November 3, 2015

MEMORANDUM

TO: Robert Strawser, Speaker, Faculty Senate
FROM: Janice Epstein, Co-Chair, Core Curriculum Council
       Andrew Klein, Co-Chair, Core Curriculum Council
SUBJECT: Approval actions of the Core Curriculum Council

On November 2, 2015, the following course was approved for addition to the Texas A&M University Core Curriculum. We recommend that this addition to the Core Curriculum, effective fall 2016, should be considered and approved by the Texas A&M University Faculty Senate.

Life and Physical Sciences

ENTO 320 Honey Bee Biology

In addition, two courses were reviewed and approved for recertification in the core curriculum, in accordance with the Faculty Senate rules for the 2014 core curriculum. “To remain in the core, courses must be recertified on a four-year cycle. To provide for a more evenly balanced recertification process, courses in the first round of approval will be randomly assigned to a three-, four-, five- or six-year initial approval period and then move to a regular four-year cycle.” (February 11, 2013).

Recertified

Communication COMM 205 Communication for Technical Professionals
Life and Physical Sciences BIOL 113 Essentials in Biology
Life & Physical Sciences
Texas A&M University

Core Curriculum Cover Sheet

Initial Request for a course to be considered for the Fall 2015 Core Curriculum

1. This request is submitted by (department name): Entomology

2. Course prefix and number: ENTO 320

3. Texas Common Course Number: N/A

4. Complete course title: Honey Bee Biology

5. Semester credit hours: 3

6. This request is for consideration in the following Foundational Component Area:

☐ Communication
☐ Mathematics
☒ Life and Physical Sciences
☐ Language, Philosophy and Culture

☐ Creative Arts
☐ American History
☐ Government/Political Science
☐ Social and Behavioral Sciences

7. This course should also be considered for International and Cultural Diversity (ICD) designation:

☐ Yes
☒ No

8. How frequently will the class be offered? every fall, spring, and 10-week summer semester

9. Number of class sections per semester: 2 (exception: only 1 section in summer)

10. Number of students per semester: 245 seats per regular semester


This completed form must be attached to a course syllabus that sufficiently and specifically details the appropriate core objectives through multiple lectures, outside activities, assignments, etc. Representative from department submitting request should be in attendance when considered by the Core Curriculum Council.

12. 

13. Submitted by: Dr. David Ragsdale for Dr. Julianna Rangel

Dr. David Ragsdale

Course Instructor

Date 10-23-2015

14. Department Head

Date

15. College Dean/Designee

Date

For additional information regarding core curriculum, visit the Texas Higher Education Coordinating Board website at www.thecb.state.tx.us/corecurriculum2014

See form instructions for submission/approval process.
Texas A&M University
Core Curriculum
Initial Request for a Course Addition to the Fall 2015 Core Curriculum

Foundational Component Area: Life and Physical Sciences

In the box below, describe how this course meets the Foundational Component Area description for 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.

The proposed course must contain all elements of the Foundational Component Area. How does the proposed course specifically address the Foundational Component Area definition above?

ENTO 320 (Honey Bee Biology) uses the honey bee as a model organism to illustrate the processes associated with the scientific method. Throughout the course, students actively discover and apply their knowledge to basic concepts in biology, entomology, sociobiology, and the evolution of communication, using honey bees as a model. The scientific foundation acquired during lectures is then applied to real-world settings to explain and predict natural phenomena involving honey bees. For example, students apply their knowledge of honey bee biology to infer best management practices used in apiculture. They will also describe and explain the spread of Africanized bees in the Americas. Students will examine the interaction of honey bees with plants and assess the impact of honey bee pollination services on agro-ecosystems. Students will incorporate the material covered in class to review historical and present-day human associations with honey bees and the environment. Further, students will be challenged to investigate these associations within the differing contexts of natural settings, agricultural landscapes, and managed honey bee operations.

Core Objectives

Describe how the proposed course develops the required core objectives below by indicating how each learning objective will be addressed, what specific strategies will be used for each objective and how student learning of each objective will be evaluated.

The proposed course is required to contain each element of the Core Objective.

Critical Thinking (to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information):

The following learning outcomes will require the development of critical thinking skills:

1. Examine the principles of the scientific process
2. Relate basic and applied biological principles to the honey bee model
3. Assess impacts of honey bees on humans and the environment
4. Interpret technical and scientific writing

These learning outcomes/objectives will be achieved with the following strategies:

Video project: Students are required to find and interpret at least five sources for the video project, three of which must be peer-reviewed scientific papers. Students will work in groups of 2-5 people (depending on the class size), to create a 3-5 min video that will be uploaded to Youtube for group analysis of the video content as well as instructor assessment. Each team will ultimately develop new educational material about a favorite honey bee topic that can be viewed by the public (with student permission). Each video will be peer-reviewed by the rest of the class (thus enabling critical thinking), and each reviewer is required to provide constructive feedback on the video, including their favorite aspects, as well as how the video could be improved. Student progress will be assessed by the peer-review, group feedback, and instructor grading of the final
Texas A&M University  
Core Curriculum  
Initial Request for a Course Addition to the Fall 2015 Core Curriculum

content of the video product as well as the quality and depth of the content used. Rubrics will be provided for peer review and used in instructor grading.

Group Discussion Assignments: Students will be responsible for interpreting and objectively analyzing scientific articles in the field of honey bee biology. Student progress will be measured by asking students to write specific conclusions and propose inquiry-based hypotheses with concepts for testing based on the scientific articles read in class. Students will also be able to propose hypothetical future studies that could build on the results provided by the articles. High-order critical thinking skills will be developed by conducting group self-assessment summaries of their discussion topics using a rubric. Student preparation will be assessed by providing a summary of the assigned article before the start of the class period in which it will be discussed, to ensure that students come prepared with insightful questions and their own interpretation of the literature.

Individual assignment: Observational Science. Students will individually read and interpret scientific papers on honey bee biology. To perform successfully on this individual assignment, each student must identify the following aspects from an article: prior knowledge, inferences, and data. Assignments will be assessed using a grading rubric, and feedback will be provided post grading.

Communication (to include effective development, interpretation and expression of ideas through written, oral and visual communication):

The following learning outcomes will require the development of communication skills:

1. Relate basic and applied biological principles to the honey bee model
2. Assess impacts of honey bees on humans and the environment
3. Interpret technical and scientific writing

These learning outcomes/objectives will be achieved with the following strategies:

Video project: Students will develop a 3-5 min. video and present it to the class with an oral introduction of the reason why they chose the topic, the input of each team member on the content and production of the video, and their favorite aspect of the team project. The video itself will be a visual work entailing some specific area of study on honey bee biology, which will be decided upon by each group. Progress toward critically evaluating the content available in the media for this project will be assessed through peer-review, group member feedback and instructor grading.

Group Discussion Assignments: Students will be responsible for interpreting and objectively analyzing scientific articles in the field of honey bee biology. Student progress will be measured by asking students to write specific conclusions and propose inquiry-based hypotheses regarding the scientific articles read in class. Students will also be able to propose hypothetical future studies that could build on the results provided by the articles. High-order critical thinking skills will be developed by conducting group self-assessment summaries of their discussion topics using a rubric. Student preparation will be assessed by providing a summary of the assigned article before the start of the class period in which it will be discussed, to ensure that students come prepared with insightful questions and their own interpretation of the literature.

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

The following learning outcomes will require the development of empirical and quantitative skills:

1. Examine the principles of the scientific process
2. Relate basic and applied biological principles to the honey bee model

These learning outcomes/objectives will be achieved with the following strategies:

Individual Assignment: Data handling and analysis. Students will be given raw quantitative data from a scientific
Texas A&M University
Core Curriculum

Initial Request for a Course Addition to the Fall 2015 Core Curriculum

project involving honey bee biology. In this activity, students will generate figures or tables that best illustrate the data provided. Students will analyze and present the data as well as interpret and summarize the results using high-order critical thinking skills. Students will then present their conclusions in a group setting, and group members will provide feedback on their fellow students’ data analysis, and will provide a list of potential future hypotheses that could be tested based on the results obtained. Assessment will be performed by the instructor using a grading rubric.

