PART I – Course Information

Course Type
☒ Existing/Restructured
☐ New Course Proposed Fall 2013
If new, have you submitted a Form B to the SHSU Curriculum Committee? ☒ Yes ☐ No

Course Prefix & Number: BIOL 1413 (1313+1113)

Texas Common Course Number (TCCN Matrix): NA

Course Title: General Zoology

Course Catalog Description (Copy and paste from online catalog for existing courses):
General principles of zoology are presented in an evolutionary context. Emphasis is placed on
the anatomy, behavior, and ecology of animals. Students are introduced to evolutionary and
ecological principles of biology. Students may begin sequence with either BIO 161 <BIOL 1311>
or BIO 162 <BIOL 1313>. Credit for BIO 162 <BIOL 1313> as a laboratory science is contingent
on completion of BIO 112 <BIOL 1113>. Fall, Spring, Summer. Credit 3. **Note: Fall 2013 , 2
courses (BIOL 1313 and BIOL 1113) become 1 course (BIOL 1413).

Course Prerequisites:

Available Online?
☒ Yes, currently developed in online delivery mode
☐ Anticipated development in online delivery mode (Semester, Year: Spring, 2014)
☐ No

Number of Sections to be Offered per Academic Year: 4-6

Estimated Enrollment per Section: 60-100

Course Level (freshman, sophomore): freshman

Designated Contact Person (for follow-up communication purposes): Diane Neudorf

E-Mail Address: Neudorf@shsu.edu

Phone: 936-294-1548

Approvals

Department Chair:

Signature

Date

Academic Dean:

Signature

Date
PART II – THECB Foundational Component Areas

See Appendix for full description of each component area.

Select Component Area: <Select Component Area>

In one paragraph, describe how the proposed course will fulfill the core and skill objectives of the component area: This course provides an introduction to the science of zoology in an evolutionary context. Students learn about the evolution, anatomy and ecology of major representative phyla of animals. Concepts of scientific laws, theories and hypotheses form the framework for much of the course and are referenced continuously throughout the semester. Students gain a greater appreciation for the importance of other organisms and the role they play in the ecosystem. Issues of human health and impacts of human activities on other species are discussed. Lab activities involve weekly experiments where students are asked to generate hypotheses, collect data and draw conclusions. Labs are based on group work which ensures that students participate as team members. The course addresses quantitative skills (population genetics) and analysis of empirical data (phylogeny construction) through the use of problem sets and interactive lab activities. To allow better assessment of objectives and skill requirements: 1) All lecture and laboratory sections use the same text, Integrated Principles of Zoology (Hickmans et al.). This text provides foundational knowledge, explores the historical context of zoological discoveries, and provides relevant examples of the impact that such discoveries have made on human progress. 2) This text has been integrated as the foundational background of laboratory exercises and experiments designed to engage critical thinking and active learning through observation of living and curated animals, the creation of hypotheses to explain relationships among major animal groups, and quantitative analysis. The Hickman et al. text serves as a companion to the laboratory manual, and each of the laboratory units are integrated with text readings and images. 3) General Zoology will be converted from a 3 hour course with a separate 1 hour lab into a single 4 hour course incorporating both lecture and laboratory. This curriculum design will allow uniform assessment of objectives and skills through administration of a pre and post-test across all lecture sections (standard across instructors).

PART III – Course Objectives & Student Learning Outcomes (SLO)

Insert the applicable course objectives stated as student learning outcomes (e.g., Students completing the course will be able to...) that support the core component area objectives. Please reference the component rubric for additional information on core component area objectives.

Objective/SLO 1: Students completing the course will be able to apply methods of reasoning used by zoologists to describe, explain and predict the evolutionary relationships and distribution of the major animal groups using the scientific method and the comparative method (to include the requirements of falsifiability, logical consistency, comprehensiveness of evidence, objectivity, replication of results, and sufficiency of evidence).
How will the objective be addressed (including strategies and techniques)?
Lectures during the first week of the semester will focus on these methods of reasoning and assigned readings (e.g. How to Think About Weird Things, by Theodore Schick, Jr. and Lewis Vaughn or similar readings according to preference of instructor). The following two weeks of lectures will focus on understanding evolutionary and phylogenetic principles that will apply to the remainder of the semester as we begin discussing the various relationships among major animal groups. Lab exercises focus on comparisons of characters among animal groups and teach students how to construct phylogenies.

Describe how the objective will be assessed: Instructors for the course will create a common pre and post-test to be administered in the lab portion of the course that will be standard across all lecture sections. The test will generally assess students’ understanding of the nature of science, critical thinking skills and evolution. The questions will be balanced according to Bloom’s taxonomy to ensure a mixture of questions that assess both higher order and lower order cognitive skills. The pre-test will be administered during the first week of lab and the post-test will be administered in the last week of the lab.

