1. **New Course Requests:**

   a. ANTH 670 Bridging Theme Seminar in Anthropology  
   b. BUAD 679 Leadership Development  
   c. ECEN 741 Electronic Motor Drives  
   d. EDCI 751 Problem-Based Research Frameworks  
   e. FINC 601 Financial Analysis Practicum  
   f. FINC 602 Corporate Finance  
   g. FINC 603 Investments  
   h. FINC 604 Fixed Income Securities  
   i. FINC 605 Valuation and Financial Modeling  
   j. GEOG 634 Hydrology and Environment  
   k. GEOG 659 Geodatabases  
   l. GEOG 668 Arctic Climates  
   m. GEOG 676 GIS Programming  
   n. GEOG 678 WebGIS  
   o. PERF 625 Latino/a Expressive Culture  
   p. PETE 639 High Performance Drilling Design and Operational Practices  
   q. PHYS 647 Gravitational Physics  
   r. PHYS 651 Superstring Theory I  
   s. PHYS 652 Superstring Theory II  
   t. PHYS 653 Introduction to Supersymmetry and Supergravity  
   u. PHYS 654 The Standard Model and Beyond  
   v. PHYS 655 String Phenomenology  
   w. VSCS 697 Teaching Anatomy Lab  
   x. VIBS 622 Endocrine Toxicology  
   y. VIBS 624 Endocrinology  
   z. VTPP 624 Endocrinology  

2. **Course Change Requests:**

   a. AERO 601 Principles of Fluid Motion  
   b. HIST 678 Comparative Border Studies  
   c. HIST 679 Topics in Comparative Border Studies  
   d. ISYS 631 Information Systems Design and Development Project  
   e. SGSI 600 Development and Commercialization of Human Therapeutics  
   f. SGSI 601 Responsible Conduct of Research  
   g. SGSI 602 Training Tomorrow’s Life Science Entrepreneurs: A Practicum Course  
   h. WFSC 628 Wetland Ecology  
   i. WMHS 601 Applications and Problems in Hydrological Sciences  

3. **Special Consideration Items**

   a. Changes in the Master of Education in Educational Administration  
   b. MS HRM Saudi Arabia Program – English Language Proficiency Waiver  
   c. Executive and Professional MBA Programs – English Language Proficiency Waiver
d. Exemption request for MS non-thesis degree options in the Dwight Look College of Engineering

4. **Informational Items:**
   a. **Course Change Request**
      i. LAW 7133 Administrative Law
      ii. LAW 7452 Patent Law
      iii. LAW 7531 International Intellectual Property
   
   b. **Changes in Undergraduate Portion of 3+2 Programs**
      i. ECON 3+2 Programs – Degree Evaluation
      ii. INTS 3+2 Programs – Degree Evaluation
      iii. BA and BS in POLS 3+2 Programs – Degree Evaluation
New Courses
Texas A&M University

Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

1. Course request type:
   □ Undergraduate  □ Graduate  □ First Professional (MD, DDS, DVM, etc.)

2. Request submitted by (Department or Program Name):
   Department of Anthropology

3. Course prefix, number and complete title of course:
   ANTH 670 - Bridging Theme Seminar in Anthropology

4. Catalog course description (not to exceed 50 words):
   Examination of topics that bridge two or more subfields in anthropology, including studies of diasporas, dispersals and migration; evolution and ecology; material culture and technology; and food, nutrition, and culture. May be taken three times for credit.

5. Prerequisite(s):

   Graduate Standing

   Cross-listed with:

   Stacked with:

   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?
   □ Yes  □ No

   If yes, from ___ to ___

7. Is this a repeatable course?
   □ Yes  □ No

   If yes, this course may be taken ___ times.

   Will this course be repeated within the same semester?
   □ Yes  □ No

8. Will this course be submitted to the Core Curriculum Council?
   □ Yes  □ No

9. How will this course be graded:
   □ Grade  □ S/U  □ P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   M.A., M.Sc., Ph.D. in Anthropology

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpn.tamu.edu/resources/export-controls/export-control-basics-for-distance-education).