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

The following learning outcomes will require the development of teamwork skills:

1. Examine the principles of the scientific process
2. Relate basic and applied biological principles to the honey bee model
3. Assess impacts of honey bees on humans and the environment
4. Interpret technical and scientific writing

These learning outcomes/objectives will be achieved with the following strategies:

Video project: Students will develop a 3-5 min. video and present it to the class with an oral introduction of the reason why they chose the topic, the input of each team member on the content and production of the video, and their favorite aspect of the team project. The video itself will be a visual work entailing some specific area of study on honey bee biology, which will be decided upon by each group. Progress toward critically evaluating the content available in the media for this project will be assessed through peer-review, group member feedback and instructor guidance.

Group Discussion Assignments: Students will be responsible for interpreting and objectively analyzing scientific articles in the field of honey bee biology. Students must discuss sections of the article in small groups and coordinate summarizing statements to present to the class orally and submit for grading in written form. Summaries are followed by collective discussion of the article including critique, questions, and hypothetical future work. Students must be respectful of other points of view and are encouraged to answer classmate questions. Student preparation will be assessed by providing a summary of the assigned article before the start of the class period in which it will be discussed, to ensure that students come prepared with insightful questions and their own interpretation of the literature. Progress will be assessed using a rubric to judge the quality of summaries completed in groups and the level of participation during class discussion.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
Course title and number: ENTO 320 section 500 (CRN 24256): Honey Bee Biology
Term and credit hours: Spring 2016, 3 credit hours
Meeting times and location: Tuesdays and Thursdays, 5:30-6:45 PM, HPCT 102

Course Description and Prerequisites
This course provides an introduction to honey bee biology and beekeeping practices to science and non-science majors. ENTO 320 uses the honey bee as a model organism to learn about the scientific process, as well as basic and applied concepts in biology, entomology, sociobiology, and the evolution of communication. Prerequisites: junior or senior classification or approval of instructor.

Student Learning Outcomes
- Examine the principles of the scientific process
- Relate basic and applied biological principles to the honey bee model
- Assess impacts of honey bees on humans and the environment
- Interpret technical and scientific writing

Instructor Information
Name: Dr. Juliana Rangel-Posada
Telephone number: 979.845.1074
Email address: jrangal@tamu.edu
Office hours: Tuesdays, 3-5:00 PM CST
Office location: HPCT 309

Textbook and/or Resource Material
Required text: *Honey Bee Biology and Management* by Dewey Caron (2013) Wicwas Press, MI

Grading Policies

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Number</th>
<th>Point Value</th>
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<tbody>
<tr>
<td>Quizzes</td>
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<tr>
<td>Exams</td>
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<tr>
<td>Final</td>
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<tr>
<td>Individual Assignment</td>
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<tr>
<td>Group Discussion</td>
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<tr>
<td>Video Project</td>
<td>1</td>
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Total Points Possible: 1000

Attendance and Make-up Policies

The university's attendance policy states that class attendance is the responsibility of individual students. Students are expected to attend class and to complete all assignments. I will not be taking attendance; however, doing well in this course requires your presence. Please inform me of university excused absences to make up missed in-class work. Notifications should be sent prior to scheduled absences or by the end of the second working day after unexpected absences. The university's rules for excused and unexcused absences are described online at http://student-rules.tamu.edu/rule07. I do not accept late work without a university excused absence.

Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
<th>Week</th>
<th>Assignment</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Lecture 1 (L1)</td>
<td>Course introduction and syllabus overview</td>
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<tr>
<td></td>
<td>L2</td>
<td>L1: Introduction to honey bee biology, (Text Ch. 1)</td>
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<td>L2: Taxonomy and phylogenetic principles (Ch. 2)</td>
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<td>2</td>
<td>L3</td>
<td>L3: Diversity within the genus <em>Apis</em> (Ch. 2)</td>
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<td>Quiz 1, L4</td>
<td>Quiz 1</td>
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<td>L4: Defining the Superorganism (Ch. 3 &amp; 4)</td>
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<td>L4, cont.</td>
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<td>Exam 1</td>
<td>Exam 1</td>
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<td>4</td>
<td>L5</td>
<td>L5: External anatomy (Ch. 5)</td>
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<td>L5, cont.</td>
<td>L5: External anatomy, continued (Ch. 5)</td>
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<td>L6: Internal anatomy (Ch. 5)</td>
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<td>L7</td>
<td>L7: Development, nutrition, and cast differentiation</td>
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<td>- Individual assignment 1</td>
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<td>Exam 2</td>
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<td>L8</td>
<td>L8: Nesting biology (Ch. 6)</td>
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<td>7</td>
<td>L9</td>
<td>L9: Age polyethism</td>
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<td>- video project groups formed</td>
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<td>L10</td>
<td>L10: Foraging and communication (Ch. 7)</td>
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<td>8</td>
<td>Quiz 3</td>
<td>Quiz 3</td>
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<td></td>
<td>L10, cont.</td>
<td>L10: Foraging and communication, continued (Ch. 8)</td>
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<td>L11</td>
<td>L11: Reproductive ground plan</td>
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<td>9</td>
<td>L11, cont.</td>
<td>L11: Reproductive ground plan, continued (Ch. 8)</td>
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<td>Exam 3</td>
<td>Exam 3</td>
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<td>10</td>
<td>L12</td>
<td>L12: Pheromones and communication</td>
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<td>L12, cont.</td>
<td>L12: Pheromones and communication, continued</td>
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<td>11</td>
<td>L13</td>
<td>L13: Collective decision making (Ch. 9)</td>
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<td>Quiz 4</td>
<td>Quiz 4</td>
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<td>L14</td>
<td>L14: Biology of swarming and mating</td>
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<td>12</td>
<td>L14, cont.</td>
<td>L14: Biology of swarming and mating, continued</td>
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<td>L15</td>
<td>L15: History of Beekeeping (Ch. 9 &amp; 17)</td>
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<td>L16</td>
<td>L16: Africanized and tropical honey bees (Ch. 19)</td>
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<td></td>
<td></td>
<td>- Individual assignment 2</td>
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<tr>
<td>Week</td>
<td>Lecture (L)</td>
<td>Topic / Assignment due</td>
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</tbody>
</table>
| 13   | L17         | L17: Honey bee pests and diseases (Ch. 19 & 20)  
          | Holiday       | Thanksgiving Holiday   |
| 14   | Exam 4      | Exam 4                 |
          | Video projects | Final reports of group video projects |
| 15   | Review      | Redefined Day- Thursday class  
          | Reading Day    | Wrap up of course, Q&A prior to final exam  
          | Final Exam     | Reading Day, no classes  
          |               | Final Exam: as listed in Final Exam schedule:  
          |               | http://registrar.tamu.edu/general/finalschedule.aspx |

**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](http://disability.tamu.edu)

**Academic Integrity**

You are expected to work individually and only use the course materials for all assignments, unless you are working on a group project. Unauthorized use of someone else's help or knowledge for your own assignments will be considered cheating and will be treated and penalized as such.

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

[http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)
Recertification
Texas A&M University

Core Curriculum Course Recertification - PILOT

Cover Sheet

1. Course prefix and number: **Biol 113**
2. Complete course title: *Essentials in Biology*
3. This request is submitted by (department name): Biology
4. Contact information for department representative coordinating Recertification (name): Ira F. Greenbaum
   E-mail: i-ggreenbaum@tamu.edu
5. Faculty member from whom class sets were collected (name): Asha Rao
   E-mail: aarao@bio.tamu.edu

8. Indicate the Foundational Component Area this course is in:
   - Communication
   - Mathematics
   - Life and Physical Sciences
   - Language, Philosophy and Culture
   - Creative Arts
   - American History
   - Government/Political Science
   - Social and Behavioral Science

9. Indicate the semesters this course has been taught and the enrollment each semester taught:
   - Fall 2014 188
   - Spring 2015 141
   - Summer 2015
   - Fall 2015 168
   - Spring 2016
   - Summer 2016

10. Attach the course syllabus

11. Submitted by:
[Signature]
Ira F. Greenbaum
Director, Biology Lower Division Instruction

Approval:
[Signature]
Wayne H. Versaw

12. Wayne Versaw, Associate Department Head

13. To submit recertification materials, follow directions on Instructions for the Core Curriculum Recertification Cover Sheet.
Foundational Component Area: Life and Physical Sciences.
In the box below, describe how this course met the Foundational Component Area description for 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.

