Resubmissions
Texas A&M University
Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum
to be considered for the Fall 2014 Core Curriculum

This request is submitted by (department name): Physics & Astronomy
1. Course prefix and number: ASTR 101 Texas Common Course ASTR 1304
2. Number: 3. Number: PHYS 1311
4. Complete course title: Basic Astronomy 5. Semester credit hours: 3
6. This request is for consideration in the following Foundational Component Area:
   ___ Communication ___ Creative Arts
   ___ Mathematics ___ American History
   X ___ Life and Physical Sciences ___ Government/Political Science
   ___ Language, Philosophy and Culture ___ 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 Summer semester
9. Number of class sections per semester: 2-4 classes (1 class in first Summer semester)
10. Number of students per semester: 360 to 530

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.

13. Submitted by: [Signature] 01 March 2013
    Course Instructor

    Approvals: [Signature] 3/4/2013

14. Department Head
    [Signature] 3/5/13
15. College Dean/Designee

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 2014 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?

ASTRONOMY 101 (3 credits): BASIC ASTRONOMY
A qualitative approach to basic stellar astronomy; earth–moon–sun relationships, then studies of distances to stars, stellar temperatures, and other physical properties; birth, life on the main sequence of the Hertzprung–Russell diagram, and ultimate fates of stars.

ASTR 101 enables students to understand, construct, and evaluate relationships in the natural world by understanding the basis for building and testing scientific theory. The course goal is to inculcate the students with an understanding and appreciation of the basic scientific method and principles, thus allowing students an opportunity for a better understanding and appreciation of our physical place in the Universe. The lectures cover a wide range of material including history of science and the development of the scientific method through explanation of the movement in the sky of the planets, Sun, and Moon; comparative description of the major planets and other minor Solar System bodies with their connection to formation models of the Sun and early solar nebula; the discovery of planets orbiting other stars; description of the properties of stars including the use of thermodynamic and energy balance arguments that explain the interior physics of stars and subsequent evolution over time; identification of the various components of galaxies including our Milky Way and the relationship of galaxy evolution to the dynamics, kinematics, formation, and development of large structures; and the observational evidence for Big Bang cosmology with our modern understanding of the state and evolution of the Universe over cosmic time. Through the material covered in ASTR 101, the students are introduced to nearly all fundamental topics of modern science.

For more information, please contact the Undergraduate Astronomy Coordinator Dr. Kim-Vy Tran (vy@physics.tamu.edu) and visit the website astronomy.tamu.edu

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):

Astronomy 101 is structured around general questions about science and its place in our world. We stress the use of the scientific method in answering questions. We give instruction in astronomy specifically, but give an appreciation of the broader context of that knowledge. In particular, we will show that gaining a scientific body of knowledge involves mastery of concepts and specific viewpoints, much more than simply learning a set of facts. We show what types of questions can be posed and how they are answered in a scientific context; this necessarily involves explanation of how scientific theories are developed and tested and the nature of science and limits of empirical knowledge. Astronomy is well tuned to this sort of instruction; both due to its intrinsic interest, but also because the span of time and spatial scales involved are so much greater than human experience.

Astronomy 101 includes instruction in issues that connect astronomical knowledge and associated scientific methodology more generally to concepts that unify the natural sciences and that are related to a broader cultural context. We show the importance of cause and effect reasoning in the scientific world view, demonstrate the characteristic scales and proportions of natural phenomena, explain the ways in which the Universe and local environment change and evolve, reveal the general applicability of natural laws, illustrate the role of mathematics in science, and discuss the historical development of science and impact on culture and general intellectual progress. Individual student progress is assessed regularly throughout the semester using metrics that include homework, in-class participation via polling, and exams.

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

Communication is key to science and the students develop communication skills on multiple levels including analytic and written skills as part of the assignments as well as verbal skills during lectures, specifically with the lecture tutorials and in-class polling (see the following sections). Astronomy also is particularly attuned to teaching students visual interpretation and understanding, specifically by using figures and images of astronomical objects to infer empirical relations and thus learn universal physical concepts. The course components are designed to teach students how to explain the scientific process, describe basic physical concepts and general characteristics of astronomical objects, apply scientific thinking to the natural world, and formulate a scientific hypothesis. Individual student progress is assessed regularly throughout the semester using metrics that include homework, and exams.
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Empirical and Quantitative Skills (to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions):

ASTR 101 teaches students how to identify the differences among competing scientific theories, recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry, apply their analytical skills to understand the physical nature of the universe, and communicate their findings, analyses, and interpretation both orally and in writing. Specifically there are regular homework sets (12 in total) and exams that are coordinated with the lecture material. The assigned questions include mathematical problems that develop familiarity with data analysis and numerical manipulation as well as short answer, discussion-style problems that utilize higher level cognitive skills.

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 ASTR 101 lectures incorporate two strategies to promote active learning through teamwork: (1) in-class polling with iClickers (during each lecture) and (2) lecture tutorials for group work (6-8 tutorials per course). With in-class polling, the lecturers are able to determine if students are understanding the new material. If a majority of the class answers a poll question incorrectly, the students are encouraged to discuss with each other using scientific arguments about which answer is most likely to be correct. Once discussion has ended, the poll is taken again. The process is repeated until through evaluation of the different points of view, the majority of the class has selected the correct answer.

Lecture-tutorials are an effective tool for promoting active learning through discussion and collaborative teamwork. During a lecture, the students work in small groups (2-3) on an astronomy tutorial that reinforces the introduction of new concepts by applying these concepts in a series of questions; students typically require 15-20 minutes to complete a tutorial. The tutorials have multiple discussion-style questions that the students evaluate using the scientific method and answer as a team. The class then reviews the tutorial which often promotes further discussion of the material.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
Howdy! Welcome to Astronomy 101! This course covers a wide range of topics in modern astronomy and the laws of physics that govern the Universe. This course is intended for students who are not majoring in engineering or a physical science. Some basic knowledge of high-school physics would be helpful, but don’t worry if you never took it or if you’ve forgotten most of it – we will cover these topics in the first few weeks of class. I hope that by the end of the term you will have a firm understanding of the main areas of modern Astronomy and you will be able to explain to your friends and family how planets form, why stars shine, and what might be the ultimate fate of the Universe.

Important information

• Instructor: Prof. Lucas Macri
  o lmacri@tamu.edu, Mitchell Institute #423, (979) 314-1592

• Teaching Assistants: Steven Boada & Yi Yang
  o sboada@physics.tamu.edu; nge4594@physics.tamu.edu
  o Mitchell Institute #317 & #318

• Classroom: Mitchell Physics Building #203

• Lecture time: Tuesdays and Thursdays, 12:45 to 2pm


• Clicker: i>clicker (original version, not i>clicker 2 nor i>clicker+)

• Office hours (please make an appointment by email or phone call):
  o Lucas: Tuesdays 2-5pm, Thursdays 2-4pm
  o Yi: Mondays 4-7pm
  o Steven: Tuesdays 3-4:30pm & Wednesdays 9:30-11am
Homework

- there will be a total of 13 homework assignments (about one per week)
- homework will count for 30% of the total grade
- the assignments will always be due before class (12:45 pm) on Tuesdays
- late homework will receive no credit
- you may not collaborate with other students on the homework assignments
- all assignments will be done online at http://www.masteringastronomy.com
- you must register at the website using a code that is included with each brand-new copy of the textbook. If you have a used textbook, you can purchase a code at the website.
- Once you have registered at the website, you must “enroll” in our class by using the following class code: TAMUASTR101S503FA12

Exams

- There will be a total of four exams. Each exam will count for 15% of the final grade.
- The exams will test your knowledge of the concepts discussed in class and the homework through a variety of multiple-choice and fill-in-the-blank questions.
- Each exam will cover the material presented in 3 or 4 chapters of the textbook.
- The first three exams will take place at the usual lecture time on Thursday, September 27th, Thursday, October 18th and Thursday, November 8th. The fourth exam will take place during finals week, on Wednesday, December 12th at 8am.
Class attendance and participation

- Reading the assigned chapters before lecture, attending class, and actively participating during class are integral parts of this course.
- You should set aside a minimum of two hours a week to read the assigned chapter in depth, review the summary of key concepts at the end of each chapter, and test your understanding of the material by answering the review questions.
- Reading and attendance will be monitored through the use of iClickers, which you must bring with you to every lecture.
  - We will use the clickers at the beginning of each lecture for a short “reading” quiz based on the assigned chapter and the material covered in the previous lecture. This will count for 5% of your final grade.
  - We will use the clickers throughout the rest of lecture for audience participation. This will count for 5% of your final grade.
- Asking a classmate to use your iClicker in your absence will be considered a violation of the Honor Code

Use of electronic devices in class

- Using a cell phone, iPod or similar device during class for any reason (including texting) is strictly prohibited. These devices should be turned off or placed in silent mode prior to the start of class.
- The use of a laptop or a tablet during class is only allowed for class-related activities, such as taking notes.
- Any student found violating these rules will be asked to leave the classroom for the remainder of the lecture and will not be credited with class attendance or participation for that lecture.
Grading policy

If you miss an exam, only officially excused absences as outlined in the University Regulations will be accepted. In this case you have to contact the course instructor as soon as possible. Very few conditions qualify as an authorized excused absence, so avoid missing an exam under all circumstances.

Exam grades may be curved depending on special conditions for a particular exam. The course grade will be determined from the various components of the course as outlined in the preceding pages in the following way:

(a) Homework will count for 30%
(b) Each of the four exams will count for 15%, for a total of 60%
(c) iClicker quizzes and class participation will count for 10%

Tentative grading table (adjustments are possible):

- % of all possible points ≥ 90: A
- 80 ≤ % of all possible points < 90: B
- 70 ≤ % of all possible points < 80: C
- 60 ≤ % of all possible points < 70: D
- % of all possible points < 60: F
ADA Policy

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 special accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.

Your Responsibilities

Texas A&M University assumes that all students enroll in its programs with a serious learning purpose and expects them to be responsible individuals who demand of themselves high standards of honesty and personal conduct. All students are expected to behave at all times with respect and courtesy toward their fellow students and instructors and are to have the highest standards of honesty and integrity in their academic performance. Any behavior that disrupts the classroom learning environment or any attempt to present work that the student has not actually prepared as their own work, or to pass an examination by improper means, is regarded as a serious offense. The minimum penalty for such an offense is a failing grade for this course. Aiding and abetting the above behavior is also considered a serious offense resulting in equally severe penalties.

I consider it a privilege to work with students of such character as that of Aggies. The Honor Code sets Texas A&M apart from other universities, and you should be proud of the standard this sets. I expect that you will abide by the Aggie Code of Honor:

The Aggie Honor Code: An Aggie does not lie, cheat or steal, or tolerate those who do

Further information regarding the Honor Council Rules and Procedures may be found on the web at http://www.tamu.edu/aggiehonor
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<td>EXAM #4 (Ch 14-17)</td>
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Texas A&M University  
Core Curriculum  
Initial Request for a lower division course included in the current Core Curriculum to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): ___ Physics & Astronomy ___  
   Course prefix and number: ASTR 111 ___  
   Texas Common Course Number: ASTR 1403 ASTR 1303 ASTR 1103 ___  
   Complete course title: Overview of Modern Astronomy ___  
   Semester credit hours: 4 ___

2. This request is for consideration in the following Foundational Component Area: ___ Communication ___ Creative Arts ___ Mathematics ___ American History ___ Life and Physical Sciences ___ Government/Political Science ___ Language, Philosophy and Culture ___ Social and Behavioral Sciences ___

3. This course should also be considered for International and Cultural Diversity (ICD) designation: ___ Yes ___ No ___

4. How frequently will the class be offered? Every Fall and Spring semester (ASTR 111 first offered F2010) ___

5. Number of class sections per semester: 2 to 4 classes with total of 12 to 16 lab sections ___

6. Number of students per semester: 130 to 280 (projected to grow to target of 400) ___

7. Historic annual enrollment for the last three years: ___

   F2011/S2012: 381  
   F2010/S2011: 280  
   F2009/S2010: not yet available ___

8. 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 ___

9. Submitted by: ___

   Course Instructor ___

   Date: 01 March 2013 ___

10. Approvals: ___

    Date: 3/4/2013 ___

11. Department Head ___

    Date: 3/5/13 ___

    Associate Provost for Undergraduate Studies ___

    Texas A&M University ___

See form instructions for submission/approval process ___
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 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?

ASTRONOMY 111 (4 credits): OVERVIEW OF MODERN ASTRONOMY
Roots of modern astronomy; the scientific method; fundamental physical laws; the formation of planets, stars, and galaxies; introduction to cosmology; includes an integrated laboratory that reinforces the lecture topics, including hands-on experience with telescopes and imaging of celestial objects; not open to students who have taken ASTR 101 or ASTR 314.

The science of astronomy involves centuries of discovery and analysis, along with the (sometimes radical) revision of our understanding of the entire universe. As such, it casts its net over the widest possible array of topics, from the interaction of light with matter at the atomic level to the gravitational interaction of clusters of galaxies. Astronomical discoveries from the Greeks to the present provide many illustrative examples of the scientific method whereby observations are analyzed, hypotheses are formulated, predictions are made, and hypotheses are confirmed, revised, or rejected. ASTR 111 provides a solid foundation for students to understand what science is and what science is not. The lectures introduce students to nearly all fundamental topics of modern science including basic natural forces (Gravity, Electromagnetism, and the Strong and Weak forces), thermodynamics, Special and General relativity, quantum mechanics, modern particle physics, and cosmology. By applying scientific thinking to the natural world, students learn, e.g. why night is shorter in summer and longer in winter, what powers the sun, how stars die, why galaxies differ in shape, and how the universe began. The integrated laboratory component of the course consists of scientific experiments that test hypotheses and reinforce class material. These experiments give the students hands-on experience with small commercial telescopes, the analysis of data obtained with those telescopes, and access to recent digital data obtained with professional-caliber facilities.

For more information, please contact the Undergraduate Astronomy Coordinator Dr. Kim-Vy Tran (vy@physics.tamu.edu) and visit the website astronomy.tamu.edu

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

**Astronomy 111** is structured around general questions about science and its place in our world. We stress the use of the scientific method in answering questions. We give instruction in astronomy specifically, but give an appreciation of the broader context of that knowledge. In particular, we will show that gaining a scientific body of knowledge involves mastery of concepts and specific viewpoints, much more than simply learning a set of facts. We show what types of questions can be posed and how they are answered in a scientific context; this necessarily involves explanation of how scientific theories are developed and tested and the nature of science and limits of empirical knowledge. Astronomy is well tuned to this sort of instruction; both due to its intrinsic interest, but also because the span of time and spatial scales involved are so much greater than human experience.

Astronomy 111 includes instruction in issues that connect astronomical knowledge and associated scientific methodology more generally to concepts that unify the natural sciences and that are related to a broader cultural context. We show the importance of cause and effect reasoning in the scientific world view, demonstrate the characteristic scales and proportions of natural phenomena, explain the ways in which the Universe and local environment change and evolve, reveal the general applicability of natural laws, illustrate the role of mathematics in science, and discuss the historical development of science and impact on culture and general intellectual progress. Individual student progress is assessed regularly throughout the semester using metrics that include homework, in-class participation via polling, exams, and lab quizzes.

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

Communication is key to science and the students develop communication skills on multiple levels including analytic and written skills as part of the assignments as well as verbal skills during lectures and lab. Astronomy also is particularly attuned to teaching students visual interpretation and understanding, specifically by using figures and images of astronomical objects to infer empirical relations and thus learn universal physical concepts as well as to navigate the sky using celestial coordinates. The course components are designed to teach students how to explain the scientific process, describe basic physical concepts and general characteristics of astronomical objects, apply scientific thinking to the natural world, and formulate a scientific hypothesis. Individual student progress is assessed regularly throughout the semester using metrics that include homework, exams, and lab quizzes.
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Empirical and Quantitative Skills (to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions):

In addition to regular homework and exams that help develop empirical and quantitative skills, ASTR 111 includes a laboratory component that supplements and reinforces the lecture material by guiding the students through a series of experiments to test hypotheses and thus learn the scientific process. The students apply the scientific method by acquiring data from existing archives, and they learn skills involving data reduction, analyzing their experimental results, and interpreting their scientific conclusions. The lab includes collecting digital night-time astronomical data as well as learning fundamentals of statistical and random errors, simple statistics, analysis of results oriented towards topics related to concurrent lecture material (i.e. the properties of light, atomic structure, the surface temperature and spectrum of stars, distances to the nearest stars), and connections between theory and data.

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

As part of the integrated lab for ASTR 111, students learn to work effectively in teams and as part of a larger group to take astronomical observations, obtain and analyze data, interpret their results, and possibly reconcile differing interpretations. The students work in pairs on the lab experiments which include building individual telescopes, measuring light from celestial objects, plotting measurements and assessing errors, determining relations between variables, and applying scientific theory to understand the underlying physical explanation. The students must be able to work as a team to understand the basic scientific concepts, test their understanding, apply their knowledge, and determine the correct outcome.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
ASTRONOMY 111: OVERVIEW OF MODERN ASTRONOMY (FALL 2011)

COURSE DESCRIPTION: Roots of modern astronomy, the scientific method, fundamental physical laws, the nature and formation of planets, stars, and galaxies. Introduction to cosmology. Course includes an integrated laboratory that reinforces and includes supplemental information related to the lecture topics, including hands-on experience with telescopes and digital imaging of celestial objects. Not open to students who have taken ASTR101 or ASTR314.

PREREQUISITES: None. Course uses basic (high school level) algebra and geometry.

COURSE CONTENT: 3 Lecture hours and 2 Laboratory hours each week (4 credit course)

COURSE OBJECTIVES: By the conclusion of this course, students should be able to:

- Explain the scientific process and how scientific theories are developed and tested.
- Recall basic physical concepts such as gravitational and conservation laws, and how light and matter interact.
- Describe the general characteristics of our solar system and the universe.
- Apply scientific thinking to the natural world to understand, e.g. what powers the sun, why galaxies differ, and how the universe began.
- Formulate a scientific hypothesis, identify a testable prediction, verify by carrying out an experiment, and assess the results.
- Work effectively in a laboratory group.