13. Prefix  Course #  Title (including punctuation)

   ANTH  670  Bridging Theme Seminar in Anth

   Lect  Lab  Other  SCH  CH# and Fund Code  Admin. Unit  Yr. & Year  EOC Code
   3.00  3.00  3.00  4502010001  0280  15 - 16  0  0  3  6  3  2

   Approval recommended by:

   Cynthia Werner

   Department Head or Program Chair (Type Name & Sign)  Date

   Department Head or Program Chair (Type Name & Sign)  Date

   (if cross-listed course)

   Submitted to Coordinating Board by:

   Associate Director, Curricular Services

   Chair, College Review Committee  Date

   Chair, GC or UCC  Date

   Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.

   Curricular Services - 07/14
4. **Informational Items:**
   a. **Course Change Request**
      i. LAW 7133  Administrative Law
      ii. LAW 7452  Patent Law
      iii. LAW 7531  International Intellectual Property
   
   b. **Changes in Undergraduate Portion of 3+2 Programs**
      i. ECON 3+2 Programs – Degree Evaluation
      ii. INTS 3+2 Programs – Degree Evaluation
      iii. BA and BS in POLS 3+2 Programs – Degree Evaluation
**Bridging Theme Seminar in Anthropology**

**ANTH 670 The Pleistocene Peopling of the Old World**

*Time Monday 10-1*

*Room TBA*

**Course Instructors**

Sheela Athreya  
Office: Anthropology Building 316E; athreya@tamu.edu  
Office Hours: TBA

Kelly Graf  
Office: Anthropology Building 203; kgraf@tamu.edu; 979-845-0137  
Office Hours: TBA

**Course Prerequisites**

Graduate standing.

**Course Description**

This class will provide an in-depth study of human dispersals and migrations out of Africa and across the Old World from the Early to Late Pleistocene through the lens of both archaeology and biological anthropology. In order to fully understand the major milestones and “firsts” that allowed these dispersals in human evolutionary history, it is necessary to examine both the biological and material culture remains. The archaeological evidence for the early use of fire, for example, will be examined in conjunction with the skeletal evidence to see how both biological and behavioral changes allowed hominins to successfully inhabit more northern latitudes in their peopling of Eurasia. The empirical evidence will be reviewed in the context of both archaeological and biological theoretical frameworks. In the end, the course will provide students with an interdisciplinary, multidimensional understanding of the fundamentals of the study of early human dispersals.

**Learning Outcomes/Objectives**

- Define current problems in the study of the Early to Late Pleistocene dispersal of hominins from Africa to various regions of the Old World.
  - Who first left Africa? When and how did they leave? Where did they disperse? How did they settle into these regions?
  - How many secondary dispersals from Africa were there? When did these occur? What routes did they take? How did they disperse?
  - When and how did humans colonize the North?
  - When and how did humans disperse to islands?
- Understand the major models used by anthropologists to explain the Pleistocene peopling of the Old World.
- Know and understand the contributions of the following areas of study involved in peopling of the Old World research: biological anthropology, archaeology, human genetics, foraging theory, geology, vertebrate paleontology, and paleogeography.
• Be able to construct a model explaining the Pleistocene peopling of the Old World, using evidence from ALL relevant fields, not just your own.
• Be able to critique new scientific reports in the context of our current understanding of the Pleistocene peopling of the Old World, regardless of field.
• Write “publishable quality” essays and papers that present interesting, logical, and clear arguments using scholarly publications as references and style conventions of the journal, PaleoAnthropology.
• Orally present clear, concise, and convincing arguments.

Course Structure and Policies

This is the first bridging-theme graduate course that is open to all students interested in Ice-Age peopling of the Old World, no matter their sub-discipline in Anthropology. The course is a graduate seminar that meets for three hours once every week during the semester. Class meetings will consist primarily of student presentations and group discussions. Typically each session will begin with general discussion of assigned readings addressing the day’s topic. This will be followed by brief student presentations and round-table discussions of specific aspects of the topic. On some days student presenters will debate specific issues. On other days presentations will probe a specific site, idea, or anthropologist’s work. Course instructors will provide an outline of each class session at least two weeks in advance.