Biology 113 Essentials of Biology and Essentials of Biology Lab is a one-semester survey of basic biological principles highlighting chemical basis of life, cell biology, bioenergetics, genetics, evolution, diversity, form/function, the interaction of organisms with their environment and how each of these impact the human experience. Course includes a weekly laboratory component that implements use of the scientific method to reinforce and provide supplemental information related to lecture topics.

Core objectives for the Life and Physical Sciences Foundational Component Area:
1. Critical Thinking: to include creative thinking; innovation; inquiry; and analysis, evaluation, and synthesis of information
2. Communication: to include effective development and interpretation and expression of ideas through written, oral, and visual communication
3. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
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

For one representative course section (open to all majors, including a general population of students, not an Honors Section) taught in the year prior to this recertification request:
1. Describe how students are informed of the core objectives being addressed in this core curriculum course.
   The students are initially informed of the of the course core objectives as specified in the Learning Outcomes statement in the course syllabus. In lecture these are reinforced throughout the semester with the introduction of each topic. Additionally, each lab starts with instruction of the specific lab objectives (as specified in the lab manual) and ends with a summary of how the lab exercise(s) address the specific objectives.

2. Describe how the course fostered student development related to each of the four core objectives.
   Critical Thinking:
   The scientific method is the fundamental basis of both lecture and lab. Lectures expose students to historical scientific experiments allowing them to hypothesize possible outcomes, reinterprets results, and explore alternative methodologies. Particular lecture topics (DNA profiles, cancer causes/treatments, Y-chromosome analysis, mitochondrial DNA interpretations) require students to examine, infer, compare, and contrast data. Lecture exams provide a variety of questions to assess students’ ability for critical thinking, analysis, application, and synthesis of these course topics. The laboratory provides a hands-on, active learning approach with scientific method based exercises that support students developing their own hypotheses, and independently generating, analyzing, and interpreting data. Experimental conclusions are critiqued, evaluated and summarized in quizzes, homework and in-class assignments.

Communication:
Students interpret laboratory experimental results in written in-class and homework assignments implementing graphs, tables, figures, and text. Lab introductions and summaries involve instructor/student interaction with examination and summarization of concepts through the vehicle of review questions. Labs conclude with an instructor/student interactive summary during which students orally respond to and ask questions. Both lecture and lab utilize visual communication through interpretation and analysis of data presented in graphs, tables and figures.

Empirical and Quantitative Skills:
All laboratory exercises involve the generation and/or manipulation and subsequent analysis of numerical data. These data are presented and summarized in tabular and/or graphic form for homework and in-class assignments and quizzes. Lecture topics, specifically biological chemistry, STR (short-tandem repeat) analysis, fossil dating, and genetics, also require students to manipulate and interpret numerical data. Students’ aptitude in these practices are evaluated via computational problems on lecture exams, weekly lab quizzes and graded homework and in-class assignments.

Teamwork:
The majority of laboratory exercises require students to work in groups (typically of four students). Different groups or members of each group typically perform separate components of the lab exercise; the groups or group-members then interact to produce a set of group-compiled results. Each student subsequently uses the group-compiled results as the basis for his/her written lab assignment (in-class or homework). Teamwork is assessed by direct observation by the lab instructor and the assignment of appropriate participation points. During interactive lab summaries and lecture discussions of specific experiments, students have the opportunity to consider different explanations of data and how these might yield different points of view. During lecture, students have the opportunity to interact with classmates to solve problems presented via a classroom interactive media mechanism. Students may discuss the problem, assist others with understanding the concept, and then independently infer and submit their answers electronically (via Top-Hat Monocle software).

3. Describe how student learning of each objective was evaluated. Include explanation of materials used in lecture or assigned as required reading along with an evaluative summary of student learning related to the core objective.

The primary evaluation of lecture learning objectives is done by four major exams (three one-hour and a two-hour comprehensive final exam) all of which are multiple-choice format. Additional learning assessment in lecture is done by interactive questioning either by group response or individual response to “clicker” questions. In each laboratory session (except the first) there is a weekly quiz (12 total) which are a combination of written and practical (experimental set-up or data-based) questions; practical questions comprise a minimum of 30% of each quiz. There are also 11 homework and in-class written assignments. All assessments pertain to the specific aspects of the Learning Outcomes and correspond to one or more of the core objectives of the Life and Physical Sciences Foundational Component Area.
SPRING 2015 – SYLLABUS-BIOLOGY 113
Sections 501-505
TR 12:45-2:00p, BSBE 115

Professor: Dr. Asha Rao
Office: 320A HELD
Office Hours: TR 9:30-11:00am or by appointment
E-mail: arao@bio.tamu.edu
Phone: 979-862-1108

COURSE DESCRIPTION: Biology 113 is a one-semester lecture course (3-credits) in introductory biology for non-majors. The course covers the chemical basis of life, cellular and molecular biology, genetics, evolution, biodiversity, and interaction of organisms with their environment.

LEARNING OUTCOMES: Biology is the scientific study of life. The main objective of this course is to introduce students to the fundamentals of biology by exploring newsworthy topics relevant to today's changing world. Upon completion of Biology 113 students should be able to demonstrate a basic knowledge of major biological theories that encompass the following topics:

(1) The process of science: seeking answers to questions on the basis of observation and experimentation
(2) Functional characteristics of living organisms
(3) Cell structure and cell interactions with one another and the environment
(4) Energy requirements and utilization of energy in living organisms
(5) Structure, function, and expression of DNA molecules
(6) Cell division processes and their role in growth, repair, development, and reproduction
(7) Gene inheritance and the role of genes in the structural and functional organization of life
(8) Genetic changes within populations, evolution, and the formation of new species.
(9) Anatomical, physiological, and ecological characteristics of biologically diverse organisms

COURSE MATERIALS:
3. Top Hat Subscription ($10.00) - optional - purchase at http://www.tophat.com; to be used in conjunction with a cell phone, smart phone, laptop computer, or iPod touch.

ATTENDANCE POLICY: Regular attendance is expected and strongly encouraged for success in the course. Attendance will be recorded using the Top Hat online system in conjunction with a cell phone, smart phone, laptop computer, or iPod touch. The Lower Division Instruction Program does not accept the TAMU Explanatory Statement of Absence Form as an adequate verification for an absence. Students who miss class and want to make up missed assignments must provide verification for the reason of absence (see Student Rules 7, http://student-rules.tamu.edu/). Prior notification of absence is expected whenever possible (Student Rule 7.3). For an absence due to illness or injury, each student must notify the instructor within two working days of the absence. Additionally, the student must provide, within one week, written and signed evidence of consultation with a medical professional confirming that the injury or illness was serious enough to justify the absence. Submitted evidence will be verified prior to approval of any makeup.