Logistics

LECTURER: Asst. Prof. Kim-Vy Tran (vy@physics.tamu.edu)

PHONE NUMBER: Google voice 1-979-258-1054
(immediately rings my phone, sends text of voicemail, and sends voicemail recording to my email)

“Astronomy 111: Handbook” (available at Notes & Quotes; www aggienotes.com)

EQUIPMENT: iClicker
(bring to every lecture; register your iClicker in class with roll call)

LECTURES (SECTION 511 & 201): 08:00 – 09:15 on Tuesdays & Thursdays in MPHY 213
LECTURES (SECTION 505 – 510): 12:45 – 14:00 on Tuesdays & Thursdays in MPHY 203

ON DEMAND OFFICE HOURS: Please email or call me to request an appointment at any time. My office is in the Mitchell Institute (MIST 324).

CLASS WEBSITE: http://faculty.physics.tamu.edu/vy/ASTR111-fall11/
ELEARNING WEBSITE: http://elearning.tamu.edu/
Check here for links to class website and online homework, and exam grades.

LABORATORY COORDINATOR: Dr. Jennifer Marshall, Munneryn Astronomical Lab Building, marshall@physics.tamu.edu

All lab sections meet the second week of classes (starting 05 September) in MPHYS 331.
Bring sturdy Lab or Composition Notebook with about 80 pages and the Astronomy 111 Lab Handbook (Fall 2011 Edition, purchase at Notes & Quotes).

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
<th>TA</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Monday</td>
<td>11:30-13:30</td>
<td>Mike Smitka</td>
<td><a href="mailto:mikesmitka34@neo.tamu.edu">mikesmitka34@neo.tamu.edu</a></td>
</tr>
<tr>
<td>511</td>
<td>Monday</td>
<td>16:10-18:10</td>
<td>Mike Smitka</td>
<td><a href="mailto:mikesmitka34@neo.tamu.edu">mikesmitka34@neo.tamu.edu</a></td>
</tr>
<tr>
<td>505</td>
<td>Thursday</td>
<td>09:35-11:35</td>
<td>Heath Shipley</td>
<td><a href="mailto:heath.shipley@tamu.edu">heath.shipley@tamu.edu</a></td>
</tr>
<tr>
<td>506</td>
<td>Wednesday</td>
<td>13:50-15:50</td>
<td>Ting Li</td>
<td><a href="mailto:sazabi@neo.tamu.edu">sazabi@neo.tamu.edu</a></td>
</tr>
<tr>
<td>507</td>
<td>Tuesday</td>
<td>15:55-17:55</td>
<td>Adam Tomczak</td>
<td><a href="mailto:tomczak@neo.tamu.edu">tomczak@neo.tamu.edu</a></td>
</tr>
<tr>
<td>508</td>
<td>Wednesday</td>
<td>16:10-18:10</td>
<td>Adam Tomczak</td>
<td><a href="mailto:tomczak@neo.tamu.edu">tomczak@neo.tamu.edu</a></td>
</tr>
<tr>
<td>509</td>
<td>Monday</td>
<td>09:10-11:10</td>
<td>Heath Shipley</td>
<td><a href="mailto:heath.shipley@tamu.edu">heath.shipley@tamu.edu</a></td>
</tr>
<tr>
<td>510</td>
<td>Thursday</td>
<td>15:55-17:55</td>
<td>Ting Li</td>
<td><a href="mailto:sazabi@neo.tamu.edu">sazabi@neo.tamu.edu</a></td>
</tr>
</tbody>
</table>

**Class Requirements**

- **Homework (10%):** 12 assigned, only 10 count towards final grade (late homework receives no credit). The 11th and 12th homeworks count as extra credit. Online homework is:
  
  http://smartwork.wwnton.com/

- **Class Participation (5%):** in-class questions & polling with iClicker; tutorials

- **Three Mid-term Exams (45%):** fill-in-the-blank and essay questions. If your Final exam grade is higher than your (single) lowest mid-term grade, the Final exam grade will replace the (single) lowest mid-term grade.

  **If you receive a “0” for any of the mid-term exams, the “0” will not be replaced.**

- **Final Exam (15%):** fill-in-the-blank and essay questions

- **Laboratory (25%):** 11 labs completed over the course of the semester; will include two trips to the TAMU Physics Observatory. See syllabus in ASTR111 Lab Handbook for more details.

**Approximate Grading Scale:**

A (≥90%), B (80–89%), C (70–79%), D (60–69%), F (<60%)

**Time Investment:** For the Lecture component, you are expected to spend approximately 12 hours total per week on the material (3 hours in lecture, 6 hours reading, and 3 hours on homework). For the lab component, you are expected to spend 4 hours per week (2 hours in lab and 2 hours preparing/finishing labwork).

**Homework Structure**

There will be a total of 12 homeworks assigned during the semester but only 10 will count towards your homework component of 10%. The 11th and 12th homeworks count as extra credit, e.g. if you missed one of the previous 10 homeworks. Each of the 12 homeworks is worth 1% towards your final grade, meaning that there is a potential 2% worth of extra credit if you complete all 12 homeworks.

Each assignment is due by 17:00 on Tuesday and late homework receives no credit. All assignments need to be completed online at:

http://smartwork.wwnton.com/
You must first register at the Smartwork website with a code that is included in each new copy of the textbook; if you have a used textbook, you will need to purchase a new code on the Smartwork website. Only use your first and last name to register, i.e. do not include your university ID number. Once you have registered at the website, you must “enroll” in our class using the following enrollment key:

If your lecture is at 08:00 on Tuesdays & Thursdays: BLUMEN1680
If your lecture is at 12:45 on Tuesdays & Thursdays: BLUMEN1688

Mobile phones, Electronic Devices, & Electronic Communication

There is a strict no laptop/no mobile devices policy for this class; all laptops and mobile devices must remain closed during lecture.

This is hopefully obvious, but you should turn off your mobile phone prior to the start of class; texting or any other use of a mobile phone during class is not allowed. Texting via your laptop with, e.g. iChat or Skype, is also not allowed. The no electronic communication/distraction policy also applies to iPods, iPhones, Blackberries, and any other such devices. These activities during class are distracting and disrespectful to both your fellow students and me.

Your Responsibilities

Texas A&M University assumes that all students enroll in its programs with a serious learning purpose and expects them to be responsible individuals who demand of themselves high standards of honesty and personal conduct. All students are expected to behave at all times with respect and courtesy toward their fellow students and instructors and are to have the highest standards of honesty and integrity in their academic performance. Any behavior that disrupts the classroom learning environment or any attempt to present work that the student has not actually prepared as their own work, or to pass an examination by improper means, is regarded as a serious offense. The minimum penalty for such an offense is a failing grade for this course. Aiding and abetting the above behavior is also considered a serious offense resulting in equally severe penalties.

The Honor Code sets Texas A&M apart from other universities, and you should be proud of this standard. I expect that you will abide by the Aggie Academic Integrity Statement and Policy:

AN AGGIE DOES NOT LIE, CHEAT OR STEAL,
OR TOLERATE THOSE WHO DO.

Further information regarding the Honor Council Rules and Procedures may be found on the web at http://www.tamu.edu/aggiehonor

ADA Policy

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## Astronomy 111: Class Schedule (Fall 2011)

http://smartwork.wworton.com/

<table>
<thead>
<tr>
<th>WEEK</th>
<th>LECTURE</th>
<th>DATE</th>
<th>ASSIGNMENT (READ CHAPTERS BEFORE LECTURE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>30 Aug</td>
<td>Ch. 1, 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* HW1 assigned on Ch. 1, 2 (due 06 Sept)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ch. 2; Tutorial (Seasons)</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>06 Sept</td>
<td>Ch. 3; Tutorial (Kepler’s 2nd Law)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* HW2 assigned on Ch. 3 (due 13 Sept)</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>08 Sept</td>
<td>Ch. 3; Tutorial (Newton’s Laws &amp; Gravity)</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>13 Sept</td>
<td>Ch. 3, 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* HW3 assigned on Ch. 4 (due 20 Sept)</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>20 Sept</td>
<td>Ch. 4; Tutorial (Blackbody Radiation)</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>22 Sept</td>
<td>Ch. 4; Summary &amp; review</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>27 Sept</td>
<td>Mid-term #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ch. 5; Tutorial (Telescopes)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>* HW4 assigned on Ch. 5, 6 (due 04 Oct)</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>29 Sept</td>
<td>Ch. 5, 6; Tutorial (Solar System)</td>
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<td></td>
<td>11</td>
<td>04 Oct</td>
<td>Ch. 6, 7; Tutorial (Earth’s Changing Surface)</td>
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<td></td>
<td></td>
<td></td>
<td>* HW5 assigned on Ch. 6, 7 (due 11 Oct)</td>
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<td></td>
<td>12</td>
<td>06 Oct</td>
<td>Ch. 7, 9</td>
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<tr>
<td>7</td>
<td>13</td>
<td>11 Oct</td>
<td>Ch. 9, 10</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>13 Oct</td>
<td>* HW6 assigned on Ch. 9, 10 (due 18 Oct)</td>
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<tr>
<td></td>
<td>15</td>
<td>18 Oct</td>
<td>Ch. 10; Summary &amp; review</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>20 Oct</td>
<td>Mid-term #2</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>25 Oct</td>
<td>* HW7 assigned on Ch. 13 (due 25 Oct)</td>
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<tr>
<td></td>
<td>18</td>
<td>27 Oct</td>
<td>Ch. 13; Tutorial (The Parsec)</td>
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<tr>
<td>9</td>
<td>19</td>
<td>01 Nov</td>
<td>Ch. 13, 14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* HW8 assigned on Ch. 14, 15 (due 01 Nov)</td>
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<tr>
<td></td>
<td>20</td>
<td>03 Nov</td>
<td>Ch. 14, 15; Tutorial (Star Formation)</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>08 Nov</td>
<td>Ch. 15, 16</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>10 Nov</td>
<td>Ch. 16, 17</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>15 Nov</td>
<td>Mid-term #3</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>17 Nov</td>
<td>Ch. 18; Tutorial (Expanding Universe)</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>22 Nov</td>
<td>* HW10 assigned on Ch. 18, 19 (due 22 Nov)</td>
</tr>
<tr>
<td>12</td>
<td>26</td>
<td>24-25 Nov</td>
<td>Ch. 18, 19; Tutorial (Galaxy Classes)</td>
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<tr>
<td></td>
<td>27</td>
<td>29 Nov</td>
<td>Ch. 19, 20</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>01 Dec</td>
<td>* HW11 assigned on Ch. 19, 20 (due 29 Nov)</td>
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<tr>
<td>14</td>
<td>29</td>
<td>06 Dec</td>
<td>THANKSGIVING HOLIDAY (no classes)</td>
</tr>
<tr>
<td>15</td>
<td>30</td>
<td>09 Dec</td>
<td>Redefined Thursday; Summary &amp; review</td>
</tr>
<tr>
<td>16</td>
<td>13 Dec</td>
<td>Final Exam: 12:30-14:30 (for lecture TR@12:45)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Final Exam: 13:00-15:00 (for lecture TR@08:00)</td>
<td></td>
</tr>
</tbody>
</table>
Texas A&M University
Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum
to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Geology & Geophysics

2. Course prefix and number: GEOL 101

3. Texas Common Course Number: GEOL 1303, 1103, 1403

4. Complete course title: Principles of Geology

5. Semester credit hours: 4

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
   - Current Core - No

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 semester

9. Number of class sections per semester: 50 fall and spring, 5 summer

10. Number of students per semester: 1000

11. Historic annual enrollment for the last three years: 1,884 1,956 2,391

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. Submitted by:
   - Michael
   - 1/14/13

   Course Instructor

13. Approval:
   - 1/14/13

   Department Head

14. College Dean/Designee
   - 1/17/13

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 2014 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.

How does the proposed course specifically address the Foundational Component Area definition above?

Course topics will follow the *Earth Science Literacy Principles*, published by the Earth Science Literacy Project (http://www.earthscienceliteracy.org). This NSF-sponsored publication was developed in conjunction with every major geosciences professional society. The overall focus of the course is on understanding the functioning of Earth systems. A lab provides practical exposure to scientific reasoning and the scientific method as they are applied to geological problems.

**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.

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

Critical thinking will be integrated into each learning objective through lab activities allowing students to work with geological data. The lab will provide exercises requiring students to think critically about geological problems by 1) identifying data and areas of uncertainty, 2) distinguishing between data that are relevant and irrelevant to specific problems, and 3) logically testing hypotheses. Evaluation will be based on written lab reports and quizzes and graded using a rubric based on the Steps for Better Thinking Competency Rubric (Walcott, 2006; http://www.WolcottLynch.com). Lectures will provide examples of evidence-based reasoning providing the basis for major geological theories; lab instructors will guide students through specific examples and provide feedback on exercises.

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

Communication will be integrated into each learning objective through lab discussions, debates, reports, and quizzes. The lab will provide exercises requiring students to communicate about geological problems by 1) organizing written and oral discussions in order to emphasize relevant data and provide a logical flow to a well-supported conclusion, and 2) supporting written text with well-chosen diagrams or illustrations. Evaluation will be based on debates and written lab reports and quizzes. Students will be supplied with examples of excellent, satisfactory, and poor geological writing and asked to compare with their own writing.

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

Empirical and quantitative skills will be integrated into each learning objective through lab reports and quizzes. The lab will provide exercises requiring students to use empirical and quantitative skills to solve geological problems by 1)
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

constructing and analyzing graphs, 2) describing three-dimensional structures or surfaces from two-dimensional representations (e.g. maps or projections), and 3) identifying patterns or trends from historical data. Lectures will regularly include examples of graphs, maps, and historical data.

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

Teamwork will be integrated into many learning objectives through group lab exercises. The lab will provide several exercises requiring students to work in teams to solve geological problems by 1) recognizing different points of view, 2) designing and executing plans to test or reconcile opposing hypotheses, and 3) identifying and reporting areas of uncertainty that prevent consensus.

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  GEOL 101: Principles of Geology  
Term  Fall 2014  
Meeting times and location  

Course Description and Prerequisites  
Physical and chemical nature of the Earth and dynamic processes that shape it; plate tectonics, Earth's interior, materials it is made of, age and evolution, earthquakes, volcanism, erosion and deposition; introduces physical and chemical principles applied to the Earth. Not open to students who have taken GEOL 104 or GEOL 320.  

Prerequisites: none  

Learning Outcomes  
Students who successfully complete GEOL 101 will demonstrate knowledge of the following general themes in the geological sciences.  
- Rocks and other materials record the 4.6 billion year history of the Earth. A variety of rock types are distributed throughout the Earth's surface and interior.  
- The Earth is a complex system of interacting rock, water, air, and life.  
- The Earth is continuously changing through geological, hydrological, physical, chemical, and biological processes that are explained by laws.  
- Plate tectonics is a unifying theory that explains many dynamic features of the Earth.  
- Water plays critical roles in a wide range of surface and subsurface Earth processes.  
- Life evolves on a dynamic Earth and continuously modifies the Earth.  
- Humans depend on the Earth for resources.  
- Natural hazards pose risks to humans.  
- Humans significantly alter the Earth.  

Students will learn how to use and express the above bodies of geological knowledge through individual and group lab exercises that will also develop the following core skills. Students will be assessed on both knowledge and skills in exercises and tests in lab. (For instance, students may be asked to work in groups to identify specific rocks that would record information about the tectonic history of a region, analyze a map showing the distribution of their selected rocks, and then report their findings in writing.)  
- Think critically about geological problems by 1) identifying data and areas of uncertainty, 2) distinguishing between data that are relevant and irrelevant to specific problems, and 3) logically testing hypotheses.  
- Communicate about geological problems by 1) organizing written and oral discussions in order to emphasize relevant data and provide a logical flow to a well-supported conclusion, and 2) supporting written text with well-chosen diagrams or illustrations.  
- Use empirical and quantitative skills to solve geological problems by 1) constructing and analyzing graphs, 2) describing three-dimensional structures or surfaces from two-dimensional representations (e.g. maps or projections), and 3) identifying patterns or trends from historical data.  
- Work in teams to solve geological problems by 1) recognizing different points of view, 2) designing and executing plans to test or reconcile opposing hypotheses, and 3) identifying and reporting areas of uncertainty that prevent consensus.  

---  

1 Learning outcomes are modified from Earth Science Literacy Principles, published by the Earth Science Literacy Project (http://www.earthscienceliteracy.org).
Instructor Information

Name: Michael Tice
Telephone number: 845-3138
Email address: mltice@geos.tamu.edu
Office hours: 314 Halbouty

Textbook and/or Resource Material

Tarbuck, Lutgens, and Tasa, Earth, 10th Ed., 2011
Busch, Physical Geology Laboratory Manual, 4th Ed.

Grading Policies

Grades will be assigned based on the following assessments: three tests (total of 30%), lab (30%), and final exam (40%). All grades will be rounded to the nearest tenth of a percent (i.e. 89.95% → 90.0%, 89.94% → 89.9%) and converted to a letter grade as follows: 90.0–100.0 = A, 80.0–89.9 = B, 70.0–79.9 = C, 60.0–69.9 = D, <60.0 = F.

Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading (Tarbuck page numbers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to class and geology; the scientific method; introduction to geologic time; origin of the solar system; Earth's internal structure and external features; plate tectonics</td>
<td>1–22, 22–29</td>
</tr>
<tr>
<td>2</td>
<td>Minerals and the rock cycle</td>
<td>29–34, 87–105</td>
</tr>
<tr>
<td>3</td>
<td>Igneous rocks</td>
<td>107–128, 128–135</td>
</tr>
<tr>
<td>4</td>
<td>Volcanoes; weathering and sedimentary rocks</td>
<td>137–171, 173–186, 199–214</td>
</tr>
<tr>
<td>5</td>
<td>Test 1; sedimentary rocks</td>
<td>214–227</td>
</tr>
<tr>
<td>6</td>
<td>Metamorphic rocks; relative time</td>
<td>229–253, 255–267</td>
</tr>
<tr>
<td>7</td>
<td>Absolute time; crustal deformation</td>
<td>267–277, 279–290</td>
</tr>
<tr>
<td>8</td>
<td>Crustal deformation</td>
<td>290–301</td>
</tr>
<tr>
<td>9</td>
<td>Test 2; Earthquakes</td>
<td>303–331</td>
</tr>
<tr>
<td>10</td>
<td>Divergent plate boundaries; convergent plate boundaries</td>
<td>381–403</td>
</tr>
<tr>
<td>11</td>
<td>Convergent plate boundaries; groundwater</td>
<td>381–403, 461–487</td>
</tr>
<tr>
<td>12</td>
<td>Groundwater and streams; deserts and winds</td>
<td>429–459, 515–535</td>
</tr>
<tr>
<td>13</td>
<td>Test 3; glaciers and glaciations</td>
<td>489–517</td>
</tr>
<tr>
<td>14</td>
<td>Geologic record of global climate change; petroleum geology</td>
<td>575–607</td>
</tr>
</tbody>
</table>

Americans with Disabilities Act (ADA)

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Academic Integrity
For additional information please visit: http://aggiehonor.tamu.edu

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Texas A&M University

Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Geology & Geophysics

2. Course prefix and number: GEOL 106

3. Texas Common Course Number: GEOL 1304, 1104, 1404

4. Complete course title: Historical Geology

5. Semester credit hours: 4

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

   ☑ Life and Physical Sciences
   ☐ Communication
   ☐ Mathematics
   ☐ 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 and spring

9. Number of class sections per semester: 6

10. Number of students per semester: 100

11. Historic annual enrollment for the last three years: 206 182 194

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. Submitted by: [Signature]

   Course Instructor

   [Signature]

   Department Head

   [Signature]

   College Dean/Designee

   [Signature]

   Date: 1/17/13

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 2014 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.

How does the proposed course specifically address the Foundational Component Area definition above?

This course focuses on the physical, chemical, and biologic changes that have taken place on Earth since its formation 4.6 billion years ago. Particular emphasis will be placed on the biosphere and how scientists use the fossil record to help reconstruct Earth's past. Students will see how the scientific method is applied to reconstruct the past and will have numerous opportunities to engage in geologic inquiry. The scientific method is applied in laboratory exercises to interpret past Earth surface conditions and reconstruct the sequence of events in Earth history.

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.

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

Critical thinking skills will be emphasized in all graded lab activities. In particular, students will interpret depositional environments based on observations of sedimentary rocks and fossils. Students will analyze radiometric measurements to identify outliers when estimating geologic ages. Students will assess cause-and-effect feedbacks in Earth history using data from the rock record.

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

Communication skills will be emphasized in all graded lab activities and in oral group presentations. Students will present Earth history using distance as a metaphor for geologic time. Students will build phylogenetic trees showing the evolutionary relationships among biological lineages. Students will diagram the distribution of time in a stratigraphic cross-section using Wheeler diagrams. Students will display quantitative radiometric age data as scatterplots with all units and quantities clearly labeled. Students will orally present and defend group stratigraphic interpretations to the class.

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

Students will develop and test interpretations of ancient depositional environments from sedimentary rocks and fossils in the laboratory and in the field. Students will use geologic materials to construct and interpret geologic maps. Students will construct stratigraphic cross-sections based on correlation of geologic successions from multiple locations. Students will construct cladograms depicting the degree of evolutionary relatedness of different organisms.
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

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

Students will measure and describe a stratigraphic succession in the field as a group; they will present and defend their interpretation to the class. Students will develop and test competing hypotheses to explain the properties of sedimentary rocks as a group in lab; they will present a scientifically defendable consensus interpretation.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
GEOL 106 SYLLABUS
HISTORICAL GEOLOGY
XXX Semester 20XX, Sections XXX-XXX

Professor: XXX XXX
XXX Halbouty Building
office phone: 845-XXXX
e-mail: XXX@geos.tamu.edu

Office Hours: XXX
XXX
or by appointment

Time and Place: XXX

Course Description and Prerequisites: “Historical Geology. (3-3). Credit 4. Hypotheses of Earth's
origin; age dating of geologic materials; development and history of life; plate tectonic reconstructions,
geologic history, and paleogeography, with emphasis on the North American plate. Not open to students
who have taken GEOL 101 or GEOL 104.”

Learning Outcomes
Upon successful completion of this course, students will:
• Scale the timeline of major events in Earth history.
• Reconstruct past continental configurations.
• Interpret past depositional environments using sedimentary rocks and fossils.
• Correlate stratigraphic successions from different locations.
• Translate stratigraphic data into a time framework.
• Calculate radiometric ages.
• Construct and interpret phylogenetic trees.

Core Objectives

Critical Thinking
• Students will interpret depositional environments based on observations of sedimentary rocks and
fossils.
• Students will analyze radiometric measurements to identify outliers when estimating geologic
ages.
• Students will assess cause-and-effect feedbacks in Earth history using data from the rock record.

Communications Skills
• Students will present Earth history using distance as a metaphor for geologic time in both written
and oral formats.
• Students will build phylogenetic trees showing the evolutionary relationships among biological
lineages.
• Students will diagram the distribution of time in a stratigraphic cross-section using Wheeler
diagrams.
• Students will display quantitative radiometric age data as scatterplots with all units and quantities
clearly labeled.

Empirical and Quantitative Skills
• Students will develop and test interpretations of ancient depositional environments from
sedimentary rocks and fossils in the laboratory and in the field.
• Students will use geologic materials to construct and interpret geologic maps.
• Students will construct stratigraphic cross-sections based on correlation of geologic successions
from multiple locations.
• Students will construct cladograms depicting the degree of evolutionary relatedness of different
organisms.

Teamwork
- Students will measure and describe a stratigraphic succession in the field as a group; they will orally present and defend their interpretation to the class.
- Students will develop and test competing hypotheses to explain the properties of sedimentary rocks as a group in lab; they will prepare a scientifically defendable consensus interpretation in written form.

Textbook and Resource Material:

Grading Policies:
- Exam #1: 15%
- Exam #2: 15%
- Exam #3: 15%
- Exam #4: 15%
- Exam #5 (Final): 15%
- Lab: 25%

Letter grades will be assigned on the following scale:
A ≥ 90%, B ≥ 80% but < 90%, C ≥ 70% but < 80%, D ≥ 60% but less than 70%, and F < 60%.

Grades will be posted on the course web site: http://elearning.tamu.edu/

Academic Integrity: The Aggie Honor Code states that "An Aggie does not lie, cheat, or steal, or tolerate those who do." For more information, go to http://aggiehonor.tamu.edu

Disability Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statue 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 Texas A&M University Disability Services located in Room B118 Cain Hall, phone: 845-1637, web address: http://disability.tamu.edu/.

Schedule of Topics
(Subject to change at instructor’s discretion)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Required Reading (page numbers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 Geologic Dating and Timescale</td>
<td>125-150</td>
</tr>
<tr>
<td>Week 2 Origin of the Earth</td>
<td>239-250</td>
</tr>
<tr>
<td>Week 3 Archean Tectonics</td>
<td>250-256</td>
</tr>
<tr>
<td>Week 4 Origin and Evolution of Microbial Life</td>
<td>256-261</td>
</tr>
<tr>
<td>Week 5 Proterozoic Tectonics</td>
<td>266-268, 280-285</td>
</tr>
<tr>
<td>Week 6 Rise of Eukaryotic Life</td>
<td>269-275</td>
</tr>
<tr>
<td>Week 7 Proterozoic Climate</td>
<td>275-280</td>
</tr>
<tr>
<td>Week 8 Precambrian-Cambrian Transition</td>
<td>287-314</td>
</tr>
<tr>
<td>Week 9 Paleozoic Tectonics</td>
<td>314-340</td>
</tr>
<tr>
<td>Week 10 Paleozoic Climate</td>
<td>341-372</td>
</tr>
<tr>
<td>Week 11 Mesozoic Tectonics</td>
<td>373-402</td>
</tr>
<tr>
<td>Week 12 Mesozoic Climate</td>
<td>403-427</td>
</tr>
<tr>
<td>Week 13 Cenozoic Tectonics</td>
<td>429-452</td>
</tr>
</tbody>
</table>
Texas A&M University
Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum
to be considered for the Fall 2014 Core Curriculum

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

2. Course prefix and number: GEOS 210

3. Texas Common Course Number: N/A

4. Complete course title: Climate Change

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
   - Current core - Yes

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 semester

9. Number of class sections per semester: 3

10. Number of students per semester: 50-60

11. Historic annual enrollment for the last three years: 68 106 N/A

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.

13. Submitted by:
   [Signature]
   Course Instructor

   [Date] 2/11/2013

14. Department Head
   [Signature]
   Department Head

   [Date] 2/11/2013

15. College Dean/Designee
   [Signature]

   [Date] 2. 11. 13

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 2014 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.

How does the proposed course specifically address the Foundational Component Area definition above?

Climate change is one of the most important problems presently facing our society. As a result, it is imperative that students understand and be able to evaluate the competing claims made in the public debate over climate change. Specific objectives of the class include: develop an understanding of the physics of climate change, understand how the scientific method has been used to construct our current understanding of the problem, evaluate the ethical, economic, and environmental implications of climate change to our society, and understand the major policy options available to us.

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.

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

Climate change fundamentally requires critical thinking. The climate problem involves physics, biology, economics, philosophy, and other fields. Understanding climate therefore requires integrating, evaluating, and synthesizing ideas and concepts from diverse intellectual areas. These skills will be tested by the exams, which feature short answer questions that require students to demonstrate these skills.

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

Oral: At the end of every class, a group of 3-4 students will summarize the important messages from that day’s lecture. This requires the students to understand, synthesize, and summarize a huge body of complex information. Using a rubric, the rest of the class will then grade that group’s summary (and transmit the grades to me via clickers). Visual: Students will be required to work in groups (4-6 students) to create a youtube video explaining some aspect of climate science (e.g., how does the greenhouse effect work). The rest of the class will grade the group’s video using a rubric. Written: Several times during the semester, students will turn in written analyses of climate-change-related events in the news.

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

Mathematical calculations are an important component of the class. The first half of the class focuses on understanding how the greenhouse effect works and other aspects of the climate system. In studying this, the students learn and apply fundamental physical laws such as the Stefan-Boltzmann equation and work problems using it requiring algebra. During the discussions of policy options, the students learn about exponential discounting and use algebra to do simple cost-benefit analysis.
Teamwork (to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal):

Role-playing exercises are an important component of the instruction about the policy options. For example, when studying the “tragedy of the commons”, the students engage in an exercise in which they must work together to manage a hypothetical resource. In this exercise, the students learn that their individual incentives may not always align with society’s best interests. In addition, the end-of-class summaries and youtube project (both described above) require teamwork to complete.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
GEOS 210 – Climate change
Tu-Th 11:10-12:25 O&M 110

Mission statement: Climate change is one of the most important problems presently facing our society. As a result, it is imperative that students understand the basics of the climate change problem and be able to evaluate the competing claims made in the public debate over climate change. By the end of the semester, it is my goal that the student will be the most informed person on climate change in any room he or she happens to be in.

Lecturer:
Prof. Andrew Dessler
O&M 1210b
adessler@tamu.edu, 862-1427
Office hours: M 1-2 pm, Th 12:30-1:30 pm
(after lecture), or by appointment


Learning Outcomes
Upon successful completion of this course, students will be able to:
* Articulate why scientists think the present warming of the climate system is unequivocal.
* Describe how the greenhouse effect works and how humans are modifying the natural greenhouse effect.
* Articulate why scientists are confident that humans have become the dominant influence on the long-term evolution of climate.
* Explain how climate forecasts are produced and what scientists predict for the next century and millennium.
* Explain how climate changes will impact humans; give specific examples.
* Appraise, compare, and distinguish our policy options.
* Describe how a cap and trade and a carbon tax work.
* Appreciate what level of effort and what specific actions would be required to stabilize the climate.

Core objectives
Critical thinking: The climate problem involves physics, biology, economics, philosophy, and other fields. Understanding climate therefore requires integrating, evaluating, and synthesizing ideas and concepts from diverse intellectual areas.
Communication: During every class, a randomly selected (small) group of students will be required to summarize that day’s lecture and report to the entire class their results. This requires the students to understand, synthesize, and summarize a huge body of complex information.
**Empirical and quantitative skills:** Mathematical calculations are an important component of the class. Understanding how the greenhouse effect works and other aspects of the climate system requires the students learn and apply fundamental physical laws such as the Stefan-Boltzmann equation. During the discussions of policy options, the students learn about exponential discounting and use algebra to do simple cost-benefit analysis.

**Teamwork:** Role-playing exercises will be used to demonstrate the pitfalls that policy discussions can fall into. For example, when studying the “tragedy of the commons”, the students engage in an exercise in which they must work together to manage a hypothetical resource. In this exercise, the students learn that their individual incentives may not always align with society’s best interests.

**Studying Tips:** With the amount of material to cover during one semester, it is easy to get behind in an introductory course. In this course, we will constantly be building on what has been done before. Therefore, it is particularly important to attend class and to keep up with the reading. A little bit each day is much more effective than five hours in one session of study. You should be spending about 2 hours, outside class for every hour you spend in class. Since this is an introductory course, it is important to learn the terminology to understand what is being asked on exam questions. After each class, I strongly recommend you review your lecture notes, supplementing them with readings from the text.

Exam scores, additional readings, announcements, and other information (such as this syllabus) will be posted on TAMU eLearning, which is accessed by going to http://elearning.tamu.edu. Go to the “TAMU (NetID)” link. You will need your NetID and password.

**Class evaluation:**

<table>
<thead>
<tr>
<th>Points</th>
<th>Fraction of grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 exams 100 points each (200 points total)</td>
<td>25% each (50% total)</td>
</tr>
<tr>
<td>Clicker questions 40 points total (120 clicker questions during the semester @ 1/3 point per question)</td>
<td>10%</td>
</tr>
<tr>
<td>Class round-up 20 points total over the semester</td>
<td>5%</td>
</tr>
<tr>
<td>YouTube project 20 points</td>
<td>5%</td>
</tr>
<tr>
<td>Write-up of climate news 20 points over the semester</td>
<td>5%</td>
</tr>
<tr>
<td>Final exam 100 points</td>
<td>25%</td>
</tr>
<tr>
<td>Total 400 points</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Grade Scale**

- A: 350-400 points (88-100%)
- B: 310-349 (78-88%)
- C: 270-309 (68-78%)
Exams are multiple choice, short-answer, and numeric questions. You need to bring a calculator to your exams.

**Clickers:** We will use a classroom response system (aka “clickers”) in this class. We will be using the **i>clicker2** in this class. Here are some helpful links:
- i>clicker support: [http://www.iclicker.com/support/overview/](http://www.iclicker.com/support/overview/)

Clicker questions will be given at the beginning of each class. There will be ~120 questions during the semester (4-5 per class) and these will be on the reading assigned for that day or important concepts from a previous lecture.

**Class round-up:** At the end of every class, I select 2-3 random groups of 3-4 students each and ask them to summarize the important messages from that day’s lecture. This requires the students to understand, synthesize, and summarize a huge body of complex information. Using a rubric that I have provided, the rest of the class will then grade that group’s summary (and transmit the grades to me via clickers). This constitutes 10% of the students’ grade.

**YouTube project:** working in a group of 4-6 students, you will produce a 3-minute YouTube video that describes some aspect of climate (e.g., how the greenhouse effect works, how a cap and trade system works).

**Current events write-up:** Three times during the semester, you will turn in a one-page write-up of a climate story that is in the news. It will be graded on content and on the quality of the writing.

**Extra credit** for participation: participation is measured by the acquisition of “Schurte bucks” when you say something smart in class — they are worth 2 points each on the final exam. You can, in general, only get one per day, and you can get a maximum of 10 points of E.C. on the final.

**Facebook group:** [http://www.facebook.com/groups/266153916758531/](http://www.facebook.com/groups/266153916758531/)
I will post news articles, etc. The material posted will not be covered on exams, but it will help connect what we’re learning in class to the actual world. Thus, while optional, I recommend you join the group and read the posted articles.

**Attendance Policy:** Attendance will not be taken and will not count toward your grade.
**Absence Policy:** This class will follow the University’s policy for excused absences. For more information, please see Section 7 of the student rules: http://student-rules.tamu.edu/rule07

**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 the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall. The phone number is 845-1637. For additional information visit http://disability.tamu.edu.
Copyright and Plagiarism Policy
All materials used in this class are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions regarding academic dishonesty, please consult the Aggie Honor web site: http://aggiehonor.tamu.edu/

Know the Code
Aggie Code of Honor: "Aggies do not lie, cheat, or steal, nor do they tolerate those who do." Instances of scholastic dishonesty will be treated in accordance with Section 20 of the TAMU Student Rules. Please inform yourself on the student rules regarding cheating, plagiarism, fabrication of information, conspiracy at the Code of Honor website (http://aggiehonor.tamu.edu).