Objective/SLO 2: Students completing this course will be able to understand and explain interactions within and between species in both evolutionary (e.g. speciation, extinction) and ecological (e.g. symbiotic relationships including mutualism and parasitism, predator - prey interactions) contexts.

How will the objective be addressed (including strategies and techniques)?
Lectures in the first weeks of the semester will specifically address evolutionary concepts that deal with how species form and go extinct. Lectures throughout the semester will address interactions between species in the form of symbiotic relationships and predator-prey interactions. In lab, students will examine live and preserved specimens of species discussed in lecture and they will conduct experiments (e.g. how Hydra detect prey) where they are asked to generate a hypothesis, collect data and formulate conclusions.

Describe how the objective will be assessed: In addition to lecture and laboratory exams, the pre and post-tests mentioned above will generally assess students’ understanding of species interactions.

Objective/SLO 3: Students completing the course will be able to understand the importance of maintaining species diversity for improving human health and experiences and the health of the planet in general (e.g. animals provide novel medicines, pollination of plants, seed dispersal, biological controls, bioindicators, etc.).

How will the objective be addressed (including strategies and techniques)?
Lectures throughout the semester will address the symbiotic relationships among species (e.g. corals and protozoans), impacts of species on human health (e.g. malaria), impacts of human activity on the physical world and on other species (e.g. global warming, pollution and introduced species). In lab students will have the opportunity to examine live and preserved specimens of species discussed in lecture.

Describe how the objective will be assessed: In addition to lecture and laboratory exams, the pre and post-test mentioned above will generally assess students’ understanding of interactions among species, how various species benefit and harm humans and the impacts of human activities on other species.
Objective/SLO 4:

How will the objective be addressed (including strategies and techniques)?

Describe how the objective will be assessed:
Objective/SLO 5:

How will the objective be addressed (including strategies and techniques)?

Describe how the objective will be assessed:

PART IV – THECB Skill Objectives

Address each of the THECB skill objectives required within the component area. Explain how the skill is addressed, including specific strategies to address the skill(s). Address ALL skill objectives associated with the selected Component Area. (See Appendix)

1. Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

How will the skill be addressed (including specific strategies, activities, and techniques)?
The concepts of scientific laws, theories, and hypotheses (in the form of phylogenetic hypotheses) form the framework for much of the course and are referenced continuously throughout the semester. Assigned readings and homework questions will specifically address critical thinking (e.g. How to Think About Weird Things, by Theodore Schick, Jr. and Lewis Vaughn or similar readings according to preference of instructor).

2. Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication

How will the skill be addressed (including specific strategies, activities, and techniques)?
In lab, students work together on all lab activities - including the post-lab group quizzes given in each lab. Some of these group quizzes require a written response, as do some of the individual lab quizzes. Each lab entails both an individual, pre-lab quiz and a group, post-lab quiz. Additionally, select lab exercises require construction of one or more graphs accompanied by a written discussion of experimental results. All of the group activities require the students to orally communicate with the other members of the group, and to the class as a whole during discussions. The quality of the oral interactions are reflected in the peer scores assigned by the members of the group to one another. These activities require oral and visual communication and necessarily require the interpretation of ideas.

3. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

How will the skill be addressed (including specific strategies, activities, and techniques)?
In the population genetics part of the course students are required to calculate frequencies of alleles and genotypes using the Hardy-Weinberg Equation. One lab is dedicated to population genetics and involves problem sets and interactive activities to help students understand the Hardy-Weinberg model. As mentioned above, in select labs students are required to construct and interpret graphs based on experimental data. In lecture and lab students will be taught how
to interpret phylogenies. Assignments throughout the semester will challenge students to construct phylogenies of various animal groups under study using a suite of characters. Students will be required to read and interpret scientific articles that demonstrate the latest findings for phylogenies of the groups in question.

4. **Teamwork**: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

How will the skill be addressed (including specific strategies, activities, and techniques)? All students in the lab portion of the course are placed into groups and are required to work together on lab exercises. This necessarily requires the students to work as members of a team and to develop their ability to work effectively with one another.
5. **Personal Responsibility:** to include the ability to connect choices, actions and consequences to ethical decision-making

How will the skill be addressed (including specific strategies, activities, and techniques)?

6. **Social Responsibility:** to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

How will the skill be addressed (including specific strategies, activities, and techniques)?

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**PART V – SHSU Core Curriculum Committee Requirements**

1. Using a 15-week class schedule, identify the topics to be covered during each week of the semester. Provide sufficient detail to allow readers to understand the scope and sequence of topics covered.