LECTURE EXAMS: Lecture grades will be determined from three 100-point lecture exams and one 150-point final exam. Each 100-pt lecture exam consists of ~45 multiple-choice. The final exam is cumulative and consists of ~65 multiple-choice questions. Exams cover both lecture information and textbook assignments. For each exam, students are required to bring a #2 pencil and your TAMU student ID card. Only these items along with small purses (closed and fastened on the floor) are allowed at a desk. Cell phones, pagers, calculators, notebooks, backpacks, etc. are not allowed in the seating area. Scantrons will be provided for each exam. Students will not be admitted late to an exam after the first person has finished and left the class.
EXAM SCHEDULE

<table>
<thead>
<tr>
<th>EXAM I (100 pts.)</th>
<th>Thursday, February 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAM II (100 pts.)</td>
<td>Thursday, March 12</td>
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<tr>
<td>EXAM III (100 pts.)</td>
<td>Thursday, April 16</td>
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<tr>
<td>FINAL EXAM (150 pts.)</td>
<td>Tuesday, May 12, 8:00-10:00 AM</td>
</tr>
</tbody>
</table>

**Bonus points:** BONUS point opportunities (short quizzes) administered to students during class using the Top Hat system in conjunction with a cell phone, smart phone, laptop computer, or ipod touch. Bonus points are added to each student's cumulative point total at the end of the semester (before averaging). These sessions are unannounced and can only be completed by students who are present in class. Total points given is based on the class performance and is at the discretion of the instructor. Questions or suggestions on total number of points or curve is strongly discouraged. There are NO makeup opportunities for these points.

**Exam Challenge:** After the exam, the key will be posted at [http://ecampus.tamu.edu](http://ecampus.tamu.edu). If students think there is an error on the key, they may state your objections through a challenge. Challenges are submitted at the website [http://www.bio.tamu.edu/lid/](http://www.bio.tamu.edu/lid/). Give referenced evidence to support your challenge. If a student’s written comments support the challenge, then the key will be revised. Note that this challenge period only lasts 24 hours from the time the exam key is posted. Final exams will not be returned or posted, and have no challenge period.

**Makeup Exams:** Will be given only in the event of an authorized university approved absence (see Attendance Policy). Upon approval of an excuse, a student must obtain a signed authorization form from the instructor and bring it to Heldenfels 315 to register for the makeup exam. **Makeup exams may consist of essay and short answer type questions along with or without multiple choice questions.**

MAKEUP EXAM SCHEDULE

<table>
<thead>
<tr>
<th>EXAM I</th>
<th>Thursday, Feb. 26, 5:30-6:30 PM, HELD 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAM II</td>
<td>Thursday, Mar. 26, 5:30-6:30 PM, HELD 200</td>
</tr>
<tr>
<td>EXAM III</td>
<td>Thursday, Apr. 23, 5:30-6:30 PM, HELD 200</td>
</tr>
</tbody>
</table>

**Course Websites:** Syllabi and course materials can be located at [http://ecampus.tamu.edu](http://ecampus.tamu.edu). The Introductory Biology Homepage at [http://www.bio.tamu.edu/lid/](http://www.bio.tamu.edu/lid/) contains general course and contact information. The textbook website is located at [http://www.whfreeman.com/sabiology](http://www.whfreeman.com/sabiology).
COURSE GRADE:

Lecture Percentage = Total lecture points / 450 × 100

Lab Percentage = Total lab points / 405 × 100

Course Percentage = (Lecture Percentage × 0.70) + (Laboratory Percentage × 0.30)

Designation of letter grades should be expected to be determined as follows:

A = 90-100%; B = 80-89%; C = 70-79%; D = 60-69%; F ≤ 60%

COURSE SCHEDULE (tentative)

TOPIC

UNIT 1: What is Life Made of?
   Chemistry, Cells, Energy
   Process of Science
   Chemistry and Molecules of Life
   Cell Function and Structure
   Nutrition, Metabolism, Enzymes
   Energy Flow and Photosynthesis
   Dietary Energy and Respiration
   Ch. 2; 20 - 43
   Ch. 3; 44 - 56
   Ch. 4; 74 - 93
   Ch. 5; 94 - 113
   Ch. 6; 114 - 135

UNIT 2: How Does Life Perpetuate?
   Cell Division and Inheritance
   DNA Structure and Replication
   Genes to Proteins
   Cell Division and Mitosis
   Genetic Mutations and Cancer
   Single-Gene Inheritance and Meiosis
   Complex Inheritance
   Stem Cells and Differentiation
   Ch. 7; 136 - 161
   Ch. 8; 162 - 191
   Ch. 9; 192 - 211
   Ch. 10; 212 - 227
   Ch. 11; 228 - 255
   Ch. 12; 256 - 281
   Ch. 13; 282 - 301

UNIT 3: How Does Life Change over Time?
   Evolution and Diversity
   Natural Selection and Adaptation
   Nonadaptive Evolution and Speciation
   Evidence for Evolution
   Life on Earth
   Prokaryote Diversity
   Eukaryote Diversity
   Human Evolution
   Ch. 14; 302 - 319
   Ch. 15; 330 - 351
   Ch. 16; 352 - 371
   Ch. 17; 372 - 389
   Ch. 20; 430 - 447

UNIT 5: How Do Organisms Work?
   Physiology
   Digestive system
   Cardiovascular system
   Nervous system
   Ch. 26; 568 - 595
   Ch. 27; 596 - 619
   Ch 29; 642 - 663
GENERAL INFORMATION:

Lower Division Biology Instruction Office: Information is available online at [http://www.bio.tamu.edu/ldi](http://www.bio.tamu.edu/ldi) or in Heldenfels 315 (Monday - Friday, 8 am - 5 pm, phone 845-4651, e-mail introbio@mail.bio.tamu.edu).

Grade Checks: Submit grade check requests at [http://www.bio.tamu.edu/ldi](http://www.bio.tamu.edu/ldi). Students will be notified by e-mail when the results are ready and must bring a student ID to Held 315 to pick up the grade check.

Grade Release: Family Educational Rights and Privacy Act of 1974 (FERPA) prohibits faculty or staff from posting grades by phone or e-mail. Grades will be online via Vista/Blackboard. To access this site: Logon to [http://ecampus.tamu.edu](http://ecampus.tamu.edu), select TAMU LOGON, logon with NetID and password, select Biology 113.

Q-Drop: Tuesday, April 21 (5:00 pm) is the deadline for dropping a course with no penalty (Q grade). If students have any question as to whether or not to Q-drop, they should talk to their instructor before this date. After this date, students will be assigned a letter grade or must negotiate a W (withdrawal) or NG (no grade) through your academic dean (see Student Rule 10.3).

Academic Integrity: "An Aggie does not lie, cheat, steal, or tolerate those that do."

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. Academic misconduct involves any of the following offenses: cheating, fabrication, falsification, multiple submissions, plagiarism, and complicity in any of these offenses. All incidents of academic dishonesty will be referred to the Biology Lower Division Program, are subject to academic penalties, and will be reported to the Texas A&M Honors System Office at [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor).

Disability Statement: 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 for their disabilities. Students who have a disability requiring an accommodation should contact the Disability Services in Cain Hall, Room B118, or call 845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu).

Copyright Statement: The handouts used in this course are copyrighted. "Handouts" are all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, power point slides, lab problems, in-class materials, review sheets, and additional problem sets. Students are also prohibited from posting notes on the internet without the express written permission of the professor teaching this course. Students are prohibited from selling (or being paid for taking) notes during this course to or by any person or commercial firm without the express written permission of the professor teaching this course.
Spring 2015 - BIOLOGY 113 LAB SYLLABUS

SECTION:  
DAY/TIME:  
LAB ROOM:  

LAB INSTRUCTOR:  
OFFICE/OFFICE HOURS:  
PHONE:  
E-MAIL:  

Course Objectives: Biology 113 lab serves to reinforce and supplement information presented during lecture. Upon completing this lab course, students should be able to discuss how the four basic theories of Biology--Cell Theory, Gene Theory, Theory of Heredity, and Theory of Evolution--form a unifying explanation of life on Earth. Students will be able to describe and discuss cell structure, cell function, and cell division. The successful student should be able to explain how genes and chromosomes provide the framework for genetic diversity as the basis for how organisms change over time. From the study of Biodiversity, students will be familiar with the major groups of organisms and should have a basic understanding of organ-system structure and function. Students will be able to use microscopes, data acquisition hardware and software, and metric measurement apparatus. After this class, students should be able to design and conduct experiments using the Scientific Method and be able to evaluate the scientific validity of reports in the popular media.

