRFP).

Course requirements:
- Attend all sessions. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Participate actively in discussions among students and discussion leaders.
- Prepare an NSF-GRFP, EPA-STAR or comparable proposal for critique by your faculty sponsor and other colleagues.

Course goals: The goal of this course is to familiarize students with procedures and expectations for graduate school and with the opportunities available to them for research, education, and collegial interactions at TAMU; to foster collegial interaction among EEB students and faculty campus-wide; and to advise and inform students on career options, career strategies, and funding opportunities. This course will also facilitate and require preparation of competitive extramural fellowship applications like NSF-GRFPs.

Grading: Pass/fail based on attendance and proposal submission. Three or more unexcused absences or failure to submit a timely proposal to faculty sponsor will be grounds for failure.

Americans with Disabilities Act (ADA): The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

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# Weekly schedule

## Part 1: Welcome to Aggieland

<table>
<thead>
<tr>
<th>Lecture 1</th>
<th>Behmer/Rosenthal</th>
<th>Welcome to grad school; living and working in Aggieland</th>
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<tbody>
<tr>
<td>Lecture 2</td>
<td>EEBISO president</td>
<td>EEB student organization</td>
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<td>Lecture 3</td>
<td>Moore</td>
<td>Summer field course opportunities</td>
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<tr>
<td>Lecture 4</td>
<td>Armitage</td>
<td>TAMU@Galveston and exchange opportunities</td>
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## Part 2: Navigating graduate school

<table>
<thead>
<tr>
<th>Lecture 5</th>
<th>Roelke</th>
<th>Structure of NSF; competing for grants and GRFPs</th>
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<tbody>
<tr>
<td>Lecture 6</td>
<td>Slotman</td>
<td>Grant opportunities for graduate students</td>
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<tr>
<td>Lecture 7</td>
<td>Light</td>
<td>Plagiarism; work-life balance</td>
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<tr>
<td>Lecture 8</td>
<td>Medina</td>
<td>International collaborations</td>
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<tr>
<td>Lecture 9</td>
<td>Conway</td>
<td>Collections-based research</td>
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<tr>
<td>Lecture 10</td>
<td>Wicksten</td>
<td>Procedural issues (IACUC, permits, lab safety)</td>
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## Part 3: Career options and career planning

<table>
<thead>
<tr>
<th>Lecture 11</th>
<th>Raymond</th>
<th>Academic/research careers</th>
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<tr>
<td>Lecture 12</td>
<td>Peterson</td>
<td>Government agency careers</td>
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<tr>
<td>Lecture 13</td>
<td>Fitzgerald</td>
<td>ABS program and conservation careers</td>
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<tr>
<td>Lecture 14</td>
<td>Campbell</td>
<td>Scientific publishing and reviewing</td>
</tr>
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