Note: Using another student's clicker in an attempt to earn points for that student or allowing another student to use your clicker in an attempt to earn points for you is considered cheating, and will be handled as such.
## Class Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 28, 2012</td>
<td>Intro to the class &amp; climate debate</td>
<td></td>
</tr>
<tr>
<td>Aug 30, 2012</td>
<td>Introduction to climate change</td>
<td></td>
</tr>
<tr>
<td>Sep 4, 2012</td>
<td>Is the climate warming, I</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>Sep 6, 2012</td>
<td>Is the climate warming, II</td>
<td></td>
</tr>
<tr>
<td>Sep 11, 2012</td>
<td>Simple physics, I</td>
<td>Chapter 3</td>
</tr>
<tr>
<td>Sep 13, 2012</td>
<td>Simple physics, II</td>
<td></td>
</tr>
<tr>
<td>Sep 18, 2012</td>
<td>How the greenhouse works, I</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>Sep 20, 2012</td>
<td>How the greenhouse works, II</td>
<td></td>
</tr>
<tr>
<td>Sep 25, 2012</td>
<td>Carbon cycle, I</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>Sep 27, 2012</td>
<td><strong>Exam 1 (covers chap. 1-4)</strong></td>
<td></td>
</tr>
<tr>
<td>Oct 2, 2012</td>
<td>Carbon cycle, II</td>
<td></td>
</tr>
<tr>
<td>Oct 4, 2012</td>
<td>Forcing and feedback, I</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>Oct 9, 2012</td>
<td>Forcing and feedback, II</td>
<td></td>
</tr>
<tr>
<td>Oct 11, 2012</td>
<td>Are humans causing climate change?</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>Oct 16, 2012</td>
<td>Future climate change, I</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Oct 18, 2012</td>
<td>Future climate change, II</td>
<td></td>
</tr>
<tr>
<td>Oct 23, 2012</td>
<td>Impacts of climate change, I</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>Oct 25, 2012</td>
<td><strong>Exam 2 (covers chap. 5-8)</strong></td>
<td></td>
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<tr>
<td>Oct 30, 2012</td>
<td>Exponentials and discounting, I</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>Nov 1, 2012</td>
<td>Exponentials and discounting, II</td>
<td></td>
</tr>
<tr>
<td>Nov 6, 2012</td>
<td>Policy options for climate change, I</td>
<td>Chapter 11</td>
</tr>
<tr>
<td>Nov 8, 2012</td>
<td>Policy options for climate change, II</td>
<td></td>
</tr>
<tr>
<td>Nov 13, 2012</td>
<td>Carbon tax &amp; cap and trade, I</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>Nov 15, 2012</td>
<td>Carbon tax &amp; cap and trade, II</td>
<td></td>
</tr>
<tr>
<td>Nov 20, 2012</td>
<td>History of climate change, I</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>Nov 22, 2012</td>
<td>Thanksgiving holiday -- no class</td>
<td></td>
</tr>
<tr>
<td>Nov 27, 2012</td>
<td>History of climate change, II</td>
<td>&quot;ClimateDebate&quot; on eLearning</td>
</tr>
<tr>
<td>Nov 29, 2012</td>
<td>Solving the problem</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>Dec 4, 2012</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Dec 7, 2012</td>
<td><strong>Final Exam (covers chap. 1-14)</strong></td>
<td>3-5 pm</td>
</tr>
</tbody>
</table>
Texas A&M University

Core Curriculum

Initial Request: for a lower division course included in the current Core Curriculum to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Physics and Astronomy

2. Course prefix and number: PHYS 201

3. Texas Common Course Number: PHYS 1401 or 1301 + 1101

4. Complete course title: College Physics

5. Semester credit hours: 4

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, summer

9. Number of class sections per semester: fall: 26 spring: 16 summer: 4

10. Number of students per semester: fall: 550 spring: 350 summer: 60

11. Historic annual enrollment for the last three years: 1111 1147 1137

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. Submitted by:  

☐ Course Instructor  

☐ Approvals:  

☐ Department Head  

☐ College Dean/Designee  

☐ Date: 3/4/2013  

☐ Date: 3/1/2013  

☐ Date: 3/5/13

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 2014 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?

   PHYS 201 College Physics. PHYS 201 teaches fundamental laws of physics and their application to mechanics, wave motion and thermodynamics. The physics concepts and laws are related to real-world phenomena and technology. The course includes applications of the Scientific Method and its use in the development of scientific theories. The laboratory and in-class lecture demonstrations connect the concepts developed in the course to real-world phenomena that are part of students' experiences.

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):

   Problem solving is a primary emphasis of the course. Students are taught how to apply physics laws and concepts to solving problems and analyzing data.

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

   Written communication is developed by teaching students to present their solutions to problems in a clear and logical fashion. This is tested on exams. Graded homework problems include essay questions. Visual communication skills are developed in the course through the construction and interpretation of graphical presentations of data. Students are taught that constructing diagrams and sketches is an important component of problem solving. Verbal communication skills are developed through in-class discussions. In addition, the first hour of the laboratory period is used for recitation, where assigned homework problems are discussed, in the context of the concepts presented in the lecture portion of the course. And in the laboratory portion of the course, taking data, analyzing data and writing the lab report requires discussion between the two lab partners.

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

   Homework and exam problems include analysis of data and numerical information. In the laboratory data is collected and analyzed and conclusions are reached.
Texas A&M University
Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

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 laboratory is conducted by teams of two students. The two members of the team must work together to collect and analyze data and to draw conclusions. Discussion in lecture and recitation involves considering different ways to approach a problem and working together to achieve the solution.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
Course Description: Fundamentals of classical mechanics, heat and sound.
Prerequisites: High school algebra and trigonometry or the equivalent.
Learning Outcomes: Upon completion of PHYS 201 a student will understand the basic laws and concepts of physics in the following areas and will be able to apply them in problems relating to physical situations: mechanics, mechanical waves, and thermodynamics.

Instructor: Lewis Ford  Web page: faculty.physics.tamu.edu/ford  email: ford@physics.tamu.edu
Office: MPHY 315  Office Hours: M 11 a.m.-noon, T 11- noon, W 1-2 p.m.  Office phone: 458-7908
Text: Physics 9th ed by Young, with Mastering Physics; PHYS 201 Lab Manual
Optional: Student Solutions Manual, Student Study Guide
Grading: 4 exams 60%; Final (comprehensive) 20%; Lab 7%; Recitation 5%; Homework (Mastering Phys) 8%
You must achieve 70% or better in the laboratory in order to pass the course.
If your grade on the Final Exam is higher than your lowest grade on one of the four exams during the semester, that lowest grade will be replaced by its average with the Final in computing the course grade.
Aug. 31 is last day for no record drop. Nov. 2 is the last day to Q-drop.
Final Exam is Monday, Dec. 10, 8 - 10 a.m.

Syllabus: (MC denotes multiple-choice problems)

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<th>Wk</th>
<th>Date</th>
<th>Topic</th>
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<th>Homework problems</th>
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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 the Department of Student Life, Services for Students with Disabilities, in Cain Hall, Room B118, or call 845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu).

**Academic Integrity Statement:** "An Aggie does not lie, cheat, or steal or tolerate those who do."
Texas A&M University

Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Physics and Astronomy

2. Course prefix and number: PHYS 202

3. Texas Common Course Number: PHYS 1402 or 1302 + L102

4. Complete course title: College Physics

5. Semester credit hours: 4

6. This request is for consideration in the following Foundational Component Area:
   - ☑ Life and Physical Sciences
   - 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, summer

9. Number of class sections per semester: fall: 9 spring: 14 summer: 2

10. Number of students per semester: fall: 190 spring: 280 summer: 40

11. Historic annual enrollment for the last three years: 632 696 729

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.

13. Submitted by: [signature]

   Course Instructor

   Approvals:
   [signature]

14. Department Head

   [signature]

15. College Dean/Designee

   [signature]

   Date 3/4/2013

   Date 3/4/2013

   Date 3/5/13

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.

Associate Provost

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Texas A&M University
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 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?

PHYS 202 College Physics. PHYS 202 teaches fundamental laws of physics and their application to electricity, magnetism, optics and modern physics. The physics concepts and laws are related to real-world phenomena and technology. The course includes applications of the Scientific Method and its use in the development of scientific theories. The laboratory and in-class lecture demonstrations connect the concepts developed in the course to real-world phenomena that are part of students’ experiences.

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):

Problem solving is a primary emphasis of the course. Students are taught how to apply physics laws and concepts to solving problems and analyzing data.

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

Written communication is developed by teaching students to present their solutions to problems in a clear and logical fashion. This is tested on exams. Graded homework problems include essay questions. Visual communication skills are developed in the course through the construction and interpretation of graphical presentations of data. Students are taught that constructing diagrams and sketches is an important component of problem solving. Verbal communication skills are developed through in-class discussions. In addition, the first hour of the laboratory period is used for recitation, where assigned homework problems are discussed, in the context of the concepts presented in the lecture portion of the course. And in the laboratory portion of the course, taking data, analyzing data and writing the lab report requires discussion between the two lab partners.

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

Homework and exam problems include analysis of data and numerical information. In the laboratory data is collected and analyzed and conclusions are reached.
Texas A&M University

Core Curriculum

*Initial Request for a Course Addition to the Fall 2014 Core Curriculum*

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 laboratory is conducted by teams of two students. The two members of the team must work together to collect and analyze data and to draw conclusions. Discussion in lecture and recitation involves considering different ways to approach a problem and working together to achieve the solution.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
PHYS 202 College Physics  Spring 2013  MWF 10:20

Course Description: Fundamentals of electricity, magnetism, optics and modern physics.
Prerequisites: High school algebra and trigonometry or the equivalent. PHYS 201.
Learning Outcomes: Upon completion of PHYS 202 a student will understand the basic laws and concepts of physics in the following areas and will be able to apply them in problems relating to physical situations: electricity, magnetism, optics and modern physics.

Instructor: Lewis Ford  Web page: faculty.physics.tamu.edu/ford  email: ford@physics.tamu.edu
Office: MPH 315  Office Hours: M noon - 1 p.m., T 11 a.m.- noon, W 1-2 p.m.  Office phone: 458-7908
Text: Physics 9th ed by Young with Mastering Physics Volume 2; PHYS 202 Lab Manual
Optional: Student Solutions Manual, Student Study Guide

Mastering Physics Course ID: MPFORD39219
There are tutorial problems assigned in Mastering Physics (for grade) in addition to the problems from the textbook that are listed on the syllabus.
Grading: 4 exams 60%; Final (comprehensive) 20%; Lab 7%; Recitation 5%; Homework (Mastering Phys) 8%
You must achieve 70% or better in the laboratory in order to pass the course.
If your grade on the Final Exam is higher than your lowest grade on one of the four exams during the semester, that lowest grade will be replaced by its average with the Final in computing the course grade.
April 2 is the last day to Q-drop. Final Exam is Tuesday, May 7, 8:00-10:00 a.m.

Syllabus: (MC denotes multiple-choice problems)

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<th>Topic</th>
<th>Sections in Text</th>
<th>Homework problems</th>
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<td>26: 3</td>
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<tr>
<td>Mar.29</td>
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<td>Apr. 1</td>
<td>diffraction</td>
<td>26: 4-9</td>
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<tr>
<td>Apr. 3</td>
<td>examples; review</td>
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<tr>
<td>Apr. 5</td>
<td><strong>Exam 3 Chs 23-26</strong></td>
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<tr>
<td>Apr. 8</td>
<td>photoelectric effect</td>
<td>28: 1</td>
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<tr>
<td>Apr.10</td>
<td>spectra; Bohr model</td>
<td>28: 2-4</td>
<td>28: 3,6,9,11,19,21,24,26,27,29,36,38</td>
<td></td>
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<tr>
<td>Apr.12</td>
<td>wave nature of particles</td>
<td>28: 5-8</td>
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<tr>
<td>Apr.15</td>
<td>atomic structure</td>
<td>29: 1-2</td>
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<tr>
<td>Apr.17</td>
<td>nuclei</td>
<td>30: 1-2</td>
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<tr>
<td>Apr.19</td>
<td>radioactivity</td>
<td>30: 3-4</td>
<td></td>
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<tr>
<td>Apr.22</td>
<td>nuclear reactions</td>
<td>30: 5-7</td>
<td></td>
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<tr>
<td>Apr.24</td>
<td>examples; review</td>
<td></td>
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<tr>
<td>Apr.26</td>
<td><strong>Exam 4 Chs 28-30</strong></td>
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<tr>
<td>Apr.29</td>
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<td>Apr.30</td>
<td>review</td>
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</tbody>
</table>

**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 the Department of Student Life, Services for Students with Disabilities, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

**Academic Integrity Statement:** "An Aggie does not lie, cheat, or steal or tolerate those who do." The Honor Council Rules and Procedures may be found on the web at http://www.tamu.edu/aggiehonor.
Texas A&M University

Core Curriculum Cover Sheet
Initial Request for a course to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Physics and Astronomy

2. Course prefix and number: PHYS 208

3. Texas Common Course Number: PHYS 2426

4. Complete course title: Electricity and Optics

5. Semester credit hours: 4

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? Fall, Spring, and Summer semesters

9. Number of class sections per semester: Fall 25, Spring 37, Summer 5

10. Number of students per semester: Fall 700, Spring 900, Summer 104

11. Historic annual enrollment for the last three years:
   - 2011: 1572
   - 2012: 1522
   - 2013: 1407

   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.

13. Submitted by: Jairo Sinova
    Course Instructor

    Approvals:

    14. Department Head

    15. College Dean/Designee

    Date 3/1/2013

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 2014 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?

PHYS 208 (4 credits): ELECTRICITY
This course introduces the fundamental laws governing electricity and magnetism of objects, electric circuits and its functional principles. It is the second course in physics that follows the PHYS 218 Mechanics course for science and engineer majors. The students are taught the basic principles governing electricity and how these principles where first observed and developed by using the scientific methodology. It couples directly to current technology and its basics, particularly when related to basic circuit analysis. It requires a direct engagement by the student in order to learn to connect the theoretical concepts and tools with their own experience and with experimental laboratory exercises that reinforce the scientific method. The students learn how to evaluate the forces generated by charges, how to model them mathematically and how they are related to basic electric circuits, electric motors, and other electro-magnetic based devices. Students taking this course learn the key arguments behind the scientific method and how to analyze and interpret what is being observed.

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):

This Core Objective is the primary one of the course. The students are continuously challenged to connect basic physical principles to predict new phenomena and to correctly model the behavior of mechanical systems. They learn how to synthesize a complex problem to its bare essentials that help them predict specific behavior and to critically assess the limitations of their predictions, e.g. induced magnetic fields by currents. The course incorporates active engagement through the use of i-Clickers that will challenge their conceptual understanding at each step of the way. The students watch a pre-lecture before the class room time and the bulk of the class time is spent challenging them to think critically on how the key physical principles are exploited to analyze different situations, predict phenomena, and create simple models to complex scenarios. This conceptual driven questions (i-Clickers) are then reinforced by context-rich problems in which a real life device related to basic science and engineering has to be analyzed, modeled based on sound scientific principles and appropriate assumptions.

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

The students take a laboratory component to the course. In this laboratory exercise they will perform experiments to assess and solidify their understanding of electricity in different materials and basic circuit design.
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

They will compose scientific reports on their findings, learning how to defend their work in a scientific way. Oral communication between lab partners is an essential part of taking data, analyzing data and preparing a report. The first hour of the laboratory period is dedicated to recitation, where concepts presented in lecture and homework problems that apply these concepts are discussed among students. And, there is in-class discussion in the lecture portion of the course. Visual communication skills are developed in the course through the construction and interpretation of graphical presentations of data. Students are taught that constructing diagrams and sketches is an important component of problem solving. Written communication is developed by teaching students to present their solutions to problems in a clear and logical fashion. This is tested on exams. It is this scientific way of communicating that the students will take with them as a life-long skill.

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

As a part of the laboratory and homework exercises, the students will be asked to test mechanics physics problems that are context rich. This means that they will be given a set of data and they will have to use the physical principles that they have learned in the class to analyze this data, predict subsequent behavior, and make accurate statements regarding error propagation and possible margin of error of their predictions.

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

Similarly as in the previous PHYS 218 course, the students, throughout the lectures, will be periodically be asked pair-discuss-and-debate questions in which peer-instruction will be shown to produce better results than single student responses. As an example, during the pre-lectures that the students have to view on-line before the lecture the students are asked one or two concept questions and they have to write their logical reasoning for their answer. The instructor, at the beginning of the lecture, gives again the question with a set of multiple choices showing some of the best reasoned answers (some correct and some incorrect) and the students are asked to pair up, debate, and decide (through their i-Clickers) on the correct one by teaming with their neighbors. The result is always a better class average and as a result they learn the value of team learning and peer instruction, a necessary life-long learning skill.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
PHYSICS 208: Electricity and Magnetism (Spring 2013)

Co/Pre requisites
You should have taken PHYS 218, MATH 151 and currently be enrolled in MATH 152 (or have taken it). You are expected to have a working knowledge of plane and solid geometry, trigonometry, algebra, vectors, differentiation and integration.

Instructor
Dr. John C. Harty
Office: Mitchell Institute (MIST), Room 320
Contact: (tel.) 845-1411; (e-mail) hardy@comp.tamu.edu
Office hours: Mon. 2-4 & Tues. 2-4, or by appointment

Web page
http://cyclotron.tamu.edu/jch

Textbooks
“University Physics,” 13th ed. by Hugh Young and Roger Freedman (Volume 2)

Rec. & Lab
Recitation meets in 337 Mitchell Physics Building (MPHY) for one hour, and is followed every second week by a two-hour Laboratory session. If you have taken the course before and received 80% or more on the lab part, speak to me immediately. With my permission you will not have to repeat the lab; however, you must still attend Recitation and take the weekly quizzes. The lab schedule is handed out separately. (Note, no recitations or labs meet in the first week.)

Quizzes/ HW
Homework assignments, recitations and quizzes are for your benefit so that you can practice problem solving techniques: (a) Weekly homework assignments appear on the class schedule. You are expected to do all the problems listed there and I recommend that you do them first on paper. To receive credit, though, you must also submit them via the “MasteringPhysics” web site by the end of the following week. Instructions for using “MasteringPhysics” appear on a separate page. (b) There will be short computer assignments due after each class that will be tutorial in style and based on the material given in that class. These are optional but will be worth a bonus of up to 5% on your final mark! (c) Recitations are problem-solving sessions, during which the recitation instructor will work problems and answer questions originating from you. (d) During the semester, at least 10 quizzes will be given in recitation. Each quiz will test your ability to work one of the assigned homework problems or a similar problem from the text.