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Introduction to science and the scientific method; Characteristics of Life</th>
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</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>Evolution: the evidence for evolution (e.g., vestigial structures, comparative embryology, the fossil record) and the process of evolution via natural selection.</td>
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<tr>
<td>Week 3</td>
<td>Evolution continued: Population genetics and Hardy-Weinberg Equilibrium; Macroevolution: speciation, extinction</td>
</tr>
<tr>
<td>Week 4</td>
<td>Introduction to scientific classification and construction of phylogenies. Introduction to 6 kingdoms of organisms.</td>
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<td>Week 5</td>
<td>Protozoan diversity</td>
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<td>Week 6</td>
<td>Kingdom Animalia, Poriferans</td>
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<td>Week 7</td>
<td>Cnidarians</td>
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<td>Week 8</td>
<td>Platyhelminthes</td>
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<td>Week 9</td>
<td>Mollusca</td>
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<td>Week 10</td>
<td>Nematoda and Rotifera</td>
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<td>Week 11</td>
<td>Arthropoda</td>
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<tr>
<td>Week 12</td>
<td>Echinodermata and Chordata</td>
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<td>Week 13</td>
<td>Vertebrata</td>
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<tr>
<td>Week 14</td>
<td>Ecology: introduction to major concepts in the ecology of populations and communities. Discussion of the importance of maintaining diversity of life.</td>
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<tr>
<td>Week 15</td>
<td>Ecology continued</td>
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</tbody>
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2. **Attachments (Syllabus Required)**

Syllabus Attached?  ☒ Yes   ☐ No

Other Attached?  ☒ Yes   ☐ No  If yes, specify: lab syllabus
Appendix: THECB Component Area Descriptions and Skill Requirements

I. Communication (Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written, and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.)

II. Mathematics (Courses in this category focus on quantitative literacy in logic, patterns, and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.)

III. Life and Physical Sciences (Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.)

IV. Language, Philosophy, and Culture (Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.)

V. Creative Arts (Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.)

VI. American History (Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.)

VII. Government/Political Science (Courses in this category focus on consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.)

VIII. Social and Behavioral Sciences (Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals, groups, institutions, and events, examining their impact on the individual, society, and culture.)

<table>
<thead>
<tr>
<th>Foundational Component Areas</th>
<th>Skill Objectives</th>
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<tbody>
<tr>
<td></td>
<td>Critical Thinking</td>
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<td>Communication</td>
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<tr>
<td>Social and Behavioral Sciences</td>
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</table>
Sample Syllabus for General Zoology
BIOL 1313 Sec. XX, Spring 2013

Instructor: Dr. Patrick J. Lewis
Office: LDB 103
Phone: 4-3397
Office Hours: By appointment

Class: LDB 214
T/Th 12:30-1:50pm
Email: pjlewis@shsu.edu

Course Description:
This course provides an introduction to the science of zoology in an evolutionary context. Students learn about the evolution, anatomy and ecology of major representative phyla of animals. Concepts of scientific laws, theories and hypotheses form the framework for much of the course and are referenced continuously throughout the semester. Students gain a greater appreciation for the importance of other organisms and the role they play in the ecosystem. Issues of human health and impacts of human activities on other species are discussed. Lab activities are based on group work and the peer evaluation system ensures that students participate as team members. The course addresses quantitative skills (population genetics) and analysis of empirical data (phylogeny construction) through the use of problem sets and interactive lab activities.

Course Objectives:
- To apply methods of reasoning used by zoologists to describe, explain and predict the relationships and distribution of the major animal groups using the scientific method and the comparative method (to include the requirements of falsifiability, logical consistency, comprehensiveness of evidence, objectivity, replication of results, and sufficiency of evidence).
- To understand and explain interactions within and between species in both evolutionary (e.g. speciation, extinction) and ecological (e.g. symbiotic relationships including mutualism and parasitism, predator - prey interactions) contexts
- To understand the importance of maintaining species diversity for improving human health and experiences and the health of the planet in general (e.g. animals provide novel medicines, pollination of plants, seed dispersal, biological controls, bioindicators, etc.).

Required Textbooks:


Required Supplies: Scantron form no. 882-E (6) and Quizstrip form no. 815-E (8)

Attendance Policy: In accordance with University policy, I expect regular and punctual attendance. While attendance will be taken, no points will be awarded or subtracted based on your attendance.

Quizzes: There will be 4 unannounced quizzes during the semester focused on vocabulary, dates and taxonomy (names). Each quiz will count for 2% of your grade.

Chapter Reviews: Approximately every three to four weeks you will be asked to review a chapter from How to Think About Weird Things. You must read and then write a 400 word review of each chapter and
turn it in through turnitin.com on Blackboard by the date listed in the class schedule (see below). These reviews should be a thorough review of the chapter and also contain your opinions, reactions and thoughts about the chapter to receive full credit. Each review will be worth 2% of your grade. Late work is not accepted and reviews cannot be made up.