Texts/Materials:

Safety goggles

Attendance Policy: Students are expected to attend the weekly 170-minute lab sessions. Laboratory attendance is extremely important! For absences due to illness or injury, you must notify your instructor within two working days of the absence. Additionally, you must provide within one week written and signed evidence of consultation with a medical professional confirming that the injury or illness was serious enough to justify the absence. Submitted evidence will be verified prior to approval of any make up. Zeroes will be recorded for any missed material without such an excuse.

Absence Policy: The Biology Lower Division Program does not accept the Texas A&M University Explanatory Statement of Absence Form as an adequate verification for an absence. Students who miss class and want to make up one or more missed assignments must provide verification for the reason of the absence (see section 7, Attendance http://student-rules.tamu.edu/rule07). Prior notification of absence is expected whenever possible.

Lab Rescheduling: A verifiable university approved excuse is required before a student may be rescheduled into another lab section during the same week, if space permits. To reschedule a missed lab during the same week lab is missed, bring written verifiable evidence of a university excused absence to 315 HELD as early as possible. There will be NO make up labs. If you miss a lab for a university approved reason and cannot be rescheduled, then you must contact your lab instructor within two working days after the lab to make arrangements for a make up quiz or assignment. Failing to contact your instructor in a timely manner will result in a zero for the missed assignment.

Course Grade:

Some downward adjustment of letter grade cutoffs (i.e. curve) may be applied dependent on the class numerical grade distribution and the instructor’s judgment. Final lab totals may be subject to statistical normalization. Grades are awarded only on the basis of your performance in the class.

Quizzes: The twelve 25-point quizzes will be a combination of written and practical questions. Quizzes will have a minimum of 30% practical questions.
Assignments: There will be 11 homework and in-class assignments worth a total of 105 points. Two points are automatically deducted for late assignments, and an additional point is deducted for each additional day overdue. Late homework may be logged in at HELD 317E or HELD 315.

Regrading Assignments: Is at the discretion of the instructor. Requests for re-grading must be initiated within two weeks of the assignment being returned to the student and must be completed before the last official day of classes.

Extra Credit: A total of 10 extra credit points may be earned by bringing live pill bugs to lab during the week of March 3-5. Five points are awarded for 10 pill bugs and ten points for 20 pill bugs. No points for late pill bugs.

Participation Points: Each TA will award a maximum of 25 points based upon cooperation, class participation, attendance, and cleanup.

Record your lab grades:

<table>
<thead>
<tr>
<th>Homework and In-Class Assignments (105 pt)</th>
<th>Quiz Grades (300 pt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1 (5 pt)</td>
<td>1. (25 pt)</td>
</tr>
<tr>
<td>Assignment 2 (10 pt)</td>
<td>2. (25 pt)</td>
</tr>
<tr>
<td>Assignment 3 (10 pt)</td>
<td>3. (25 pt)</td>
</tr>
<tr>
<td>Assignment 4 (10 pt)</td>
<td>4. (25 pt)</td>
</tr>
<tr>
<td>Assignment 5 (5 pt)</td>
<td>5. (25 pt)</td>
</tr>
<tr>
<td>Assignment 6 (10 pt)</td>
<td>6. (25 pt)</td>
</tr>
<tr>
<td>Assignment 7 (5 pt)</td>
<td>7. (25 pt)</td>
</tr>
<tr>
<td>Assignment 8 (10 pt)</td>
<td>8. (25 pt)</td>
</tr>
<tr>
<td>Assignment 9 (15 pt)</td>
<td>9. (25 pt)</td>
</tr>
<tr>
<td>Assignment 10 (5 pt)</td>
<td>10. (25 pt)</td>
</tr>
<tr>
<td>Assignment 11 (20 pt)</td>
<td>11. (25 pt)</td>
</tr>
<tr>
<td></td>
<td>12. (25 pt)</td>
</tr>
</tbody>
</table>

Extra credit (10 pt maximum)
5 points for 10 live pillbugs, 10 points for 20.

Participation pt (25 pt).

Total Points (405 possible = 430 minus the lowest earned quiz score*)
* Low quiz score must be an earned score. A quiz grade of zero will not be dropped.

\[
\text{Lab Grade} = \frac{\text{total points} \times 100}{405} = \text{______}\%
\]

Lab Grade comprises 30% of total course grade.

Lab Information:

Lab Safety:
You will be required to sign a Safety Agreement indicating that you have read, understood, and agree to follow the safety regulations required for this course. (You will sign one when you register and will sign a paper copy in lab.)

Eating, drinking, and use of tobacco products are prohibited in the laboratory.
University safety regulations require closed shoes in the laboratory. You will be refused admittance to the lab if you wear sandals or open shoes.

Safety goggles are required. Bring safety goggles to all labs.

Laboratory Assignments:

Work individually. All laboratory assignments are individual projects. Do not work together on written assignments without the permission of your lab instructor. Please carefully check due dates for each assignment.

Plagiarism and Proper Citation: Copying from texts, lab manuals, internet sources, other students, or your own previously-submitted work is plagiarism and will be considered cheating. If you quote from another source, you must credit that source in your text and properly cite the reference in the literature cited section. The following is an example of a proper citation:


Assignment 1 - The Guiding Principles of Biology (5 pts.). Give a short, in-class presentation of the termite behavior experiment, with special reference to how the experiment followed the scientific method.

Assignment 2 - The Cell Theory (10 pts.). Prepare a one- or two-page report detailing which antibiotics worked in the case study the lab manual. Answer the questions on page 22. Do not plagiarize your sources, but present the report in your own words. Properly cite any sources used, submit the text to turnitin.com, print the receipt, and attach it to the copy of the report you give to your instructor.

Assignment 3 - Cell Function - The Energy Cycle (10 pts.). Work individually! Prepare a one- or two-page write-up of your team’s respiration experiment from pages 38-40. Include your hypothesis, null hypothesis, materials, methods, results, and the table and graph recording the experimental data (height of CO₂ column). Properly cite any sources used, submit the text to turnitin.com, print the receipt, and attach it to the copy of the report you give to your instructor.

Assignment 4 - Forensic Biology (10 pts.). Work independently to write a summary of the investigation, including items 1-3 on p. 91 of the lab manual. Use complete sentences and/or show your work when answering questions. Cite any sources used, submit your report to turnitin.com, print the receipt, and attach it to the copy of the report you give to your instructor.

Assignment 5 - Gene Expression/Protein Synthesis (5 pts.). Draw a flowchart outlining the steps in protein transcription and translation, including where in the cell each takes place. Submit it to your instructor before you leave lab.

Assignment 6 - Theory of Heredity (10 pts.). Work independently to complete and turn in the worksheet on pages 125-126. Use complete sentences and/or show your work when answering questions. Properly cite any sources used, submit the text to turnitin.com, print the receipt, and attach it to the copy of the work you give to your instructor.

Assignment 7 - Behavioral Ecology (5 pts.). Work independently to write an abstract of your pillbug choice chamber experiment. Include your data table (9-2). Cite any sources, submit your abstract to turnitin.com, print the receipt, and attach it to the work you give to your instructor.

Assignment 8 - Plant Communities (10 pts.). Using your lab manual and textbook, complete Table 10-1 on page 163 and Figure 10-4 on page 164. Write a brief summary of the adaptations plants have evolved for life on land. Cite any sources, submit the text to turnitin.com, print the receipt, and attach it to the report when you submit it to your instructor.
**Assignment 9 - Animal Diversity (15 pts.)** Write a short paper describing the distinguishing characteristics of the major invertebrate phyla—molluscs, arthropods, echinoderms, and chordates— as described in chapters 11 and 12. Also draw a phylogeny showing the evolutionary relationships of the coelomate animals. Note a key character state for each branch point on your phylogeny. Your TA will provide a list of which groups to include. Submit the text to turnitin.com, print the receipt, and attach it to your assignment when you submit to your instructor.