Exams
There will be three midterm exams and one final exam: (a) Each midterm exam will be 50 minutes long and the final exam will be 2 hours long. These exams will consist of problems taken from the homework or from examples worked in class (with different numbers). For each problem, the entire solution will be graded and partial credit given if merited. Your work must show the steps toward the solution; the answer alone is not sufficient. (b) You will be supplied with a formula sheet with each exam. To assist in your preparation, a copy of this sheet will be posted on the class web page the week before each exam. (c) You will need to bring a calculator to the exams. However, this must not be a programmable type calculator with large memory unless you can demonstrate that the memory is clear before beginning the exam. (d) If you miss an exam due to an authorized excuse as outlined in the University Regulations, you must contact me no later than the next class meeting following the missed exam to arrange for a makeup exam. This exam will be administered outside normal class time within 7-10 days following the missed exam. It may be a course-wide exam and could include problems not taken from the assigned homework or class examples. Note that very few conditions qualify as an authorized excuse, so avoid missing an exam at all costs. (e) You must bring your student ID to you all exams for identification purposes.

Exam Grade
Midterm exams will each receive a numerical mark (not “curved”). The class will also be told approximate grade boundaries for each exam. By comparing your mark to these boundaries, you can get an indication of the grade you might expect in the course if you keep achieving at the same level. However these approximate grade boundaries are not necessarily the same as the boundaries that will be used for the final course grade. Note that in no case will these boundaries result in a lower letter grade than the standard 90-100% A, 80-89% B, 70-79% C, 60-69% D and <60% F.

Course Grade
The total course grade is derived from a total of 750 points distributed as follows:

<table>
<thead>
<tr>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Midterm Exams</td>
</tr>
<tr>
<td>Final Exam</td>
</tr>
<tr>
<td>Recitation quizzes</td>
</tr>
<tr>
<td>Laboratory</td>
</tr>
<tr>
<td>Homework</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

NOTE: If your final exam mark is higher than the average of your three mid-term exams, it will count for 300 points (out of 750) and the mid-term average will count for 200. If the average of mid-terms is higher, then it will count for 300 and the final will be worth 200. If earned, the 5% bonus will be added onto the result obtained from the table. You must pass the lecture part of the course (3 mid-term exams plus the final) and the laboratory part separately in order to pass the whole course. Completion of all laboratory experiments is required.
## Class Schedule

<table>
<thead>
<tr>
<th>Week of</th>
<th>Chapters</th>
<th>Topics/Homework Assignment/Help Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 4</td>
<td>Page 24 (1-4)</td>
<td>Capacitance and Dielectrics 24.3, 8, 11, 14, 17, 28, 34, 42, 47, 48, 52, 57, 60, 61, 65, 66, 74, 77.</td>
</tr>
<tr>
<td>Feb. 11</td>
<td>Exam 1 (Chap. 21-23) – Wed. in class 25 (1-5)</td>
<td>Help session, Sunday, Feb. 16, 7-9pm</td>
</tr>
<tr>
<td>Mar. 4</td>
<td>Exam 2 (Chap. 24-26) – Wed. in class 28 (1-7)</td>
<td>Magnetic Fields and Magnetic Forces 27.1, 4, 8, 14, 22, 31, 39, 41, 46, 61, 69, 72, 74, 77, 83, 89.</td>
</tr>
<tr>
<td>Mar. 11-15</td>
<td></td>
<td>Sources of Magnetic Field 28.1, 8, 13, 28, 34, 37, 42, 44, 45, 53, 60, 61, 62, 67, 75, 84.</td>
</tr>
<tr>
<td>Mar. 18</td>
<td>Page 29 (1-7)</td>
<td>Spring Break</td>
</tr>
<tr>
<td>Apr. 8</td>
<td>Exam 3 (Chap. 27-30) – Wed. in class 33 (1-3, 5, 7)</td>
<td>Electromagnetic Waves 32.1, 4, 8, 11, 14, 18, 23, 26, 43, 48, 49, 54, 57.</td>
</tr>
<tr>
<td>Apr. 15</td>
<td>Page 34 (1-4, 6)</td>
<td>Help session, Sunday, Apr. 7, 7-9pm The Nature and Propagation of Light 33.3, 7, 12, 19, 22, 31, 34, 36, 42, 43, 48, 52, 59, 60, 63.</td>
</tr>
<tr>
<td>Apr. 22</td>
<td>Page 35 (1, 2, 4, 5)</td>
<td>Geometrical Optics and Optical Instruments 34.2, 7, 8, 19, 20, 28, 36, 37, 53, 74, 76, 81, 113, 118.</td>
</tr>
<tr>
<td>Apr. 29 (Mon.) Apr. 30 (reread Fri.)</td>
<td></td>
<td>Interference 35.1, 6, 11, 16, 18, 28, 30, 46, 47, 54.</td>
</tr>
<tr>
<td>May 7 (Tues.) May 8 (Wed.)</td>
<td></td>
<td>Interference, Help session Final Exams (Chap. 21-30, 32-35)</td>
</tr>
</tbody>
</table>

### ADA Note

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### Honor Code

"An Aggie does not lie, cheat, or steal or tolerate those who do." All work for this course will be governed by the the Aggie Honor Code. To familiarize yourself with these rules they can be found on the web at: http://www.tamu.edu/aggiehonor.
Texas A&M University
Core Curriculum Cover Sheet
Initial Request for a course to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Physics and Astronomy

2. Course prefix and number: PHYS 218

3. Texas Common Course Number: PHYS 2425

4. Complete course title: Mechanics

5. Semester credit hours: 4

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
   [Current core - Yes]

7. This course should also be considered for International and Cultural Diversity (ICD) designation:
   □ Yes  □ No

8. How frequently will the class be offered? Fall, Spring, and Summer semesters

9. Number of class sections per semester: 57, 30, 3

10. Number of students per semester: 1596, 709

11. Historic annual enrollment for the last three years: 2381, 2403, 2390

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.


   Course Instructor

   Approvals: 3/1/2013

14. Department Head

   Date 3/5/13

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 2014 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?

PHYS 218 (4 credits): MECHANICS
This course introduces the fundamental laws governing the motion and dynamics of objects. It serves as a first basis for science and engineer majors to understand the physical principles governing the dynamics and equilibrium properties of objects due to external and internal forces. The students are taught how these principles where first observed and developed by using the scientific method and how they have been used in all known scientific disciplines. It requires of the students a direct engagement in connecting the theoretical concepts with their own experience and with experimental laboratory exercises that reinforce the scientific method. The students learn how to predict trajectories of objects, how to describe their motion mathematically, what are the physical principles that govern the dynamics and mechanics of objects, and how to apply to real world situations in engineering and other scientific disciplines. Students taking the course learn the key arguments behind the scientific method and how to analyze and interpret what is being observed.

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 o’ 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):

This Core Objective is the primary one of the course. The students are continuously challenged to connect basic physical principles to predict new phenomena and to correctly model the behavior of mechanical systems. They learn how to synthesize a complex problem to its bare essentials that help them predict specific behavior and to critically assess the limitations of their predictions, e.g. motion ignoring friction. The course incorporates active engagement through the use of i-Clickers that will challenge their conceptual understanding at each step of the way. The students watch a pre-lecture before the class room time and the bulk of the class time is spent challenging them to think critically on how the key physical principles are exploited to analyze different situations, predict phenomena, and create simple models to complex scenarios. This conceptual driven questions (i-Clickers) are then reinforced by context-rich problems in which a real life situation has to be analyzed, model based on sound scientific principles and appropriate assumptions, and a self-assessment of their answers must be followed.

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

The students take a laboratory component to the course. In this laboratory exercise they will perform experiments to assess and solidify their understanding of mechanics and they will compose scientific reports on
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

their findings, learning how to defend their work in a scientific way. Oral communication between lab partners is an essential part of taking data, analyzing the data and preparing a report. The first hour of the laboratory period is dedicated to recitation, where concepts presented in lecture and homework problems that apply these concepts are discussed among the students. And, there is in-class discussion in the lecture portion of the course. Visual communication skills are developed in the course through the construction and interpretation of graphical presentations of data. Students are taught that constructing diagrams and sketches is an important component of problem solving. Written communication is developed by teaching students to present their solutions to problems in a clear and logical fashion. This is tested on exams. It is this scientific way of communicating that the students will take with them as a life-long skill.

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

As a part of the laboratory and homework exercises, the students will be asked to test mechanics physics problems that are context rich. This means that they will be given a set of data and they will have to use the physical principles that they have learned in the class to analyze this data, predict subsequent behavior, and make accurate statements regarding error propagation and possible margin of error of their predictions.

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 students, throughout the lectures, will be periodically be asked pair-discuss-and-debate questions in which peer-instruction will be shown to produce better results than single student responses. As an example, during the pre-lectures that the students have to view on-line before the lecture the students are asked one or two concept questions and they have to write their logical reasoning for their answer. The instructor, at the beginning of the lecture, gives again the question with a set of multiple choices showing some of the best reasoned answers (some correct and some incorrect) and the students are asked to pair up, debate, and decide (through their i-Clickers) on the correct one by teaming with their neighbors. The result is always a better class average and as a result they learn the value of team learning and peer instruction, a necessary life-long learning skill.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
Physics 218: Mechanics

<table>
<thead>
<tr>
<th><strong>Professor</strong></th>
<th>Jairo Sinova</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Email</strong></td>
<td><a href="mailto:Sinova@physics.tamu.edu">Sinova@physics.tamu.edu</a></td>
</tr>
<tr>
<td><strong>Phone:</strong></td>
<td>979-845-4179</td>
</tr>
<tr>
<td><strong>Office</strong></td>
<td>MPHY 413</td>
</tr>
<tr>
<td><strong>Lectures</strong></td>
<td>TIME AND LOCATION HERE</td>
</tr>
</tbody>
</table>

**Co-Requisites**
MATH 151. You are expected to have a working knowledge of plane geometry, trigonometry, and algebra. As the semester progresses you will also be expected to have a working knowledge of derivatives and integrals, and be proficient in the use of vectors (addition, subtraction, dot and cross products).

**Office hours**
TBA

**Primary text**
University Physics, Young and Freedman 13th edition.

**Lab info**
TBA

**Web site**
All course information will be posted at TBA

**Course Grading**
The total course grade consists of 750 points distributed as follows:

- 3 Exams 275 (75, 100, 100)
- Final Exam 200
- Laboratory 100
- Recitation Quizzes 100
- Homework/Math quizzes 75

**NOTE:** If your final exam grade is higher than your 3-exam average, then the final will count 275/750 points toward your final grade and your midterm exam average will count just 200/750.

**You must pass three parts of this course separately in order to pass the course:**
- Lectures (3 midterm exams, final exam, recitation quizzes);
- Laboratory (with a minimum score of 70%);
- Homework (with a minimum score of 70%)

**Exams**
There will be three midterm exams and one final exam.

(a) Each exam will generally consist of multiple-choice problems similar in content and difficulty to the homework. Although the questions are multiple-choice all work must be shown to get credit for the answer marked. If the answer marked does not obviously follow from the shown work, even if the answer is correct, you will get zero credit for the answer. Because it is multiple-choice format there will be no partial credit given. If you mistakenly mark the wrong answer you will get zero credit for the answer. To compensate for the lack of partial credit in this exam format, there will be a practice exam similar in difficulty and content
available in MasteringPhysics. If you complete the practice exam before its assigned deadline (no late submissions accepted), you will get extra points in the corresponding exam. The maximum extra points per exam are 6 weighted by the grade of the practice exam rounded to the nearest integer, e.g. 80% in the practice exam will give you 6 x 0.8=5 extra points. This amounts to about 1-2 multiple-choice questions.

NOTE: This exam format and extra credit option may change through the semester at the discretion of the instructor.

(b) The exams are held in the evening (see Schedule for times and location)

(c) Formula sheets will be provided for each exam and the final.

(d) If you miss an exam due to an **authorized excused absence** as outlined in the University Regulations, then you should attempt to contact me prior to the exam, but no later than two working days following the missed exam to arrange for a makeup exam. There may be a **single course-wide makeup exam** for those missing an exam. This makeup exam will be written by a committee of Physics 218 lecturers and administered outside normal class time within 7-10 class days following the missed exam. Note: Very few conditions qualify as an authorized excused absence, so avoid missing an exam at all costs.

(e) You **must** bring your student ID with you to all exams for identification purposes, a pen and a pocket calculator capable of evaluating trigonometric functions (sin, cos, tan), exponentials and logarithms; these will not be supplied. Any hand-held calculator is acceptable.

### Homework

- MasteringPhysics is used to submit the homework assignments that are due on a weekly basis. The Course ID is MPSINOVASPRING2011, and you are reminded not to enter your TAMU ID as the Student ID.
- Each weekly assignment (aside from the 1st) is due the following Sunday at 11:00 pm as outlined in the course schedule below; late submissions are accepted, however full credit will not be given. The penalty is -10% per day past the deadline.
- Each incorrect answer to a problem reduces your credit for that problem by 3%. For multiple-choice problems, incorrect answers are reduced by 100%/(# of options−1) (e.g. if there are four options, you lose 33.3% per wrong guess). More details on MP grading can be found on its website.
- There is an introductory ‘assignment’ about using MasteringPhysics, which is optional (not counted for grade).

### Labs

If you miss a regularly scheduled laboratory for valid reasons, it is your responsibility to inform your TA immediately and promptly make suitable arrangements. Any missed laboratory that is not remedied will count as a zero towards your final laboratory grade.

Even though the lab work worth 13.33% of your final grade, you **MUST** achieve a 70% or better grade in the laboratory to pass the course. **Note that if you miss two labs without an excuse and do not make them up then you will have failed the course.**

If you are repeating PHYS 218 and have an 80% or better in the lab from
a previous semester, you do not have to redo the lab part of the course (but you may if you want to improve the lab grade). However, you must contact the Physics Front Office immediately in order to transfer your grade. Note that you must still attend the recitation this semester.

<table>
<thead>
<tr>
<th>ADA</th>
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<tbody>
<tr>
<td>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 the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.</td>
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<tr>
<th>Aggie Honor Code</th>
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<tr>
<td>As a student at Texas A&amp;M University, you are bound by the Aggie Honor Code: “An Aggie does not lie, cheat, or steal or tolerate those who do.” Should you have concerns or questions about ethical conduct in your studies or become aware of unethical conduct by others, please refer to the Honor Council Rules and Procedures on the web at <a href="http://www.tamu.edu/aggiehonor">http://www.tamu.edu/aggiehonor</a>.</td>
</tr>
</tbody>
</table>
Tentative Course Schedule for Phys 218 Spring 2011 Sinova

Aug. 26 – 30  Math Primer: Trigonometry, Vectors, and Calculus Review
             Chapter 1: Units, Physical Quantities

Sept. 2-6     Chapter 2: 1-D Kinematics

Sept. 9-13    Chapter 3: Kinematics in 2- and 3-D
             Chapter 3: Relative and Circular Motion

Sept. 16-20   Chapter 4: Newton’s Laws

Sept. 23-24   Review for Exam 1
             ----- Sept. 25 (Wednesday evening) Exam 1 (Ch.1-4)

Sept. 25-27   Chapter 5: Applications of Newton’s Laws, Types of Forces, and
             Friction

Sept. 30-Oct.4 Chapter 6: Work, Kinetic Energy, Work-Energy Theorem

Oct. 7-11     Chapter 7: Conservative Forces and Potential Energy,
             Conservation of Energy

Oct. 14-18    Chapter 8: Center of Mass, Momentum, Conservation of
             Momentum, Collisions

Oct.21-22    Review for Exam 2
             ----- Oct. 23 (Wednesday evening) Exam 2 (Ch.5-8)

Oct. 23-25    Chapter 9: Rotational Kinematics and Moment of Inertia

Oct. 28-Nov.1 Chapter 10: Torque, Dynamics of Rotation,
               Conservation of Angular Momentum

Nov.4-8      Chapter 11: Statics and Elasticity

Nov. 11-13   Chapter 13: Gravitation and Kepler’s Laws, and Review for Exam 3
              (Nov. 15 is last day to Q-drop)

Nov.18 19    Review for Exam 3
             ----- Nov. 20 (Wednesday evening)) Exam 3 (Ch.9-11,13)

Nov. 20-22   Chapter 14: Simple Harmonic Motion

Nov. 25-27   Chapter 14: Pendula
             Chapter 15: Mechanical Waves
             (Nov. 28-29 is Thanksgiving Holiday)

Dec.2-3      Chapter 15: Review for Final Exam
Texas A&M University

Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name): Ecosystem Science and Mgmt, Wildlife and Fisheries Science

2. Course prefix and number: RENR 205

3. Texas Common Course Number: none


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
   - Current Core - Yes

7. This course should also be considered for International and Cultural Diversity (ICD) designation:
   - Yes
   - No

8. How frequently will the class be offered? Fall and Spring

9. Number of class sections per semester: 2

10. Number of students per semester: each section up to 250, total 500

11. Historic annual enrollment for the last three years: 2010 - 675 2011 - 737 2012 - 631

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. Representing from department submitting request should be in attendance when considered by the Core Curriculum Council.

12. Submitted by:
   - Course Instructor
   - Department Head
   - College Dean/Designee

13. Date
   - 2/1/13
   - 1/31/13
   - 2/16/2013

14. 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 2014 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.

How does the proposed course specifically address the Foundational Component Area definition above?

Ecology is by definition the study of interactions between organisms and their environment. Natural selection and evolution strongly influence these interactions, they are central to the concept of ecological systems, and they have direct relevance to human society by identifying solutions to contemporary environmental challenges. Emphasis is placed on science as a systematic means of acquiring information about our physical world via the scientific method. The course addresses a diverse range of natural components from individual genes to the entire Earth System. Interactions among these various hierarchies within natural systems are also emphasized.