Exams: There will be five regular exams during the semester and a mandatory comprehensive final exam during the scheduled final exam period. All regular exams will consist of 75 multiple choice, true false, fill in the blank, or matching questions and will be given during the designated lecture time-slot (see accompanying schedule). I will drop your lowest regular exam score and only your four best regular exam scores will be used to calculate your final course grade (15% for each individual exam). If you miss any exam during the semester for any reason, this will be the exam you drop – you will not be allowed to take an exam late. The final exam will be a comprehensive exam of material from the entire semester and will be 100 questions (20% of your course grade is based on the final exam). The final cannot be dropped and is not optional.

Make-Up Policy: There will be absolutely no make-up examinations during the semester. If you know in advance that you will miss an exam because of a religious event or because you are conducting official Sam Houston State University business, you may make arrangements to pre-take the exam provided that you supply written verification for the reason you will miss the exam. This early exam will be an essay exam rather than the standard format.

Grading: Course grades will be assigned on a standard 10-percentage point scale (90% and above = A, 80%-89% = B, etc.). You may estimate you overall standing the class at any time by dividing the number of questions you got right on the exams (raw exam scores are posted on Blackboard for this) by the total number of questions (75 for each regular exam, 100 for the final). I will not predict what you need to make on exams to get a particular overall course grade – you can easily do this yourself. Should an error be made in scoring exams, I must be informed within a week of the time exam grades are posted. Corrections will not be considered after that period.

THERE WILL BE NO EXTRA CREDIT, NO REVIEW SESSIONS, NO REVIEW SHEETS, NO SLIDES POSTED.

Academic Dishonesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Classroom Rules of Conduct: Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones must be turned off and put away before class begins. Students are prohibited from reading, sleeping, talking at inappropriate times, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive may be reported to the Dean of Students for disciplinary action in accordance with university policy. See the attached form for more specifics on classroom behavior.

Visitors in the Classroom: Unannounced visitors to class must present a current, official SHSU Identification card to be permitted in the classroom. They must not present a disruption to the class by
their attendance. If the visitor is not a registered student, it is at the instructor’s discretion whether or not the visitor will be allowed to remain in the classroom.

**Americans with Disabilities Act:** It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subject to discrimination under any academic or Student Life program of activity. Disabled students may request assistance with academically related problems stemming from individual disabilities by contacting the Director of Counseling Center in the Lee Drain Annex or by calling (936) 264-1720. Students who have disabilities that may prevent them from fully demonstrating their abilities should contact the instructor as soon as possible to discuss accommodations necessary to ensure the students educational opportunity. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the Counseling Center.

**Religious Holidays:** Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

**Key Dates:**
- Feb 2: Last day to drop without a "Q" and receive 100% refund
- May 4: Last day to drop and resign a course; Last Class Day

**Resignation Note:**
Students may resign with a "W" grade from the 13th class day through the last class day, but prior to any final exams being taken or course completion.

**Drop Note:**
Courses may be dropped without a grade of "F" before taking an final exams. To process a "Q" drop after the online drop closes, students must come to the Registrar's Office, Estill Building Rm. 331 between the hours of 8:00 A.M. and 5:00 P.M. No schedule changes may be made after the deadline specified in the Academic Calendar.
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<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
<th>Chapter Summary Due</th>
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<tr>
<td>19-Jan</td>
<td>Intro to Science and Scientific Method</td>
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<td>24-Jan</td>
<td>Science Cont’d, Characteristics of Life</td>
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<td>26-Jan</td>
<td>Evolution</td>
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<td>31-Jan</td>
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<td>Development/Classification</td>
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<td>7-Feb</td>
<td>Protozoans</td>
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<td>6-Mar</td>
<td>Segmented Worms</td>
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<td>13-15-Mar</td>
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<td>20-Mar</td>
<td>Spiders/Crustaceans</td>
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<td>3-Apr</td>
<td>Chordates</td>
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<tr>
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</table>
The Rules

Please initial next to the following statements indicating you have read and understand them. If you feel you are unable to follow these, please find another section to attend. Understand if you do not follow these guidelines you may be dismissed from class, removed from the course all together, or referred for disciplinary action. Sign and return this document, and keep the copy for your records. You will receive no points in the course until the form is returned.

_____ Cell phones, personal music devices, handheld computers, laptops, audio or video recorders or any other electronic device must be turned off and put away before class begins.

_____ I will not be allowed to take an exam if I am late to class.

_____ There is no talking allowed in this class outside of asking the professor questions.

_____ There are no make-up exams under any circumstance unless arrangements have been made prior to the exam.

_____ There is never any extra credit given under any circumstance.

_____ Notes and PowerPoints will never be provided by the instructor. If I miss class for any reason, it is my responsibility to get the material from a fellow student.

_____ Emails to my professor will be addressed to him, the class and section will be in the email, and I will sign the email with my full name. Otherwise I understand that my email may not receive a response.

_____ I understand that Blackboard is only to be used for course related communication. Any other use is a violation of university policy and will be reported.