**Assignment 10 - Digestive and Excretory System (5 pts.)** Your TA will assign 1 of the 3 digestive enzyme experiments. Write a brief summary of your hypothesis, method, and results for the assigned experiment. Include the completed data table from the lab manual. Work individually. Submit the assignment to your instructor before you leave class.

**Assignment 11 - Cardiopulmonary Function (20 pts.)** Write a lab report. Follow the guidelines in Appendix A and be sure to include all the elements on page 329. **DO NOT COPY APPENDIX A.** Include graphs of the class data for the effect of exercise on respiratory rate, pulse rate, and blood pressure. Compare the class data to the data set taken by your group. Submit your text to turnitin.com. Print the receipt and attach it to your graphs and paper when you submit them to your instructor.

**Student Support:**

*Help desk:* Students needing individual assistance will find a Teaching Assistant in Heldenfels Room 317E, phone 845-4653. Check the schedule posted outside of Heldenfels 315.

*Biology Image Library:* Study and review images of lab slides, specimens, etc. may be available online via the TAMU Biology Images Library at http://biologyimages.tamu.edu. Refer to your instructor for username and password information.

*Problems:* Courtesy dictates that you first discuss any problem with your laboratory instructor. If the problem has not been resolved, please contact Dr. Christopher Lee (Teaching Coordinator) at 458-3399 (or by email clee@bio.tamu.edu) to make an appointment to discuss the situation.
<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
<th>CHAPTER</th>
<th>HOMEWORK DUE/IN-CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 20-22</td>
<td>Guiding Principles of Biology</td>
<td>Chapter 1</td>
<td>Assignment 1 (in-class)</td>
</tr>
<tr>
<td>Jan. 27-29</td>
<td>The Cell Theory</td>
<td>Chapter 2</td>
<td></td>
</tr>
<tr>
<td>Feb. 3-5</td>
<td>Cell Function/Energy Cycle Quiz 2</td>
<td>Chapter 3</td>
<td>Assignment 2 (turnitin.com)</td>
</tr>
<tr>
<td>Feb. 10-12</td>
<td>Cell Division Quiz 3</td>
<td>Chapter 4</td>
<td>Assignment 3 (turnitin.com)</td>
</tr>
<tr>
<td>Feb. 17-19</td>
<td>Forensic Biology Quiz 4</td>
<td>Chapter 5</td>
<td></td>
</tr>
<tr>
<td>Feb. 24-26</td>
<td>Gene Expression &amp; Protein Synthesis/ Theory of Heredity</td>
<td>Chapter 6</td>
<td>Assignment 4 (turnitin.com)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chapter 7</td>
<td>Assignment 5 (in-class)</td>
</tr>
<tr>
<td>March 3-5</td>
<td>Evidence for Evolution Quiz 5</td>
<td>Chapter 8</td>
<td>Assignment 6 (turnitin.com)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Optional extra credit pillbugs due</td>
</tr>
<tr>
<td>March 10-12</td>
<td>Behavioral Ecology Quiz 6</td>
<td>Chapter 9</td>
<td></td>
</tr>
<tr>
<td>March 17-19</td>
<td>Spring Break</td>
<td></td>
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</tr>
<tr>
<td>March 24-26</td>
<td>Plant Communities Quiz 7</td>
<td>Chapter 10</td>
<td>Assignment 7 (turnitin.com)</td>
</tr>
<tr>
<td>March 31- Apr. 2</td>
<td>Invertebrate Diversity Quiz 8</td>
<td>Chapter 11</td>
<td>Assignment 8 (turnitin.com)</td>
</tr>
<tr>
<td>April 7-9</td>
<td>Deuterostomes Quiz 9</td>
<td>Chapter 12</td>
<td></td>
</tr>
<tr>
<td>April 14-16</td>
<td>Digestive &amp; Excretory Systems Quiz 10</td>
<td>Chapter 13</td>
<td>Assignment 9 (turnitin.com)</td>
</tr>
<tr>
<td>April 21-23</td>
<td>Cardiopulmonary Function Quiz 11</td>
<td>Chapter 14</td>
<td>Assignment 10 (turnitin.com)</td>
</tr>
<tr>
<td>April 28-30</td>
<td>Nervous System Quiz 12</td>
<td>Chapter 15</td>
<td>Assignment 11 (turnitin.com)</td>
</tr>
</tbody>
</table>

GOGGLES REQUIRED EVERY WEEK. DO NOT WEAR OPEN SHOES TO LAB.
Texas A&M University

Core Curriculum Course Recertification - PILOT

Cover Sheet

1. Course prefix and number: COMM 205
2. Complete course title: Communication for Technical Professionals
3. This request is submitted by (department name): Department of Communication
4. Contact Information for department representative coordinating Recertification (name): Stacy Aschenbeck
5. E-mail: stacy-h-aschenbeck@tamu.edu
6. Faculty member from whom class sets were collected (name): Stacy Aschenbeck
7. E-mail: stacy-h-aschenbeck@tamu.edu

8. Indicate the Foundational Component Area this course is in:
   □ Communication
   □ Mathematics
   □ Life and Physical Sciences
   □ Language, Philosophy and Culture
   □ Creative Arts
   □ American History
   □ Government/Political Science
   □ Social and Behavioral Science

9. Indicate the semesters this course has been taught and the enrollment each semester taught:
   □ Fall 2014  249
   □ Spring 2015  149
   □ Summer 2015  0
   □ Fall 2015  146
   □ Spring 2016  @150
   □ Summer 2016  anticipated 0

10. Attach the course syllabus

11. Submitted by:
    Stacy Aschenbeck
    September 29, 2015
    Date

12. Department Head
    10/1/15
    Date

13. To submit recertification materials, follow directions on Instructions for the Core Curriculum Recertification Cover Sheet.
Texas A&M University
Core Curriculum Recertification and Assessment - PILOT

Foundational Component Area: Communication

In the box below, describe how this course met the Foundational Component Area description for 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.

Communication for the Technical Professional is a course designed to teach better communication skills. We spend the entire semester teaching students how to communicate effectively orally as well as in writing. Some of the areas discussed in this course include: how to pick appropriate and challenging topics that meet the needs of the audience, how best to organize information in both oral and written formats, how to do high quality research, how to design visual aids that are most effective in helping audiences process information, ethical responsibilities of speaking and writing, how to use language to communicate effectively, how to best deliver a speech, how to outline a speech or paper, how to use supporting information to develop points, methods of persuasion, and how to work in groups effectively. Students give four oral presentations, two individually and two in groups. They also write a full sentence outline and design a visual presentation for each of these speeches. In addition students write one individual paper that is informative, and design one web-based writing assignment that is persuasive as a group. Students also evaluate not only their own work, but evaluate the work of other students. This allows students to receive a wide-variety of feedback on each and every project they complete.

Core Objectives for the Communication Foundational Component Area:

1. **Critical Thinking:** to include creative thinking; innovation; inquiry; and analysis, evaluation and synthesis of information
2. **Communication:** to include effective development and interpretation and expression of ideas through written, oral and visual communication
3. **Teamwork:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
4. **Personal Responsibility:** to include the ability to connect choices, actions, and consequences to ethical decision-making

For one representative course section (open to all majors, including a general population of students, not an Honors Section) taught in the year prior to this recertification request:

1. Describe how students are informed of the core objectives being addressed in this core curriculum course. Students in COMM 205 are informed of the objective of critical thinking when we discuss how to analyze speeches and when we discuss the rubric used to grade speeches which shows that in order to do your best in the class you must critically analyze your topic. They learn about oral and written communication skill almost every lecture of the semester. We spend huge amounts of time teaching how best to orally communicate as well as communicate in writing. Students are informed of teamwork objectives when groups are formed for symposiums and expectations for group behavior is explained. Personal Responsibility is stressed in an entire chapter on ethics which explains the importance of ethics in communication as well as in the real world technical situations.