Core Objectives

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

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

Students are routinely challenged to reevaluate origins, consequences and solutions of a broad range of environmental challenges confronting human societies. This is based in part upon recognizing that ecological principles governing all life on the planet – life cannot exist without the paramount ecological processes of energy flow, nutrients cycling and ecosystem processes of stability or resilience within ecosystems. Common and widely held ecological misconceptions are emphasized to promote critical evaluation and assessment of current ecological knowledge. Students are required to apply and strengthen their ecological knowledge outside the classroom by critically evaluating relevant readings assignments, websites, and lecture presentations as well as inside the classroom through active learning activities using clickers and think-pair-share with probing questions and cases. Students also conduct an individual ecological inquiry project and they conduct background study, develop testable hypothesis based on observations, design investigation, collect data, analyze and interpret data, develop a scientific report, conduct peer review of reports using a detailed rubric, and revise own report based on peer reviews.

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

Students are provided with numerous opportunities to interpret multiple forms of scientific information, including tabular and graphical data. Information synthesis is promoted by challenging students to identify interrelations, trade-offs, and cause-effect mechanisms among disparate processes and variables within ecological systems. There are frequent in-class discussions, both among peers and the class as a whole, on ecological concepts and applications as well as interpretation of tabular and graphical data. Students also develop a written report for their individual inquiry project (including presenting their data graphically and interpreting them), conduct peer reviews of these reports using a detailed rubric, and revise their reports in
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

response to the peer reviews.

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

The course is founded on quantitative scientific evidence and methods of inquiry, and the instructors go to great lengths to emphasize and familiarize students with scientific perspective. Various mathematical equations are evaluated as they relate to population growth, species biodiversity, population genetics, and chemical transformation associated with nutrient cycling. Students are familiarized with various scientific units and expressions, including the use of Systems International Units. For the ecological inquiry project, students analyze and interpret data they collected, draw conclusions, and discuss potential mechanisms and limitations of the findings.

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

Students are challenged to develop and exchange views and rationales to develop shared understanding for various topics through think-pair-share or peer instruction activities coupled with clicker questions. These collaborative learning and formative assessment activities facilitate peer interaction and collaboration to promote deep learning and appreciation of diverse perspectives. For the ecological inquiry project, students also conduct online group discussions and provide feedback to each other at multiple stages of the ecological inquiry process. Peer evaluations are conducted on the performance and contribution of individual group members.

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: RENR 205
Term: Fall/Spring
Meeting times and location:
Section 501: MWF 09:10 am -10:00am: ILSB 1105
Section 502: MWF 01:50 pm-02:40pm: ARCB 101

Course Description and Prerequisites

Principles of ecology using a holistic approach treating plants, animals and humans as one integrated whole; composition, structure, nutrient cycles and energetics of biotic communities; adaptations to environmental factors; biotic relationships; and problems of environmental quality and resource use.

Prerequisites: None

Learning Outcomes or Course Objectives

1. The primary objective of this course is to explore ecology, its applications, and ecological inquiry. As a result of taking this course you should be able to:

   1. explain and distinguish between basic ecological concepts related to:
      a. effects of environmental factors on organisms and adaptations of organisms to their environment
      b. structure and dynamics of populations and communities and the role of disturbances
      c. structure of ecosystems including energy flow dynamics and nutrient cycling
      d. landscape pattern and process, and their interactions
      e. characteristics of major ecosystems and factors determining their spatial distributions
   2. use ecological concepts and principles to interpret and critique current issues in environmental management and natural resource conservation
   3. explain the scientific inquiry process and conduct simple ecological inquiries

Instructor Information

Dr. Mariana Mateos
Dept. of Wildlife & Fisheries Sciences
Heep Lab. Bldg (Old Heep), Rm 320B
Telephone: 847-9462
E-mail: mmateos@tamu.edu

Dr. David D. Briske
Ecosystem Science & Management Dept.
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Email: dbriske@tamu.edu

Dr. X. Ben Wu
Dept. of Ecosystem Science & Mgmt
Animal Industries Bldg., Room 209D
Telephone: 845-7334
E-mail: xbw@tamu.edu

Dr. Kirk Q. Winemiller
Wildlife & Fisheries Sciences Dept.
Room 110-D
Old Heep Building
Telephone: 862-4020
Email: k-winemiller@tamu.edu

Office hours: Mon. 3:00-4:00 PM, Wed. 10:30-11:30 AM, or by appointment
Teaching Assistant
TBA
Dept. of Ecosystem Sciences and Mgmt/ Dept. of Wildlife & Fisheries Sciences
Contact via eLearning
Office hours: Fri. 10:30am-12:30pm, or by appointment, 103E Animal Industries Bldg. Annex

Textbook and/or Resource Material


Weekly reading needs to be completed before class and there will be a closed-book clicker quiz for the readings in each class.

Clicker
You are required to purchase an i>clicker2 remote for in-class quizzes and activities. i>clicker is a response system that allows you to respond to questions we pose during class, and you will be graded on your i>clicker2 responses. You must register your i>clicker2 remote online before Sep 5th. You must have voted in class at least one question in order to complete this registration properly. Once you have voted on a question in our class, go to http://www.iclicker.com/registration. Complete the fields with your first name, last name, student ID, and remote ID. The remote ID is the series of numbers and sometimes letters found on the bottom of the back of your i>clicker2 remote. You are responsible to make sure that your clicker is functional and with power in every class period.

Grading Policies

(≥90% A, 80-89% B, 70-79% C, 60-69% D, and <60% F)

Weekly on-line quizzes 100 points
In-class clicker questions 100 points
4 unit exams (@100 points each) 400 points
Inquiry project and peer review 100 points
Total: 700 points

Attendance Policy

“The University views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located on-line at http://student-rules.tamu.edu/rule07.”

Lecture Outline

UNIT I

Week 1 (Aug 27) Introduction to course
Part I – Introduction and Life in the Physical Environment
Chapter 1: Introduction
Chapter 2: Adaptations to the Physical Environment: Water and Nutrients

Week 2
Chapter 3: Adaptations to the Physical Environment: Light, Energy, & Heat
Chapter 4: Variation in the Environment

Week 3  Part II – Organisms
(Sep 10)  Chapter 6: Evolution and Adaptation
Chapter 7: Life Histories and Evolutionary Fitness
Chapter 8: Sex and Evolution

Week 4  Chapter 9: Family Society, and Evolution
(Sep 17) Review (Sep 19)
Exam I (Sep 21)

UNIT II

Week 5  Part III – Populations
(Sep 24) Chapter 10: The Distribution and Spatial Structure of Populations
Chapter 11: Population Growth and Regulation
Chapter 12: Temporal and Spatial Dynamics of Populations

Week 6  Chapter 13: Population Genetics
(Oct 1) Part IV – Species Interactions
Chapter 14: Species Interactions
Chapter 15: Dynamics of Consumer-Resource Interactions

Week 7  Chapter 16: Competition
(Oct 8) Chapter 5: The Biome Concept in Ecology
Review (Oct 12)

UNIT III

Week 8  Exam II (Oct 15)
(Oct 15) Part V - Communities
Chapter 18 Community Structure
Inquiry project

Week 9  Chapter 19 Ecological Succession and Community Development
(Oct 22) Online Lecture: Disturbance and Fire Ecology
Inquiry project

Week 10  Chapter 20 Biodiversity
(Oct 29) Chapter 21 History, Biogeography, and Biodiversity
Inquiry project

Week 11  Part VI – Ecosystems
(Nov 5) Chapter 22 Energy in the Ecosystem
Review (Nov 7)
Exam III (Nov 9)
Inquiry project

UNIT IV

Week 12  Chapter 23 Pathways of Elements in Ecosystems
(Nov 12) Chapter 24 Nutrient Regeneration in Terrestrial and Aquatic Ecosystems
Inquiry project
Week 13
(Nov 19)
Part VII – Ecological Applications
Chapter 25 Landscape Ecology
Inquiry project
Thanksgiving holiday – No class on Nov 23

Week 14
(Nov 26)
Chapter 26 Biodiversity, Extinction, and Conservation
Chapter 27 Economic Development and Global Ecology

Week 15
(Dec 3)
Review (Dec 3)
Reading days (Dec 5-6)

Week 16
Exam IV for Section 501 (Dec 10, 8:00-10:00am)

In-Class Clicker Quizzes and Activities
There will be two kinds of clicker questions: closed-book clicker quizzes in class over the reading assignments; and open book questions for learning activities. The purpose of the clicker quizzes is to assess your understanding of the reading material and to guide classroom activities to improve your understanding.

For each class, the total points for clicker questions will be 5, of which 2 are participation points and 3 are based on performance in the clicker quiz questions. Participating in 50% or more of the clicker questions is required to obtain participation points in each class.

At the end of the semester, the lowest 20% of the clicker grades will be discarded, and the rest will be averaged. There will be no make-ups or adjustments for clicker quizzes or participation, except for situations with university excused absences.

On-line Quizzes
Weekly online quizzes will be given in eLearning, each with about 10-15 questions based on readings, lectures and assignments during the preceding week. Each quiz can be taken twice within the allowed time period; the higher of the two scores will be used. A portion of the exam questions will come from the quiz questions. Each quiz will begin at 5:00 am on Saturday and will be available until 5:00 am on the following Saturday. At the end of the semester, the lowest grade will be dropped and others will be averaged.

Inquiry Project
An inquiry project will be conducted during the second half of the semester. Each student will conduct an individual inquiry project that involves the full process of ecological inquiry – developing research hypothesis based on observations and published knowledge on the ecological phenomena, design and conduct sampling to collect data, analyze and interpret the data to test the hypothesis, writing a scientific report based on the investigation, participate in peer review of the reports, and improve one’s report based on peer review feedback. Specific directions for the inquiry project will be provided in eLearning.

Exams
There will be 4 unit exams each consisting of 40 multiple choice questions worth 2.5 points each. Exams will be scantron graded; students must provide their own full page scantrons (NCS mp90051 or 0-101607-TAMU). For all exams, please bring your valid student ID card and a No. 2 lead pencil with an eraser. No other materials (notebooks, etc.) will be allowed in the room during exams. No personal electronic devices may be used during the exams.

Make-up Policy
A make-up exam will be given for students with a University-excused absence (http://studentrules.tamu.edu/rule07) for a unit exam. If physically able, you must register your excused absences with
course instructors within 5 days of the missed exam, quiz or assignment.

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

Academic Integrity

"An Aggie does not lie, cheat, or steal, or tolerate those who 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 the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

For additional information please visit: http://aggiehonor.tamu.edu
Texas A&M University

Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum to be considered for the Fall 2014 Core Curriculum

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

2. Course prefix and number: THAR 101

3. Texas Common Course Number: DRAM 1310

4. Complete course title: Introduction to Western Theatre and Drama

5. Semester credit hours: 3 SCH

6. This request is for consideration in the following Foundational Component Area:
   - [ ] Communication
   - [ ] Mathematics
   - [ ] Life and Physical Sciences
   - [ ] Language, Philosophy and Culture
   - [X] Creative Arts
   - [ ] American History
   - [ ] Government/Political Science
   - [ ] Social and Behavioral Sciences
   - [ ] Current Core - Y
   - [ ] Current ICD - No

7. This course should also be considered for International and Cultural Diversity (ICD) designation:
   - [X] Yes
   - [ ] No
   - Note: This was approved 4-1-13

8. How frequently will the class be offered? Fall, Spring

9. Number of class sections per semester: 2

10. Number of students per semester: 500

11. Historic annual enrollment for the last three years: 731 1357 544

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.

13. Submitted by:

   [Signature]

   Course Instructor

   Date: 2/28/2013

14. Approved by:

   [Signature]

   Department Head

   Date: 3/22/13

15. College Dean/Designee

   [Signature]

   Date: 3/28/13

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.

MFA 13

Texas A&M University

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Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

Foundational Component Area: Creative Arts

In the box below, describe how this course meets the Foundational Component Area description for Creative Arts. Courses in this category focus on appreciation and analysis of creative artifacts and works of human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.

How does the proposed course specifically address the Foundational Component Area definition above?

Students will experience live and taped theatrical productions, and gain a deeper appreciation of the process through discussions of the production elements, the social and political ramifications, and the artistic design behind the plays. Discussions, group projects and lectures cover not only Western theatrical practices, but the global traditions and contemporary innovations that influence the art form. Students synthesize their knowledge and use their imagination to create group projects together, read and discuss selections from plays and write critical essays.

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.

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

THAR 101 addresses critical thinking by requiring students to discuss and critique different theatrical practices, historic and contemporary movements in theatre, and ways in which theatre has reflected and affected society. The ability to identify production elements, differentiate between performance spaces and describe dramatic structure are building blocks for successful discussions and critiques. Evaluated by participation in obligatory discussions, the writing of a critical essay, quizzes and exams.

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

THAR 101 addresses communication with required weekly discussions. Students use their textbooks in addition to outside research to respond to the topics in both oral and written form. Three graded group project assignments require students to interpret the knowledge they have acquired in conjunction with research, to draw connections and create a written, oral and visual presentation online.

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

THAR 101 addresses teamwork by requiring students to work in smaller groups on assignments that analyze theatrical diversity, recognize and appreciate theatre as a form of personal and social communication. Group projects are evaluated based on 3 assignments throughout the semester, which require research and blogging.

Social Responsibility (to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities):
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

THAR 101 addresses both early and contemporary global theatrical movements. Students judge the merit of personal artistic expression in the face of social and political ramifications. Students attend a live theatre production and are given guidelines for audience etiquette in a social setting. Students are evaluated on their synthesis of this information via quizzes, exams, discussions and group projects.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
Department of Performance Studies

THAR 101 Introduction to Western Theatre

Request for International and Cultural Diversity (ICD) Designation

Note: This document is an addendum to the proposal already sent forward. It didn’t make it to the CCC in time to be included on the February agenda, but it left the department before the CCC requested (in the February meeting) that ICD proposals be accompanied by an additional statement.

Introduction to Western Theatre examines every element of creating theatre, from technological aspects to social ramifications. Students are given an overview of historic and contemporary movements in theatre, as well as ways in which theatre has reflected and affected society. Western theatre has affected and been affected by global theatrical movements; in addition to spending two weeks of the semester focusing on global traditions, every topic is compared and contrasted to other diverse traditions or practices and is related to contemporary and local ones.

The study of modern theatre during the last 50 years challenges the traditional definition of theatre that is outlined earlier in the course. Students gain the foundation to better appreciate post-modern performances and the deconstruction of classical work. Modern theatre also becomes a tool for understanding how historical works can inform and affect modern life. This is enhanced by students seeing live productions of both recent and historic works, all realized with modern techniques and juxtaposed with modern life. The works of the past are how cultures identify and experience their cultural heritage today.

Approvals:

Claudia Miller 8/20/13
Department Head

College Dean/Designee 3/6/13

Date

Date
Course Description
Survey of the styles and genres of dramatic literature, theatrical production and tasks of the actor, director and designer. Examination of the diverse connections between society and theatre arts, locally and globally.

The course includes in-class discussions and quizzes, as well as lectures, and attendance is mandatory. Students will utilize “Poll Everywhere” for text or web-based feedback. This course also requires attending one play, reading from the textbook and watching media recordings outside of class. Students will be broken into groups to work on a project throughout the semester. There is no prerequisite for this course.

Learning Outcomes
Upon completion of this course students will be able to:

- Identify the elements involved in creating a theatrical production – playwrighting, producing, directing, designing, acting – and accurately describe their responsibilities.
- Differentiate between different types of performance and performance spaces, as well as the structure of plays and different dramatic forms.

The tools for these critical thinking skills (understanding and analyzing) include; attending lectures, textbook reading and media viewing.

- Discuss and critique different theatrical elements in theory and in practice, historic and contemporary movements in theatre, as well as articulate ways in which theatre has reflected and affected society.

The tools for these advanced critical thinking skills (evaluating and communication) include; participating in class discussions, writing a critique in essay form, taking quizzes and exams.

- Work with a group of peers in order to analyze theatrical diversity and theatre as a window into the conscience of a specific society.
- Recognize and appreciate theatre as a form of personal, often controversial, expression; and judge the merit of personal expression in comparison with its possible social and political ramifications.

The tools for teamwork and practicing personal responsibility include; participating in class discussions and group projects

- Experience theatre as a collaborative means of both global and communal expression by attending a live theatre production over the course of the semester, and following guidelines for audience etiquette.

Attendance of a live theatre performance expands social and personal responsibility
Course Requirements  
(detailed in paragraphs below)
- Online access to ELEARNING [http://elearning.tamu.edu/](http://elearning.tamu.edu/)
- Register with “POLL EVERYWHERE” (to be discussed first week of class)
- In-class use of text-enabled cell phones, tablets, or laptop computers with Poll Everywhere for attendance, responses and quizzes
- Assigned READINGS from the textbook. There may be additional handouts.
- Viewing of MEDIA assignments outside of class via [https://mediamatrix.tamu.edu/](https://mediamatrix.tamu.edu/)
  (to be discussed first week of class)
- In-class DISCUSSIONS over the textbook reading and media viewed
- In-class and online QUIZZES over the textbook reading and media viewed
- Attendance of a LIVE THEATRE PRODUCTION
- 450-word ESSAY based on this production (to be uploaded to elearning)
- 3 EXAMS
- 1 GROUP PROJECT

Elearning
TAMU’s elearning web page will be discussed during the first day of class.
Check elearning OFTEN for due dates, quizzes, changes or to prepare for class.
On rare occasions, requirements, policies, and schedules are subject to change.
Students will be notified of changes through elearning announcements.

Poll Everywhere
During the first class there will be a demonstration and training for this tool (which takes the place of clickers.) Poll Everywhere is an audience feedback system that utilizes text messages or web-based responses to provide input from participants. Students can use text-enabled cell phones, tablets, or laptop computers to answer multiple-choice questions or to provide narrative comments. The web-based program requires no software downloads.