Name and email of two classmates:

1) 

2) 

Date __________________________ Signature __________________________ Printed Name __________________________
Cell phones, personal music devices, handheld computers, laptops, audio or video
recorders or any other electronic device must be turned off and put away before class
begins.

I will not be allowed to take an exam or quiz if I am late to class.

There is no talking allowed in this class outside of asking the professor questions.

There are no make-up exams or quizzes under any circumstance unless arrangements
have been made prior to the exam or quiz.

There is never any extra credit given under any circumstance.

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reason, it is my responsibility to get the material from a fellow student.

Emails to my professor will be addressed to him, the class and section will be in the
email, and I will sign the email with my full name. Otherwise I understand that my email
cannot receive a response.

I understand that Blackboard is only to be used for course related communication. Any
other use is a violation of university policy and will be reported.

Name and email of two classmates:

1)

2)
# BIOL 1113, GENERAL ZOOLOGY LAB

## FALL 2012

*The Syllabus is Subject to Change for Logistical and/or Pedagogical Reasons at the Discretion of the Lab Coordinator!*

<table>
<thead>
<tr>
<th>LAB DATES</th>
<th>LAB EXERCISES TO BE READ BEFORE COMING TO LAB</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-7 September</td>
<td><strong>NO LABS This Week Due to the Holiday on Monday.</strong></td>
</tr>
<tr>
<td>10-13 September</td>
<td>1. Fundamental Laboratory Skills&lt;br&gt;2. Population Genetics and Evolution</td>
</tr>
<tr>
<td>14 September</td>
<td><strong>12th CLASS DAY, last day to change lab schedule!</strong></td>
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<tr>
<td>17-20 September</td>
<td>3. Phylogeny Construction: Primate Skulls and Protein Sequences</td>
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<tr>
<td>24-27 September</td>
<td>4. Protista</td>
</tr>
<tr>
<td>1-4 October</td>
<td>5. Porifera&lt;br&gt;6. Cnidaria</td>
</tr>
<tr>
<td>8-11 October</td>
<td>7. Platyhelminthes&lt;br&gt;8. Nematoda</td>
</tr>
</tbody>
</table>
| 15-18 October 2012   | **Mid-Term Exam** given during your regular lab time. Chapters 1-8. Expect MANY fill-in-the-blank practical questions. *Taken and scored as individuals – this is NOT a GROUP test!*
<p>| 19 October 2012      | <strong>Check-Point Peer Evaluation Due This Week!</strong>&lt;br&gt;<strong>Mid-term Make-up Exam</strong>, LDB 339, 9:30 a.m. You MUST notify Mrs. Rose (294-1542) before 4:00 p.m. on Thursday, 18 October 2012. You <em>must</em> bring appropriate documentation for your <em>totally unavoidable</em> absence from a major exam! |</p>
<table>
<thead>
<tr>
<th>Date Range</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-25 October</td>
<td>9. Mollusca</td>
</tr>
<tr>
<td></td>
<td>10. Annelida</td>
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<tr>
<td>29 October -- 1 November</td>
<td>11. Arthropoda</td>
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<td></td>
<td>12. Echinodermata</td>
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<tr>
<td>5-8 November</td>
<td>13. Chordata</td>
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<td></td>
<td>14. Osteichthyes</td>
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<td></td>
<td>15. Amphibia</td>
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<tr>
<td>12-15 November</td>
<td>16. Reptilia</td>
</tr>
<tr>
<td></td>
<td>17. Aves</td>
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<tr>
<td>19-23 November 2012</td>
<td>No labs this week due to the Thanksgiving Holiday!</td>
</tr>
<tr>
<td>26-29 November</td>
<td>18. Mammalia</td>
</tr>
<tr>
<td>30 November 2012</td>
<td><strong>Last Day for BIOL 1113 Lab Students to obtain the Lab Coordinator’s signature to drop the course.</strong> You must see Mrs. Rose in LDB 300-F by 3:00 p.m. All BIOL 1113 drops must be in the Registrar’s Office by 9:00 a.m. on Monday, 3 December 2012.</td>
</tr>
<tr>
<td>3-6 December 2012</td>
<td><strong>Final Exam</strong> given during your regular lab time. Chapters 9-18. Expect MANY fill-in-the-blank practical questions. <strong>Taken and scored as individuals – this is NOT a GROUP test!</strong></td>
</tr>
<tr>
<td>7 December 2012</td>
<td><strong>Final Peer Evaluation Due This Week!</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Make-up Final Exam</strong>, LDB 339, 9:30 a.m. You MUST notify Mrs. Rose (294-1542) before 4:00 p.m. on Thursday, 6 December 2012. You must bring appropriate documentation for your totally unavoidable absence from a major exam!</td>
</tr>
</tbody>
</table>

Laboratory Coordinator: Mrs. Rose  
LDB 300-F  
(936) 294-1542  
bio_lah@shsu.edu
Responsibilities of The Lab Student

Preparation  Before your lab period, read the laboratory exercise thoroughly. Underline items of procedure and terms which are not clear to you. Careful reading of the assignment prior to the laboratory is like studying a road map before making a trip; it helps to know where one is going.