2. Describe how the course fostered student development related to each of the four core objectives. Students in 205 use critical thinking to analyze topics and develop those topics in order to present valid persuasive arguments. They also use critical thinking to analyze the speeches of other students and example speeches. Students use communication skills to present two informative speeches, two persuasive speeches, four full-
sentence outlines, and two additional writing assignments at least one of which is in an online format. Students use teamwork in order to present an informative symposium as well as a persuasive symposium with groups of around five. The groups research and develop topics together in order to inform the class of a technical topic or persuade them on a technical topic. The students are expected to demonstrate personal responsibility by making good ethical choices when citing sources, and by being knowledgeable about topics they are assigned for oral presentations.

3. Describe how student learning of each objective was evaluated. Include explanation of materials used in lecture or assigned as required reading along with an evaluative summary of student learning related to the core objective.

Students are evaluated on their ability to think critically for each speech as well as each writing assignment. Topics must be unique and college educated as well as related to the entire audience. Students must also decide which information is the most important in achieving his or her goal within the confinement of a time limit. Communication skills are evaluated using a rubric for oral presentations as well as for written presentations. There is one rubric that is used to evaluate oral presentations, another used to evaluate full-sentence outlines, and others that are used to evaluate written projects. Teamwork is assessed multiple ways throughout the semester. Students participate in two group symposiums and work to put together one web-based writing project. During this time the instructor assesses the teamwork within the group by the seamlessness of the oral presentation as well as the total group participation in the web-based project. In addition, students fill out a self-assessment as well as a peer evaluation for their team members after each project. Personal Responsibility is evaluated by the student's ability to make good ethical choices in their oral presentations (choosing topics that are not offensive to the audience as not to lose ethos), their ability to cite sources correctly both in writing and orally.
COMM 205: Communication for the Technical Professions
Syllabus: Fall 2014
COMM 205-503 TR 8:00-9:15 BLTN 006

Instructor: Stacy H. Aschenbeck Email: stacy-h-aschenbeck@tamu.edu
Office: Bolton 202A Office hrs: TR 2:00-5:00, and by appointment

Course Director: Prof. Stacy Aschenbeck Email: stacy-h-aschenbeck@tamu.edu

Course Description:
Design and presentation of oral reports for technical professions; incorporation of visual and graphic materials into presentation required; written reports required.

Learning Outcomes:
The successful student will:
1. Deliver technical speeches for specified audiences.
2. Write technical information for specified audiences.
3. Work with a team to develop and deliver technical presentations.
4. Select appropriate topic and organizational pattern to meet given assignment.
5. Research the topic and select information that best supports the purpose of the speech.
6. Cite scholarly sources in oral and written communication.
7. Deliver extemporaneous speeches within time constraints.
8. Respond to questions from the audience.
9. Produce and integrate visual and graphic materials sensory aids to support the message and with respect and sensitivity for the audience.
10. Critique his/her speeches and those speeches of others with respect to invention, arrangement, language, style, critical thinking and delivery.

Required Texts and Materials:

Lucas, Stephen E. The Art of Public Speaking 11th ed. McGraw-Hill, 2012 NOTE: A hard copy or CourseSmart version is acceptable. Used books are fine. You will not need the CD-ROM or extra access codes the publisher may offer. The book from the TAMU bookstore is a custom TAMU edition in black and white ordered to save you money.

Aschenbeck, Stacy H. Course Packet for Communication for Technical Professionals: Comm 205, Fall 2014. The course manual is posted on ecampus.tamu.edu NOTE: Please print out single sided and bring this manual to class every day.

Two pocket folder, eCampus for COMM 205, and USB flash drive to receive video recordings of your speeches.
Grading
The course grade will be calculated from these assignments with these weights.

Project One 10%: Speech One/Outline & Bibliography
Project Two 25%: Speech Two/Outline & Bibliography 15% and FAQ 10%
Project Three 20%: Speech Three/Outline & Bibliography
Project Four 25%: Speech Four/Outline & Bibliography 15% and Group Wiki 10%
Exam 10%
Homework, in-class assignments: 10%
  Library Research Homework: 4 @ 10%
  Self Evaluations: 3 @ 10%
  Homework Assignments: 2 @ 15%

The final course grade will be assigned like this:
A= 89.5-100+  B= 79.5-89.4  C=69.5-79.4
D=59.5-69.4  F=0-59.4

Students may rest assured that this scale will be applied uniformly. Please do not request that the scale be applied to your grade in a different manner.

Extra credit is never offered on an individual basis. If extra credit is offered, it will be offered to the entire course and only by the Course Director.

Attendance
Class is going to be so great that I think that you'll want to attend each and every session; however, Attendance is Required at each meeting of COMM 205

Students shall arrive on time and stay for the entire class period. Attendance is documented by the student's full signature on the daily sign-in sheet. Students may have three (3) unexcused absences however no make-up work is available for unexcused absences. Therefore, the student shall not have an unexcused absence on days the student is to deliver a speech, turn in homework or take an exam or quiz.

The course grade will be reduced by one letter grade for each unexcused absence in excess of three. Three tardies equal one unexcused absence.

Make-up work is available for students with excused absences in accordance with Student Rules. Please see Student Rule http://student-rules.tamu.edu/rule07 To document an excused absence: We do NOT accept the Texas A&M University Explanatory Statement for Absence from Class. With the exception of religious observances, students must provide written documentation of an excused absence, from a healthcare provider for illnesses or injuries too severe or contagious for a student to attend class, or from the appropriate official able to document other University excused absences http://student-rules.tamu.edu/rule07.

Excused absence documentation must be received by the instructor no later than one week after the date in question.

Please note that job interviews are NOT excused absences. Student shall use the three unexcused absences for job interviews and schedule such interviews at times that do not conflict with class.
Assignments

Final Writing Assignment: Group Wiki Project (10% of course grade)

Collaborative social media tools are especially common to the technical professions, which is why we are creating wiki pages in this class. Our wiki project is in alignment with Speech #4. For this project, each student will work with the group and be responsible for completing part of the project. The group will select a controversial issue representing the world today. They will then spend the semester adding assigned parts to the wiki in order to compile an effective wiki by the end of the semester.

For the wiki, the partners are to create a wiki page to illustrate their research of the problem that our world is facing today. The topic should be timely and have technical aspects to be discussed. Each group’s wiki, when completed, will be between 2000-2500 words (the equivalent 8-10 double-spaced, printed pages, 12 pt font, Times New Roman or Arial.) While there are specific academic guidelines to this project, you are encouraged to utilize the interactive features of the wiki. Feel free to post videos from YouTube or elsewhere, create a hyperlinked section for further reading, post pictures, graphs, FAQs, etc. Have fun. This assignment is a challenge but isn’t nearly as complex or time-consuming as it may seem at first. The Wiki site I’ve chosen is simple to use (it’s designed for K-12...that’s right...K) and I’ll be prompt in answering questions.

PROJECT ONE: Influential Person from your field of study (10% of course grade)

Deliver an informative presentation about a person who influenced your field of study. The person you choose to speak about can be someone who is a recent scholar or more of a founding father, but they should be someone who the class would find interesting. In this speech you should:

Main Point I: Discuss the individual’s life
Main Point II: Describe the individual’s career
Main Point III: Describe what influence this person had on your field of study

Speaker: Individual
Audience: Public/society
Purpose: Informative

Students will submit a Library Research/Topic Commitment form as indicated in the calendar

Presentation minimum requirements:
- Extemporaneous presentation
- Full sentence outline & key word (speaking) outline
- 3 sources required (oral citations, written outline citations, bibliography)
- 4 minutes long (3-5 minutes allowed)
- Visual aids are optional.

Students will submit a self-evaluation of their performances based on viewing of video recording of their speeches the class after their presentation.
PROJECT TWO: Speech Two—What's it all About Symposium (15% of course grade)
FAQ Paper (10% of course grade)

Together with your group, deliver an informative symposium about a recent technical developments related to your field of study. This is a group presentation in symposium format.

Each group will complete a Group Presentation planning sheet prior to the presentation. Each student will complete a Library Research/Topic Commitment form prior to the presentation. See syllabus for due date.