Textbook Reading/Viewing Media
Outside of class, students will be required to read selections from the textbook and watch assigned media to prepare for in-class discussions and quizzes over the material.

Discussions
Discussion questions listed in the syllabus schedule are associated with reading from the textbook and media viewed. I will call on students to discuss these questions. **If you are absent or unprepared, you will be required to write 300 words over the material and submit online.** There is no point value for these papers, however you cannot take the next exam if you have not submitted discussion papers owed.

Quizzes
There are 3 ONLINE quizzes. TWO films are covered by each quiz. The quizzes include 20 questions, (10 questions per film), worth 2 points each.
There are 10 IN-CLASS quizzes covering course materials and media, worth 20 points each.
LIVE Theatre Production and Essay
A list of TAMU (and non-TAMU) productions will be posted on elearning.
Students are required to write a 450-word essay about a live theatrical production attended. The essay requirements will be discussed in class and will be posted on elearning. Ticket stub and program must be turned in.

Feel free to join the “Texas A&M Department of Performance Studies” Facebook group – it’s an easy way to access information on ALL the events the department has to offer and how to get involved.

Groups/Group Project
At the beginning of the semester, students will be broken up into groups of 10-12. Throughout the semester there will be steps the groups must complete to create a “final project.” These steps will include researching and answering monthly questions and blogging on our elearning page. The details of this project will be discussed in class.

Exams
There will be a review beforehand, and study guides will be posted on elearning. Exams will cover material from discussions, in-class quizzes and from the textbook.
Exams will start promptly. Late entry is allowed until the first student leaves the classroom. After the first student leaves, late entry will not be allowed.

Attendance
Students are expected to attend every class. Attendance will be tracked via Poll Everywhere. 1 point will be subtracted from the Bonus points for every unexcused absence.
For more information about the University policy on excused absences, see the Student Rules at http://student-rules.tamu.edu/rule07

Grading
3 IN-CLASS EXAMS: 75 questions, 2 points per question, 150 points per exam.
3 ONLINE QUIZZES: 20 questions, 2 points each, 40 points per quiz
10 IN-CLASS QUIZZES: 20 points each
1 PERFORMANCE ESSAY: 100 points
1 GROUP PROJECT: 100 points

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<td>Exams</td>
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<tr>
<td>Quizzes</td>
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<td>Group Project</td>
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<tr>
<td>Bonus points</td>
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<tr>
<td>TOTAL POSSIBLE POINTS</td>
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Grading Scale:
A=900-1000
B=800-899
C=700-799
D=600-699
F=below 599
Schedule
"Textbook reading" = come to class having already read the pages indicated
"Discussion" = be prepared to discuss the topics/questions indicated when called upon
“★” = starting a new chapter “▲” = group project assignment

WEEK ONE Jan 14-18
MONDAY
- Introduction to Course: review syllabus and address procedures and questions
WEDNESDAY
- Demonstration of Poll Everywhere – bring your text-enabled cell phones, tablets, or laptop computers
FRIDAY
- Group divisions and discussion of group projects
- In-class quiz on the first three pages of the syllabus

WEEK TWO Jan 21-25
MONDAY - HOLIDAY
WEDNESDAY
★ Textbook reading: Chapter 1, “Theatre: The Art Form” pp. 2-21
- Discussion: “Thinking About Theatre” – both topics on page 20
FRIDAY
- Lecture and in-class quiz

WEEK THREE Jan 28-Feb 1
MONDAY
- View media
- Discussion: Be prepared to apply the “criteria for criticism” on pp. 40-41 to the media viewed
WEDNESDAY
★ Textbook reading: Chapter 3, “Creating the Dramatic Script” pp. 44-73
- Lecture and in-class quiz
FRIDAY
- Discussion: “Who’s Afraid of Virginia Woolf?” Which characters are in opposition to each other? How do shifts in power and control reveal the personalities of the character?
▲ GROUP PROJECT ASSIGNMENT DUE FEB 1 (see elearning folder)

WEEK FOUR Feb 4-8
MONDAY
- Lecture and media viewing
WEDNESDAY
★ Textbook reading: Chapter 4, “Theatrical Genres” pp.74-93
- Lecture and in-class quiz
FRIDAY
- Discussion: “A Doll’s House” What do you think it is about this drama that allows people in the 21st century to identify strongly with the characters and the situations?
Re-write “Three Little Pigs” as a heroic drama OR melodrama OR theatre of the absurd.
WEEK FIVE  Feb 11-15
MONDAY  
• Review for Exam 1, covering Chapters 1-4
WEDNESDAY  
• EXAM 1 (which will include extra-credit questions over “Noises Off”)  
• Online Quiz 1 closes
FRIDAY  
• Media viewing and acting warm-up exercises

WEEK SIX  Feb 18-22
MONDAY  
★ Textbook reading: Chapter 5, “Acting for the Stage” pp. 94-117  
• Lecture and in-class quiz
WEDNESDAY  
• Discussion: Research the idea of “viewpoints” as described in the writing by and about Anne Bogart. How do her ideas differ from Stanislavski’s? Would an actor trained in one tradition be more suited for certain types of roles than others?
FRIDAY  
★ Textbook reading: Chapter 6, “The Director/Producer” pp. 118-135  
• Lecture

WEEK SEVEN  Feb 25 – Mar 1
MONDAY  
• Lecture and in-class quiz
WEDNESDAY  
★ Textbook reading: Chapter 7, “Theatre Spaces” pp. 136-155  
• “Guess That Stage” game show!
FRIDAY  
★ Textbook reading: Chapter 8, “Scenery/Costumes” pp. 156-187  
• Lecture  
▲ GROUP PROJECT ASSIGNMENT DUE MAR 1 (see elearning folder)

WEEK EIGHT  Mar 4-8
★ Textbook reading: Chapter 9, “Lighting/Sound” pp. 188-205  
• DURING THIS WEEK THERE WILL BE ONE IN-CLASS QUIZ AND WE WILL MEET IN THE THEATRE. DETAILS TO FOLLOW

SPRING BREAK  Mar 11-15

WEEK NINE  Mar 18-22
MONDAY  
• Review for Exam 2, covering Chapters 5-9
WEDNESDAY  
• EXAM 2 (which will include extra-credit questions over “The Importance of Being Earnest”)  
• Online Quiz 2 closes at midnight
FRIDAY  
• Media viewing
WEEK TEN Mar 25-29
MONDAY
★ Textbook reading: Chapter 10, “Early Theatres” pp. 206-237
  • Discussion: Compare last Friday’s media viewing and “The Mysteries” to Classical Greek Old Comedy
WEDNESDAY
  • Lecture and in-class quiz
FRIDAY – NO CLASS, READING DAY

WEEK ELEVEN Apr 1-5
MONDAY
★ Textbook reading: Chapter 11, “Early Asian Theatre” pp. 238-253
  • Lecture and media viewing
△ GROUP PROJECT ASSIGNMENT DUE APR 1 (see elearning folder)
WEDNESDAY
  • Discussion: Some of the Asian theatres evolved into entertainment for the elite members of their societies. Name at least three examples of entertainment today that appeal primarily to a specific group of individuals.
FRIDAY
★ Textbook reading: Chapter 12, “Renaissance Theatre” pp. 264-297
  • Lecture and media viewing

WEEK TWELVE Apr 8-12
MONDAY
  • In-class quiz
  • Discussion: What elements of commedia dell’arte are found in the filmed production of “The Taming of the Shrew”?
WEDNESDAY
★ Textbook reading: Chapter 13, “Restoration/Romanticism” pp. 298-325
  • Lecture and media viewing
FRIDAY
  • Discussion: Why was the emergence of the director in the eighteenth century so significant? Explain why a film or television show you have seen recently might be categorized as melodrama.

WEEK THIRTEEN Apr 15-19
MONDAY
  • In-class quiz
WEDNESDAY
  • Lecture and media viewing
FRIDAY
  • Discussion: The director has been particularly influential in productions of the nonrealistic style (Craig, Meyerhold, Brecht, etc.). Discuss why the director might be more important in a nonrealistic production than in a realistic production.
WEEK FOURTEEN Apr 22-26
MONDAY
• Lecture and in-class quiz
WEDNESDAY
• Discussion: Read selections from Augusto Boal’s Theatre of the Oppressed. (Will be uploaded on elearning.) How does his idea of “Invisible Theatre” fit into our discussion of the nature of theatre? What purposes does it share with theatre of the past? What is different about its techniques?
FRIDAY
• Lecture and media-viewing

REDEFINED WEEK Apr 29/30
MONDAY
• Review for Exam 3, covering Chapters 10-15
TUESDAY (Redefined)
• Review for Exam 3
• Performance Essay due online, programs and ticket stubs turned in during class

FINAL EXAM (EXAM 3)
TUESDAY, MAY 7, 10:30am-12:30pm IN CLASSROOM

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 the Disability Services, in Cain Hall Room B118, or call 845-1637. For more information, visit http://disability.tamu.edu/.

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

Cheating in this class will not be tolerated. This includes plagiarism. Violators will receive a failing grade and be referred to the Academic Honesty Committee for disciplinary action (http://aggiehonor.tamu.edu/).

A Note on Content
Theatro, historically and currently, deals with complex and controversial issues; it is often challenging and at times uncomfortable. It would therefore be impossible to offer a meaningful introduction to theatre that did not engage, at times, with potentially difficult issues including religion, gender, race, sexuality, class, violence and politics. Many of us will have different responses to the plays we read and attend, and that is an excellent thing; in our discussions, all thoughtfully and respectfully expressed viewpoints are welcome and encouraged. However, no one will be excused from reading, viewing, or discussing a play based on its content. Students who are concerned about the content of this class or their ability to complete the required work should talk to me.
Texas A&M University
Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum
to be considered for the Fall 2014 Core Curriculum

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

2. Course prefix and number: HIST 230

3. Texas Common Course Number:

4. Complete course title: American Military History, 1609-Present

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

9. Number of class sections per semester: 1

10. Number of students per semester: 140-150


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.

13. Submitted by: [Signature] Date 3/20/2013

14. Department Head: [Signature] Date 3/18/13

15. College Dean/Designee: [Signature] Date 3/20/13

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.
Foundational Component Area: American History

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

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?

This course (HIST 230) explores the main events, personalities, and technologies related to American military history from 1609-present. It explores the following themes: How has US military policy changed over time and in what ways has it remained constant? How have the US armed forces evolved and adapted in peace and war? How have Americans tried to balance their need for national security with civilian control of the military? How has the United States begun, waged, and ended its wars? How has the American public's interpretation of the 'lessons of history' influenced how the US prepares for war?

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):

This course develops the core objective of critical thinking by asking students to interpret and synthesize lecture material and a film related to the main events, personalities, and technologies related to American military history from 1609-present. Students will be asked to discuss how US military policy has changed over time and remained the same and how US armed forces have evolved and adapted in peace and war. Student learning will be evaluated through discussion, quizzes and a midterm and final exam exam.

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

This course develops the core objective of communication by asking students to interpret and discuss information provided in lecture (including visual images and maps), readings, and film. This information relates to topics such as how the American government historically has balanced a need for national security with civilian control of the armed forces and how the United States has begun, waged and concluded wars differently over time. Student learning will be evaluated through discussion, quizzes, a midterm and a final essay exam, all of which include information provided in lecture, readings, and film.

Social Responsibility (to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities):
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

This course will address social responsibility by requiring students to identify (in lectures and reading materials), interpret and synthesize information related to American involvement in civil war (like the American War of Independence and the Civil War) and external war (like the Napoleonic Wars, the Mexican American War, World War I and World War II, the Korean War and the Vietnam War). Students will be asked to reflect on the role of citizen soldiers versus professional combatants and the complicated division between homefront and battlefield. Student learning will be evaluated through discussion, quizzes, a midterm and a final essay exam, all of which include information provided in lecture, readings, and film.

Personal Responsibility (to include the ability to connect choices, actions and consequences to ethical decision-making):

This course will address personal responsibility by requiring students to identify (in lectures and reading materials) and articulate (through exams and quizzes) how the decisions made by individuals, groups and institutions led to shifts in the composition of and control of the American military and subsequent decisions for America to 'go to war.' In discussion, students will be asked to reflect on how they might apply the ethical decision making processes discussed in class to their own contemporary experiences. Student learning will be evaluated through discussion, quizzes, a midterm and a final essay exam, all of which include information provided in lecture, readings, and film.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
History 230, American Military History, 1609-Present, Fall Semester 2011

Meeting times and location:
Monday, Wednesday, Friday 1:50-2:40 PM;
Classroom: HECC 105

Instructor Information:
Professor Brian McAllister Linn
Office: 200A Glasscock Bldg Phone: 845-5172 (office) or 845-7151 (dept):
e-mail: B-linn@tamu.edu
Office Hours: 2:50-4:00 Mon and Wed and by appointment

Course Description:
This course explores the main events, personalities, and technologies related to American military history. It explores the following themes: How has US military policy changed over time and in what ways has it remained constant? How have the US armed forces evolved and adapted in peace and war? How have Americans tried to balance their need for national security with civilian control of the military? How has the United States begun, waged, and ended its wars? How has the American public's and the armed forces' interpretation of the 'lessons of history' influenced how the US prepares for war?

Core Objectives for American History Foundational Component Area

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

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

Social Responsibility (to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national and global communities)

Personal Responsibility (to include the ability to connect choices, actions and consequences to ethical decision-making)

Prerequisites:
None.

Student Learning Outcomes:
Through this course, students will be able to:

1) evaluate and synthesize primary and secondary historical writings related to American military history from 1609-present.

2) express their own ideas effectively in written and oral form.

3) identify historical and social contexts that created diversity in past American military history and in present-day human cultures.
4) apply knowledge about the human condition in the past and present American military to their personal lives and studies.

**Textbooks and required resources:**
- Joseph P. Martin, *Memoir of a Revolutionary Soldier*
- Eugene Sledge, *With the Old Breed*
- i>clicker (be sure to check that you do NOT purchase an eclicker)

**Grading Policies**

Grade Scale:
- Participation (i>clicker polls)=15 points;
- 7 quizzes (10 points each)=70 points;
- Midterm Exam=50 points.
- Final Exam=115 points.
- Total: 300 points.

**Grade Distribution** (based on points):
- A=270-300;
- B=240-269;
- C=210-239;
- D=180-209;
- F=below 180 points

Participation (via i>Clicker): A maximum of 15 points will be given for student participation via i>clicker polls. There may be more than ten polls, so students should not assume that once they have taken ten polls they have 'maxed' their participation grade. All polls must be done via i>clicker.

All students must purchase and register an i>clicker by 2 September. Students who have already purchased an i>clicker1 can use them. Students needing to purchase an i>clicker should consider the i>clicker2. i>clickers will be used for all quizzes and polls (participation points) and should be brought to every class. Students are responsible for bringing backup batteries to class. i>clicker registration: [http://www.iclicker.com/support/registeryourclicker/](http://www.iclicker.com/support/registeryourclicker/) Use your email (the one registered on Howdy) for your Student ID.

Quizzes: There will be seven quizzes. All quizzes will be multiple choice. All quizzes will be taken via i>clicker. Students should bring their i>clicker to class each day. Students who do not have an i>clicker on quiz dates will not be permitted to take the quiz in any other format. **Taking another student's exam or quiz is a violation of the Honor Code.**

Exams: Exams will be essay format and must be taken in a blue book. They will consist of short (1 page) answers based on both the reading and the lectures. At least one question will be specifically on readings from either *Memoir of a Revolutionary Soldier* or *With the Old Breed* (final exam). Answers that do not show a university-level understanding of the readings will receive no credit (i.e., you are quite free to write an answer even if you haven't read the assignment, and the instructor is equally free not to give it any credit).
Attendance Policy and Makeup Examinations: I will handle all absences and work related to them in accordance with TAMU Student Rules. Please see [http://studentrules.tamu.edu/rule7.htm](http://studentrules.tamu.edu/rule7.htm) for Texas A&M's policy on university-excused absences.

Attendance and Lecture Notes: The skill of taking detailed notes from lectures is a learning objective in this course. This means more than copying the slides, it means following the lecture's narrative, details, and argument. Students who miss lectures should visit the instructor during office hours or by appointment. The outline of each lecture is available on-line but the detailed discussion of the lecture outline is only available in the instructor's office during office hours or by appointment. The complete lecture slides will not be emailed or copied or otherwise made available to students outside the instructor's office. For syllabus and lecture outline slides: [http://www.tamu.edu/history/faculty/linn.htm](http://www.tamu.edu/history/faculty/linn.htm)

Academic Integrity:
Academic Integrity: "An Aggie does not lie, cheat, or steal, or tolerate those who do." All students are expected to be aware of the Aggie Honor Code and the Honor Council Rules and Procedures, stated at [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor).

Americans with Disabilities Act 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](http://disability.tamu.edu). It is the student's responsibility to discuss this matter with the professor.