Use and Care of Equipment  Understand the directions for proper use of equipment prior to turning knobs or flipping switches. The life and usefulness of even the simplest item of equipment is lengthened by observing proper care and respect.

Work Area  Keep your work area neat and clean. Paper, specimens, and used chemicals are to be disposed of in the receptacles indicated by your instructor. Do not leave your lab table cluttered. Do not dump trash items in the sinks or broken glass containers! Before leaving the laboratory be certain that your lab table is clean, all equipment and lab materials are returned to the designated storage areas, and you lab stool is pushed back in place at the table.

Laboratory Safety  Use care and respect in handling all chemicals. Clothing can be damaged by spills, and injury to the skin can occur. When a caustic chemical comes in contact with the skin or in the eyes, immediately flood the affected area with copious amounts of water. The eye wash station is located at one of the sinks in the laboratory. Flushing the affected area for at least 15 minutes is recommended. Clothing that is contaminated should be removed and washed before being worn again. The handling and heating of chemicals should be done with care. Use protective goggles to prevent eye injury. First aid kits are in each lab room as are fire extinguishers.

Attendance Policies

This course abides by University Policy and Regulations concerning attendance (See the Undergraduate Catalog). Accordingly, “regular and punctual attendance is expected of each student at Sam Houston State University. In a course such as this, in which group effort is such a significant part of the grade, students genuinely need to come to class so that they can contribute to their group’s success. Those who are prepared and contribute positively will be highly valued by their group! In short, attendance matters; so, please take advantage of the opportunity to learn, to help your group, and to excel by coming to all classes.

It is almost impossible to “make-up” a lab. Your work is done with your group! The one individual quiz grade, one group quiz grade and one group lab exercise grade that is dropped is your only reliable means of covering an absence.

1. In addition to the required attendance policy, it is important that you please come to class on time. Also, please do not leave the class room early unless you are sick or have cleared it with the lab instructor before class begins.

2. Make-up exams are only allowed based on the lab coordinator’s approval. In order for an exam to be made up, some form of documentation MUST be provided, such as a doctor’s note, a legal notice, a note from the SHSU athletic/orchestra/choir/band director, etc... This is not “High School,” a note from Mom or Dad is not valid documentation.
3. **School Related Absences** Students involved in school related events and activities will be allowed to reschedule their lab class when conflicts arise. *Prior to the absence*, the student must bring a written confirmation of participation in the activity from the faculty sponsor to the Laboratory Coordinator in LDB 300-F. Arrangements will be made for the student to make up the absence. *You Must Do This BEFORE your absence!* *If you contact Mrs. Rose after the fact, it is too late.*

**Academic Honesty:** All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in academic experiences both in and out of the classroom. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. Removing a copy of the quiz or exam from the lab room is considered academic dishonesty. Accepting a copy of a quiz or exam outside of the lab room is also academic dishonesty. Plagiarizing any materials from any source is also academic dishonesty. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action that is consistent with university policies. Please read the following:

Students are encouraged to study in groups to prepare for lab pre-tests and complete lab exercises. However, “group effort” is definitely not permitted when taking the Mid-term or Final Exams! This will result in an automatic zero on the exam. Two such occurrences will result in an F in the course. Any special written assignments MUST be written by the individual receiving credit for the assignment.

**Proper Course Behavior:** All of these rules are standard and are based on common courtesy, respect, and honesty.

1) Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. *Cellular telephones, pagers and ALL other electronic equipment must be turned off before class begins.* Students are prohibited from eating or drinking in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

2) Please come to class on time—there is no reason to be late to class on a frequent basis. If you arrive late, you may miss the quiz and not be allowed to make up the missed quiz or work.

3) Please remain in class until it is finished. *Leaving early will count as an absence unless it is an emergency.*

4) **Due to Safety Requirement:** Do not bring food or drink into the lab. Do wear enclosed shoes to lab. Please do not wear sandals or any other type of open shoe in the lab room.

5) Hats must be removed and put away during lab.

6) During lab and especially during quizzes and exams, cell phones and any other equipment capable of receiving, recording and/or transmitting information, must be put away in a book bag or purse. In short, it must not be readily accessible or accessed during an exam. *The use of such devices during a quiz or exam will result in a zero for that test and possibly the lab course.*
Chatting on the phone during lab (even in the hallway) is a waste of your lab time as well as your group's time.

7) **DO NOT LEAVE THE ROOM DURING AN EXAM or QUIZ!** If this happens, the test will be taken up and you will NOT be allowed to finish.

8) **Visitors in the Classroom:** Unannounced visitors to the classroom must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom. This policy is not intended to discourage occasional visiting of classes by responsible persons.