The group will determine the appropriate number of main points and equal division of presentation. If people in the team are in diverse majors, part of the challenge will be to relate the developments so that the presentation flows smoothly.

Speaker: Individual speaker and as part of a team
Audience: Public/society (college educated and not)
Purpose: Informative

Presentation minimum requirements:
- Extemporaneous speaking
- 5 minutes per speaker (4-6 minutes allowed)
- 4 sources per speaker (oral citations, written outline citations, bibliography)
- Full sentence outline & key word (speaking) outline per speaker
- Google.doc presentation by the group where each individual speaker contributes at least two slides. Each speaker should incorporate visual and graphic material

15% of course grade (90% of the grade is derived from individual performance. 10% based on group coordination.)

*Students will submit a self evaluation of their speech based on viewing of video recording of their speeches the class after they speak.

As an individual, write: an FAQ document about recent technical developments related to your field of study as related to Speech Two.

Individual paper—do NOT collaborate in any way

5 substantive and distinct questions related to the technical development featured in Speech Two. Each answer shall be supported by at least one source of information (scholarly paper, technical documentation, interview with expert). Answers to questions should be in depth enough to answer questions fully (a minimum of ten sentences each). Sources may or may not be duplicative of sources for speech two.

Typed, double spaced

Bibliography formatted to MLA included at end of questions.

Submitted at beginning of class as a hard copy on assigned due date.
PROJECT THREE (Individual): There Should Be a Law! (20% of course grade)

With recent and emerging technical developments, there are always grey areas as to what ethically correct and responsible behaviors are and what are not. For speech three pick a technical topic related to business, science, computers, or any other type of technology and propose a law that would make improve that particular area of industry. For this assignment, you will work as an individual to propose a change in a technological field of study. Details of the assignment will be posted on eCampus.

Speaker: Individual
Audience: the voting public
Purpose: Persuasive

Students will submit a Library Research/Topic Commitment form as indicated in the calendar

Presentation minimum requirements:
  Extemporaneous presentation
  Individual speech 7 minutes (6-8 minutes allowed) plus 2 minute Q&A session
  Full sentence outline & key word (speaking) outline
  5 sources required (oral citations, written outline citations, bibliography)
  PowerPoint slides as visual support incorporating visual and graphic material

Students will submit a self evaluation of their performance based on viewing of video recording of their speeches

PROJECT FOUR- The Problem Facing Us Today (15% of course grade)

Students will complete Group Presentation planning sheet and library research homework prior to the presentation.

Deliver: Speech Four: “A Crisis Facing Our Country” (worth 15% of course grade) In groups (up to 5 members) you will research a problem our country is currently facing. This problem may represent a risk or it may represent a crisis. The topic should be timely, or, should address a current problem. Students will work in teams assigned by the instructor.

The organizational structure of the speech will be specified in documents posted on eCampus. The assignment will be supported by the team’s wiki.

You will be trying to persuade a well educated but general audience of policy makers to adopt your policy/plan that will fix the problem identified.

You will conduct library to gain a better understanding of this problem and feasible solution.

Group members will be evaluated individually on their presentation of their aspect of the problems and/or solution.

Speaker: Individual as part of a group
Audience: The voting public
Purpose: Persuasive

Students will submit a Library Research/Topic Commitment form as indicated in the calendar

Presentation minimum requirements:
  Extemporaneous presentation
  Each member shall speak for 5 minutes (4-6 minutes).
  Full sentence outline & key word (speaking) outline
  4 sources required/per speaker (oral citations, written outline citations, bibliography)
Google.doc as visual support by each group where each speaker incorporates a minimum of two slides of visual and graphic material

15% of course grade (90% of the grade is derived from individual performance. 10% based on meeting group coordination. See eLearning for rubric.)

Students will submit a self evaluation of their performances based on viewing of video recording of their speeches the course after they speak.

### CALENDAR

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-2</td>
<td>Discuss Syllabus, Student Introduction Poems, Would You Rather, Note card assignment</td>
<td>Syllabus, intro to course packet</td>
<td>Print Packet single sided</td>
</tr>
<tr>
<td>9-4</td>
<td>Discuss speech one, topic selection, and analyzing an audience, notecards</td>
<td>Chapters 5 and 6</td>
<td>Notecards due</td>
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<tr>
<td>9-9</td>
<td>Organizing the body of the speech, introductions, conclusions</td>
<td>Chapters 9 and 10</td>
<td>Speaking date and Groups Assigned</td>
</tr>
<tr>
<td>9-11</td>
<td>Outlining, supporting ideas</td>
<td>Chapters 8 and 11</td>
<td>Library Research Due</td>
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<tr>
<td>9-16</td>
<td>Lab Day- Research, ethics</td>
<td>Chapters 7 and 2</td>
<td>Meet in BLTN 111</td>
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<tr>
<td>9-18</td>
<td>Speech One</td>
<td></td>
<td>Speakers 1-6</td>
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<tr>
<td>9-23</td>
<td>Speech One</td>
<td></td>
<td>Speakers 9-17</td>
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<tr>
<td>9-25</td>
<td>Speech One</td>
<td></td>
<td>Speakers 18-25</td>
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<tr>
<td>9-30</td>
<td>Speech 2 Assignment, Groups Assigned, Working in Groups, Group Day</td>
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<tr>
<td>10-2</td>
<td>Using Visual Aids, Language, Language Assignment</td>
<td>Chapters 14 and 12</td>
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<tr>
<td>10-7</td>
<td>Speaking to inform, Writing FAQs for a lay audience</td>
<td>Chapter 15</td>
<td>Lib Research and Group Planning sheet Due, Language asmt due</td>
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<td>10-9</td>
<td>Listening and delivery</td>
<td>Chapters 13 and 3</td>
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<td>10-14</td>
<td>Speech II</td>
<td></td>
<td>Groups 1 and 2</td>
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<tr>
<td>10-16</td>
<td>Speech II</td>
<td></td>
<td>Groups 3 and 4</td>
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<td>10-21</td>
<td>Speech II, Go over speech 3</td>
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<td>Group 5</td>
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<tr>
<td>10-23</td>
<td>Speaking to persuade, Methods of Persuasion, assign persuasion hwk</td>
<td>Chapters 16 and 17</td>
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<td>10-28</td>
<td>Practice using Monroe, discuss group assignment 4</td>
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<td>Library Homework due in class, persuasion homework due</td>
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<tr>
<td>10-30</td>
<td>Speech III</td>
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<td>Speakers 9-15</td>
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<td>11-4</td>
<td>Speech III</td>
<td></td>
<td>Speakers 16-21</td>
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<tr>
<td>11-6</td>
<td>Speech III</td>
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<td>Speakers 22-25, 1-2</td>
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<tr>
<td>Date</td>
<td>Activity</td>
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<td>11-11</td>
<td>Speech III</td>
<td>Speakers 3-8</td>
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<td>Speech III</td>
<td>Speakers 3-8</td>
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<td>11-18</td>
<td>Review for Exam, Wiki Assignment</td>
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<td>11-20</td>
<td>Exam</td>
<td>Study for exam</td>
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<td>11-25</td>
<td>Group work day- Must be in class</td>
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<td>12-2</td>
<td>Speech IV</td>
<td>Group 3 and 4</td>
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<tr>
<td>12-4</td>
<td>Speech IV</td>
<td>Groups 5 and 1</td>
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<tr>
<td>12-9</td>
<td>Speech IV</td>
<td>Group 2</td>
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<tr>
<td>12-12</td>
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<td>Wiki Due</td>
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**Americans with Disabilities Act (ADA) Policy Statement**

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 Statement and Policy**

Do not cheat in this course. Do not commit scholastic dishonesty of any kind. Students who commit scholastic dishonesty will earn an F* on the transcript for this course. See the Aggie Honor System website for additional information on Scholastic Dishonesty and the Honor Council Rules and Procedures, http://aggiehonor.tamu.edu/

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