COURSE TOPICS and READINGS
Students should complete the readings for the entire week by Monday

Week 1:
29 Aug.--Introduction to U.S. Military History. *(Common Defense, Intro. and Ch. 1, Between War, pp. 1-21)*
31 Aug.--Frontier Warfare *(Common Defense, Chs. 1-2)*
2 Sept.--War of Independence *(Common Defense, Ch. 3; Between War, pp. 21-42; Memoir of a Revolutionary Soldier)*. First poll on 2 Sept

Week 2:
5 Sept.--War of Independence *(Common Defense, Ch. 3; Between War, pp. 21-42; Memoir of a Revolutionary Soldier)*.
7 Sept.--Military and Naval Policy, 1783-1812 *(Common Defense, Ch. 4)*
9 Sept.--War of 1812 *(Common Defense, Ch. 4) Quiz 1*

Week 3:
12-14 Sept.--Naval/Military Policy *(Common Defense, Chs. 4-5) Quiz 2 on 14th*

**Week 4:**
19-23 Sept.-- Civil War (*Common Defense*, Chs. 6-7; *Between War*, pp. 107-28)

**Week 5:**
26-30 Sept.-Military and Naval Policy, 1865-1898 (*Common Defense*, Ch. 8) **Quiz 3 on 30th**

**Week 6:**
3-5 Oct.-Imperial Wars, (*Common Defense*, Ch. 9; *Between War*, pp. 155-78)
7- Oct.-Military and Naval Reform, 1898-1917 (*Common Defense*, Ch. 10)

**Week 7:**
10 Oct.-Military and Naval Reform, 1898-1917 (*Common Defense*, Ch. 10)
12-14 Oct.-World War I (*Common Defense*, Ch.II; *Between War*, pp. 179-96)

**Week 8:**
17 Oct.- Midterm Exam

**Week 9:**
26 -28 Oct.--World War II(*Common Defense*, Chs. 13-14; *Between War*, pp. 197-218 or 220-36) **Quiz #4 on 28th**

**Week 10:**
31 Oct.-4 Nov.--World War II(*Common Defense*, Chs. 13-14; *Between War*, pp. 197-218 or 220-36)

**Week 11:**
7 Nov.-Demobilization, Atomic Air Power, and Cold War (*Common Defense*, Ch. 15) **Quiz 5**

**Week 12:**
14-16 Nov.- New Look to Flexible Response (*Common Defense*, Ch. 16)
18- Nov.-Vietnam, 1960-76 (*Common Defense*, Ch. 17; *Between War*, pp. 259-80)

**Week 13:**
21 Nov.-Vietnam, 1960-76 (*Common Defense*, Ch. 17; *Between War*, pp. 259-80) **Quiz 6**
23 Nov.- Doctor Strangelove
25: No Class-Thanksgiving Break

**Week 14:**
28 Nov.-Impact of Vietnam (*Common Defense*, Chapter 18) **Quiz 7**
30 Nov.-2 Dec.-Cold War to Iraq/Afghanistan (*Common Defense all Ch. 18; Between War*, pp. 302-22)

Redefined day:
5 Dec.-Cold War to Iraq/Afghanistan (*Common Defense* all Ch. 18; *Between War*, pp. 302-22)

**Final Examination: Tuesday, 13 December 10:30-12:30**
Texas A&M University
Core Curriculum

Initial Request for a lower division course included in the current Core Curriculum
to be considered for the Fall 2014 Core Curriculum

1. This request is submitted by (department name):  Department of Agricultural Economics

2. Course prefix and number:  AGE 105

3. Texas Common Course Number:  AGRI 2317

4. Complete course title:  Introduction to Agricultural Economics

5. Semester credit hours:  3

6. This request is for consideration in the following Foundational Component Area:
   □ Communication  □ Creative Arts  □ American History
   □ Mathematics    □ Government/Political Science  □ Social and Behavioral Sciences
   □ Life and Physical Sciences  □ Language, Philosophy and Culture

7. This course should also be considered for International and Cultural Diversity (ICD) designation:
   □ Yes  □ No

8. How frequently will the class be offered?  Spring and Fall Semesters

9. Number of class sections per semester:  7 sections in Fall with one being honors and 6 in the Spring*

10. Number of students per semester:  400

11. Historic annual enrollment for the last three years:  2010-2011 801  2011-2012 721  2012-2013 827

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. Submitted by:
   Course Instructor  2/11/13

   Approvals:
   Department Head  2/11/13

   College Dean/Designee  2/14/13

For additional information regarding core curriculum, visit the Texas Higher Education Coordinating Board website at

www.thecb.state.tx.us/corecurriculum2014

3-4-13 - not appr.
4-1-13 - not appr.

See form instructions for submission/approval process.
Students have the opportunity to take AGEC 105 at two different times in both the fall and spring semester. Each time period of AGEC 105 has three sections which allows different classifications and majors to enroll in the course. The sections include a major only section; a freshman only section; and a non-major U2, U3, or U4 section. In the fall semester an honors section of AGEC 105 is also offered.
Texas A&M University

Core Curriculum

Initial Request for a Course Addition to the Fall 2014 Core Curriculum

Foundational Component Area: Social and Behavioral Sciences

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

How does the proposed course specifically address the Foundational Component Area definition above?

Economics is a social science that studies how people make decisions under conditions of scarcity – i.e., given constraints on their income, time, resources, etc. Microeconomics focuses specifically on the decisions of individuals, households, and firms. Macroeconomics, in contrast, studies aggregate consequences of these decisions as typically measured by the unemployment rate, inflation, economic growth, etc. This course introduces students to the study of micro and macroeconomics as it relates to the nation’s natural resources, food and fiber systems. The course explores the behavior of firms in determining what to produce and how to produce it. The course also examines the behavior of individuals in deciding what to purchase, how much to purchase, and finally how firms and individuals interact in the market. The course examines how government intervention can make markets either more or less efficient.

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.

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

Learning Outcomes:
Students will investigate analytical frameworks that economists use to solve problems. Students will critically analyze relevant economic questions.
Students will analyze data using graphs, mathematical tools, and economic models to vet economic outcomes.
Students will create methods applicable to the natural resources, food, and fiber sectors.
Students will synthesize contemporary economic issues using written and visual communication.

Assessment
Students’ critical thinking will be assessed with written assignments, quizzes, exams, and a comprehensive final exam.

Communication (to include effective development, interpretation and expression of ideas through written, oral and visual communication): Students enrolled in AGEC 105 communicate through assignments, discussions, review sessions, in-class projects, exams, interactions with TAs and the course instructors.

Learning Outcomes:
Students will communicate economic concepts through in-class and online discussions, graphical analysis, review sessions, written assignments, quizzes and exams. Students must interpret and create their own graphical analysis of economic concepts. Economic concepts that students will be able to describe through oral, written and visual communication include:

• Relating the behavior of firms in determining what to produce and how to produce it.
• Recognizing decision-making under conditions of scarcity.
• Recognizing the behavior of individuals under income, time, and resource constraints.
• Recognizing aggregate consequences of decisions on unemployment rates, inflation, and economic growth.
Texas A&M University
Core Curriculum
Initial Request for a Course Addition to the Fall 2014 Core Curriculum

Assessment
Students participate in discussions on e-learning and assessments developed by instructors. Students participate in review exercises and are evaluated accordingly. Voluntary review sessions are available once a week to further accommodate the large class size. Written assignments, in-class quizzes and exams will be used to assess students' ability to accurately communicate their understanding of economic concepts.

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

Learning Outcomes:
Student will demonstrate basic mathematical skills (data analysis, graphical analysis and basic calculations involving percentage changes) to analyze economic problems.
Students will use data to estimate important economic measures including own-price, cross-price and income elasticities; marginal and total utility, costs, revenues and profits; and optimal input, output, and consumption levels. Students will use economic data to draw, interpret and make forecasts on economic outcomes.

Assessment:
Students’ knowledge of economic theory and quantitative applications will be assessed through assignments, quizzes and exams.
The percentage of students responding correctly to specific questions embedded in exams will be used to assess students’ knowledge and understanding of the quantitative tools used to solve economic problems.

Social Responsibility (to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities): Students learn about the global economy starting with individual economic decision makers moving to markets and then macroeconomic issues, which play a central role in national political debates and are also at the center of world politics. The class culminates in a discussion of international trade issues. Such knowledge allows students to be better prepared for working in the global community.

Learning Objectives:
Students will apply economic principles to examine contemporary problems facing the natural resource, food and fiber sectors of our economy. Students will use simple analytical tools to explain contemporary economic policy issues in newspapers and on television news broadcasts. Students will appreciate how an understanding of economic policy issues is an important prerequisite for responsible citizenship.

Assessment:
Quality of individual contribution on topical issues discussed in class will be used to assess students’ performance. Peer review will be used to assess students’ knowledge and understanding of contemporary policy issues.

Please be aware that instructors should be prepared to submit samples/examples of student work as part of the future course recertification process.
Agricultural Economics 105
Introduction to Agricultural Economics
Spring 2013

Instructor
Dr. Jim Mjelde
Room 212 C AGLS
845-1492
c-mail j-mjelde@tamu.edu (because of the number of e-mails received to guarantee a response put AGEC 105 in the subject line)

Office Hours
Open Door Policy (usually in the office in the AM) and by Appointment

Class Web Page
http://agecon2.tamu.edu/people/faculty/mjelde-james/AGEC_105/ check this page often for class handouts, notes, etc. The course web page will be used to disseminate class material. http://e-learning.tamu.edu/ is used for distributing grades only.

Teaching Assistants
Kyle Binder  AGLS 391
Office Hours: Wednesday 1 – 4 PM
Email: kyle.binder@neo.tamu.edu
Office Hours: TBA

We expect you to come and see us, so do not hesitate.

Class Times
11:30-12:20 MWF KLCT 115 - Sections 501, 502, and 503

Weekly Help Sessions – Thursday 5:30-7:00 AGLS 115. Help sessions are generally taught by the TAs.

Course Description

Characteristics of our economic system and basic economic concepts; survey of the farm and ranch firm and its organization and management; structure and operation of the marketing system, functional and institutional aspects of agricultural finance; government farm programs.

Class Objectives

Economic and financial problems facing society today are complex. This class is designed to provide information on the characteristics of both our micro and macro economic systems and basic economic concepts with emphasis on the nation’s natural resources, food and fiber systems. The objective of this course is to provide students with an understanding of basic economic principles required to critically examine problems facing the agricultural, natural resource, and
other sectors of our economy and how individuals, households and firms make economic decisions and the impact that government intervention can have on the economy.

**Learning Outcomes:**

- Understand the analytical framework that economists use to investigate the phenomena of the world around them.
- Students are able to ask and to understand relevant economic questions.
- Use graphical analysis and basic mathematics to vet economic outcomes.
- Develop a method of economic thinking applicable to the natural resources, food, and fiber sectors.

- Relate the behavior of firms in determining what to produce and how to produce it.
- Recognize decision-making under conditions of scarcity
- Recognize the behavior of individuals under income, time, and resource constraints.
- Recognize aggregate consequences of decisions on unemployment rates, inflation, and economic growth. Use basic mathematical skills (graphical analysis and basic calculations involving percentage changes) to analyze economic problems.
- Students are able to use data to estimate important economic measures including own-price, cross-price and income elasticities, marginal, and total utility, costs, revenues, profits, optimal input, output, and consumption levels. Students are able to also use economic data to draw, interpret, and make forecasts on economic outcomes. Use economic principles to examine problems facing the natural resource, food and fiber sectors of our economy. Use simple analytical tools to explain contemporary economic policy issues in newspapers and on television news broadcasts. Appreciate how an understanding of economic policy issues is an important prerequisite for responsible citizenship.

**Course Prerequisites**

None

**Required Textbook**

Reading assignments come from the required textbook.


or

Course Structure

The course involves lectures, readings, and homework problems. Tests will cover all material presented in the classroom, readings, and the homeworks. Each test will be comprehensive, but will concentrate on the material since the last test. Three tests will be given during the semester and a regularly scheduled final. Only two of the three tests (final is not included) will count towards your final grade. Generally, if you miss a test, this will be the test that is dropped. If a make-up test is necessary, the test will be an essay exam and the student must notify the instructor within 48 hours of the regularly scheduled test date. The test schedule is posted, as such, plan your semester accordingly. The final will be comprehensive and is required of all students.

Class attendance is not required and class roll will not be taken. As a responsible adult, it is up to you to decide if the marginal benefits of class attendance are greater or less than the marginal costs (economic jargon to be discussed in class). During the semester, however, unannounced homeworks that are due at the end of the class period may be assigned and you will lose clicker points.

**e-mail**

E-mail is a great way to communicate with a large number of people. Throughout the semester I will send notices to your TAMU e-mail account. It is your responsibility to check your university e-mail account. Further, because e-mail is not secure, it is not appropriate to communicate confidential or sensitive matters including specific grades. We are more than happy to discuss grades but please do it in person. For further information, see university regulations concerning e-mail [http://student-rules.tamu.edu/rule61](http://student-rules.tamu.edu/rule61).

Course Grade and Requirements

Grades for the exams and homeworks will be posted on e-learning as soon as possible. Please check this web site [http://e-learning.tamu.edu/](http://e-learning.tamu.edu/) for your grades and total points earned in the class to date.

<table>
<thead>
<tr>
<th>Total Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two mid-term examinations</td>
</tr>
<tr>
<td>Final</td>
</tr>
<tr>
<td>Total Test points</td>
</tr>
<tr>
<td>Clicker points</td>
</tr>
<tr>
<td>Homework</td>
</tr>
<tr>
<td>Total Points</td>
</tr>
</tbody>
</table>

The total points on the homework will most likely exceed 175 points. Your homework points will be scaled to 175 points based on the percentage of the total points you receive. Final course grade will be determined as follows:
Number of Points | Final Letter Grade
---|---
540 + | A
480 - 539.9 | B
420 - 479.9 | C
360 - 419.9 | D
< 360 | F

The three class sections will be graded as one class. **DO NOT EXPECT A CURVE.**

**iclicker**

Most class periods there will be several questions answered through the iclicker system. Bring your iclicker to class everyday, failure to bring your iclicker will result in a loss of points that day, no exceptions. Also you must register your iclicker at www.iclicker.com/registration. Your iclicker should be registered before class on Friday January 20th, failure to register will result in a loss of points, again no exceptions. If you miss a class because of an excused absence, you will be allowed to make up any clicker points that you missed. To make up the points, you must (1) let us know that you will miss class **before (if possible)** the class period (per university regulations) and (2) answer the clicker questions (hard copy) before class the next class period.

The number of clicker points during the semester will most likely not equal 75. Similar to homework points, clicker points will be scaled to 75 points. However, one difference is the percentage will be based on three points less than the total available points. This allows you to miss a class (without an unexcused absence) without incurring a penalty on clicker points.

**Additional Resources**

The Federal Reserve Bank of St. Louis has seven minute or less podcasts pertaining to topics discussed in this class. They are a good resource if you are having trouble understanding a specific concept, [http://stlouisfed.org/education_resources/podcasts.cfm](http://stlouisfed.org/education_resources/podcasts.cfm). The St. Louis Fed also provides a good overview of the Federal Reserve that you should listen to when we cover macroeconomics, [http://www.stlouisfed.org/inplainenglish/intro.htm](http://www.stlouisfed.org/inplainenglish/intro.htm). You can listen to the video or read the text version.

The History Channel, [http://www.history.com/](http://www.history.com/) has a series of shows called Modern Marvels (many different topics including agriculture) and American Eats. These shows provide good background information on the changing face of agriculture. You can check the scheduling listing on the above web site for times for the programs.
**Tentative Test Schedule**

Dates are fixed, but the subject material may vary depending on coverage in class.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Topics Tentative</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 21 Martin Luther King Day – No Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exam 1</td>
<td>February 15 - Friday</td>
<td>Chapters 1-3 possibly 4</td>
</tr>
<tr>
<td>Make-up exam – 7 AM February 18 AGLS 212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring Break March 11-15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exam 2</td>
<td>March 22 - Friday</td>
<td>Chapters 4-7</td>
</tr>
<tr>
<td>Make-up exam – 7 AM March 25 AGLS 212</td>
<td></td>
<td></td>
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<tr>
<td>March 29 Reading day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exam 3</td>
<td>April 26 - Friday</td>
<td>Chapters 11-14</td>
</tr>
<tr>
<td>Make-up 7 AM April 29 AGLS 212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final - Comprehensive</td>
<td>Sections 501, 502, and 503 – Wednesday May 8 10:30-12:30</td>
<td>Chapters 8, 15 + All previous material</td>
</tr>
</tbody>
</table>

**Extra Credit**

We are providing you an opportunity to earn up to 10 extra credit points. On media matrix, [http://mediamatrix.tamu.edu/](http://mediamatrix.tamu.edu/) there are two films, supermarkets and lumberyards. To view these films, you will need to login using your netid. Viewing each film is worth up to 5 points to your overall grade. To obtain these points you must obtain from Kari before class an extra credit sheet. There is one sheet for each film, be sure to obtain a sheet for each film you wish to view. To receive credit, the sheet(s) must be correctly completed and return by April 13. We will check the sheet information against media matrix records. Remember the Aggie Code.

**NO LATE EXTRA CREDIT SHEETS WILL BE ACCEPTED** – extra credit is assigned the first day of class and can be turned in anytime by April 13.

**Excused Absences**

This class follows the university policy on absences, see [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07).

**Scholastic Dishonesty**

As commonly defined, academic dishonesty / plagiarism consists of presenting as one’s own ideas, words, writings, etc. material that belongs to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of the person. It does not matter from where the material is borrowed - a book, an article, material off the web, another student’s paper, etc. - all constitute plagiarism unless the source of the work is fully identified and credited. Identifying a paper or other material, as one’s own that has actually been written or prepared by someone else is always
a case of academic dishonesty. Quotation or borrowing certain material and including, as a small component of one's own original work, are appropriate if proper credit is given. It is important when using a phrase, a distinctive idea or concept, or a sentence from another source to credit explicitly that source either in the text, a footnote, or endnote. Plagiarism is a violation of academic and personal integrity and carries extremely serious consequences at Texas A&M University. Scholastic dishonesty (including cheating and plagiarism) will not be tolerated. The full consequences of scholastic dishonesty will be pursued consistent with University policy. If you have any questions, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty." Be especially careful with your written assignments to make certain that any and all sources are explicitly acknowledged in writing. The instructor will make clear which course assignments are collaborative exercises in which it is appropriate for team-members to work together and share their ideas and writing, but not that of those outside their own team.

The Aggie Code of Honor

"An Aggie does not lie, cheat, or steal or tolerate those who 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 the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit: http://aggiehonor.tamu.edu

When you sign or print your name on any homework or examinations for this class and turn it in to the instructor, you are agreeing to the following statement: "On my honor, as an Aggie, I have never given nor received unauthorized aid on this academic work."

Americans with Disability 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 Room B118 Cain Hall, phone 845-1637, e-mail disability@tamu.edu, or web site http://disability.tamu.edu/.

Copyright Statement

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