9) **Americans with Disabilities Act:** Any student seeking accommodations should go to the Counseling Center and Services for Students with Disabilities at the very beginning of the semester and complete a form that will grant permission to receive special accommodations. Please do not wait until test day to do this – it must be done at the beginning of the semester. Accommodations cannot be made retroactively.

10) **Religious Holy Days:** Any student that will miss lab due to Religious Holy Day(s) must notify the Laboratory Coordinator in writing BEFORE the absence occurs and present appropriate documentation of the reason for the absence. Any assignment or exams that will be missed due to the absence should be completed within a reasonable time after the absence, or preferably before the absence.

11) **Special Circumstances:** If unusual circumstances arise during the semester, such as a medical problem, death in the family, etc., which adversely affects your attendance PLEASE discuss this with the lab coordinator immediately and provide documentation. Under these conditions, we will gladly do our best to accommodate your situation. However, if you wait until after-the-fact, at the end of the semester, to let the lab coordinator know that you were experiencing these adverse circumstances, there is nothing that can be done about it at that time. **We cannot retroactively make accommodations and do not give extra credit assignments to make up for grade deficiencies.**

**Grading Policies**

**Lab grades will be determined as follows:**
- 30% = Average of daily individual pre-lab quiz
- 15% = Average of daily group lab quiz X peer evaluation grade
- 15% = Average of daily group lab work grade X peer evaluation grade
- 20% = Mid-Term Exam (this is an individual grade)
- 20% = Final Exam (this is an individual grade)

**DROP GRADE POLICY**

Students with no absences will be allowed to drop their lowest individual lab quiz and lowest group lab quiz grade and lowest group lab exercise score earned. **If a student misses a lab** during the semester and does not (or cannot for whatever reason) make it up the same week, that set of zeroes will be the student’s one and only drop grade set. Use this set of drop grades judiciously, save it for an emergency!
Cooperative Learning and Peer Evaluation:

In this class, students will be divided into teams by the instructor in such a way as to ensure maximum diversity in the team and to prevent cliques from forming in the class. Each team will consist of about 6 students which will work together throughout the semester on lab exercises. As you will see, team scores are usually better than individual scores, and so this process normally improves an individual's grade. In addition, team effort helps everyone learn the material better because everyone is involved in teaching one another. So, when individuals participate appropriately in this process, individuals normally do better on tests as a result.

Many students are initially uneasy about the idea of working in teams because it is often the case that some members of the team end up doing all or most of the work, while others do little or nothing. This will **not be a problem** in this course because of both the peer evaluation process described below, as well as the importance of the evaluation to a student's grade. The procedures for performing peer evaluations are as follows:

**Peer Evaluation Process**

If your team consists of 6 members, you will be given 50 points at the end of the semester to distribute among the other members of the team. *You do not give points to yourself.* (If you are in a team of 5 members, you will be given 40 points, etc...) If you believe that everyone contributed equally to the team work, then you would give everyone 10 points. If everyone on the team feels the same way, then everyone receives a total of 50 points, which is an average of 10 points (50 points/5 = 10 points). You must be fair in your assessments, but if someone in your team did not contribute adequately, then you should give them fewer points. Of course, if someone worked harder than the rest, then give that person more than 10 points. **The individual's score is equal to the average of the points he/she received from their peers.** This score is then used to determine what proportion of the team’s final score will be awarded to the individual at the end of the semester. Anyone that receives an average of 10 or more points receives 100% or more of the team score. If he or she receives an average of 9, then that person will receive 90% of the team score, and so on.

**You must also use the following criteria when assigning points:**

1) Don’t give anyone a grade they do not deserve.

2) You cannot give anyone on your team more than 15 points. (This prevents people from giving their friends an unfairly large amount of points, which would necessarily hurt other members of the team.)

3) You do not have to assign all of your points. (This means that you do not have to give your remaining points to someone who you feel does not deserve the points.)

4) **Anyone receiving an average of less than 7 points will fail the course regardless of any other points that individual has earned throughout the semester. This is an all-or-nothing rule.**
It is the last rule that ensures that everyone will contribute to the team’s efforts! Also, the fact that the score is an average prevents anyone that might be unfair in their awarding of points from single-handedly determining the final grade of a team member. This peer-evaluation method has been used in many universities and works very well. Students like it.

For example, Linda might receive peer evaluations scores of 8, 11, 9, 10, and 8, for a total of 46, which is an average of 9.2, or 92%. John might receive 12, 11, 11, 13 and 14 for a total of 61, which is an average of 12.2, or 122%. Billy, who skipped class and contributed very little to the group, might receive scores of 2, 5, 3, 5, and 2 for a total of 17 points and an average of 3.4, or 34%. So, Linda received 92% of the group’s overall grade for the semester, John received 100% of the group’s overall score, and Billy -- unfortunately - failed the course.

This evaluation process will be completed twice during the semester. The first will be completed the week after the mid-term exam as a “check-point” so that any team member not doing well can be advised to increase their effort. The second time (the one that actually impacts the grades) will be completed at the end of the semester. Each time the evaluation is completed, it should be done in private and kept confidential. Do not discuss the evaluation with your team members or complete it in their presence. Either submit your peer evaluation form confidentially through email or place it in an envelope to turn in to your lab instructor during lab.

The Individual Pre-Lab Quiz (30% of your overall lab grade) are quizzes that cover the reading material upon which the lab is based. So, by reviewing relevant reading material in the lab manual, one can readily prepare for these quizzes. These quizzes are generally multiple choice (scantron 815-B) but may include an occasional short answer essay question. The pre-lab quizzes are completed by individuals at the beginning of the lab period.

Individual Work to Be Completed and Checked Off by the lab instructor at the beginning of the lab period will include many of the “Check Your Progress” questions and the “Questions for Review” for each chapter to be covered. Starting the second week of lab your lab instructor will check your lab manual when you arrive in lab to determine if you have completed the assigned pre-lab work. Each week is worth 5 points towards a total of 45 points; the percentage you earn will be worth one individual quiz grade to average into your total. Example: you come to eight of the nine lab weeks with your pre-lab assignment completed; that will equal 5 x 8 = 40, 40/45 = 88.8% as one of your weekly quiz grades.

Pre-Mid-Term and Pre-Final Exam Taxonomy Quiz, multiple choice (scantron 882) quizzes. One quiz will be given the week before the mid-term exam and can be used to replace a low existing individual quiz grade. The second quiz will be given the week before the final exam and can be used to replace a low individual quiz score from the last half of the semester.

The Group Post-Lab-Quiz (15% of your overall lab grade) a quiz that covers the reading material upon which the lab is based and anything covered in lab. These quizzes are fill-in-the-blank and short answer essay quizzes. The post-lab quizzes are completed by your learning TEAMS during the next lab period; the average of your group post-lab quizzes will be multiplied by your peer evaluation score to determine your fair share of the grade. Only the team members present for the quiz will receive credit for that quiz!
The lab activities and corresponding worksheet (15% of your overall lab grade) are also completed as a team. Every individual team member present MUST complete the lab exercise in their own lab manual BEFORE the lab instructor will accept the group answer sheet. The average of your group lab exercise score will be multiplied by your peer evaluation score to determine your fair share of the grade. Only team members present (with a completed lab manual) will receive credit for the lab exercise that day.

Mid-Term & Final Exam (a total of 40% of your overall lab grade)  These will review the material covered in lab. Questions may be worded in a fashion very similar to those seen on the weekly quizzes and will include numerous fill-in-the-blank (possibly some multiple choice) practical questions. There will be approximately 100-150 questions. You must take these exams with your regularly scheduled lab section. If you cannot make that time you must take it during the scheduled make-up exam time seen on the first two pages of your syllabus. These will be taken and scored as Individuals!

Any student taking a “make-up” mid-term or final exam must present appropriate documentation for their totally unavoidable absence from their regularly scheduled major exam. Example: doctor’s note requiring an absence from class, obituary, court summons, proof of incarceration during exam time, etc. These students must also present a photo ID when attending the “make-up” exam. If a student misses their regular exam and the make-up exam time stated on the syllabus, they will either not be allowed to make-up the exam, or they will be required to complete an essay exam pending presentation of appropriate documentation. No student will be allowed to complete a make-up exam without appropriate documentation. No Exceptions! If you are sick enough to miss a major exam, then you really need to see a doctor! Inappropriate reasons for missing an exam include, but are not limited to: “I forgot,” “I didn’t know it was this week,” “My alarm clock didn’t go off,” “I couldn’t find a parking space,” “I had/have another test the same day,” “I’m going on vacation,” etc.

Grades will be assigned according to the following scale:

A  90-100%
B  80-89%
C  70-79%
D  60-69%
F  0-59%

There will be NO EXTRA CREDIT assignments!

If you cannot competently complete the regularly required work during the semester, there is absolutely no reason to think that you can complete any EXTRA assignment work.

There will be NO BONUS QUESTIONS!

There will be NO CURVE of any kind on any grades!
Lab Coordinator: Mrs. Rose  
LDB 300-F  
(936) 294-1542  
bio_lah@shsu.edu

- **Colored pencils** are very helpful when drawing specimens and labeling diagrams. You are strongly encouraged to bring some for your own personal use.

- **You are required** to answer the pre-lab questions and label the diagrams in your lab manual each week before you actually come to lab. This will prepare you to find the structures under the microscope and help you make better use of your lab time.

- **Required Books:**
  

- **Laboratory Manuals should be purchased NEW each semester. If you have one from last semester, you will still need a new one. You MUST re-complete any work done in previous semesters.**