Oral Presentations (150 pts). Each week, each student will be responsible for preparing and delivering a brief, yet informative, oral presentation that focuses on an assigned topic. Presentations should not extend beyond 30 minutes and presenters should be ready to guide an in-class discussion (~15 minutes) regarding that topic. As a guide, presentations should not exceed 12-15 slides the first slide should introduce the topic and thesis/goal of the presentation. The second-third slide(s) should relate materials and methods. Remaining slides should present important results—graphics, data tables, etc.—from sources. Conclusions should be stated in one’s own words and not simply read from slide bullets.

Presentations will be evaluated for content, organization, mechanics, and in particular how insightful the presentation is (i.e., how effectively the student-presenter generates discussion and ties that discussion to the class topic). Additionally, the presenter will distribute a one-page handout to class. This handout should list cited references first and provide important graphics (tables and figures) second. Font size can should not be smaller than 8 point. Points will be deducted for weeks that the student is unprepared with powerpoint/handout materials, fails to provide a thesis, report results, or offer their interpretation of the topic, and or is unprepared to lead the subsequent 15 minute discussion.

Midterm Essay (50 pts). Each student will complete a midterm essay, due in class the week of March 23, 2015. This essay will be no more than 8 pages long, double-spaced, 12-point font, and will focus on some aspect of our discussions regarding method and theory in paleoanthropology (seminars 2-8). Essays will be written in the style of PaleoAnthropology (consult the Paleoanthropology Society webpage. See “Guidelines for Authors” http://www.paleoanthro.org/journal/), paying careful attention to title, abstract, headings, subheadings, and bibliographic style. Papers will be evaluated for content, organization, and mechanics.

Final Paper (100 pts). The final paper will be a synthesis of the class, through which students will demonstrate competency in the course’s content by developing a working model explaining the process of the Pleistocene peopling of the Old World. It should be in the range of 15-20 pages in length (double-spaced, 12-point font), and will be due on our last class meeting during the week of April 27, 2015. Students should discuss their papers in advance with course instructors. Final papers will also follow the same style guidelines used for the essays, and will be evaluated in the same way.
Note about presenting dates: For consistency, in all assignments, radiocarbon dates should be presented in radiocarbon years (\(^{14}\)C BP) with calibrated dates following in parentheses (cal BP), while ages of events based on a radiocarbon chronology should be presented in calendar years (cal BP). Dates resulting from other dating techniques should be presented in years BP or ka.

**Geography Quizzes (50 pts).** All anthropology students should be well versed in the geography of the regions they study. In this course you are studying a vast region and need to become familiar with its geographical oddities. For this reason, students will be quizzed twice. First quiz will cover large-scale geography (i.e., continents, countries, seas, oceans, major rivers and lakes, modern-day capitals). The second quiz will cover paleoanthropological site and theme locations discussed throughout the semester.

**Discussion Participation (100 pts).** Beyond delivering excellent presentations and papers, a requisite of the course is verbal communication in a group setting, in other words, participation in group discussion. All students are required to speak in each class session to be successful in this class. Your participation grade will be evaluated on the basis of your preparedness—i.e., you should demonstrate that you have done the readings and identified main points for discussion. For weeks where you do not make contributions or respond to questions regarding a particular paper, we will assume you have not done the readings and penalize you 5 points.

**Course Evaluation**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Oral Presentations (25 points each)</td>
<td>150</td>
</tr>
<tr>
<td>1 Mid-term Essay (50 points each)</td>
<td>50</td>
</tr>
<tr>
<td>1 Final Written Essay (100 points)</td>
<td>100</td>
</tr>
<tr>
<td>2 Geography Quizzes (25 points each)</td>
<td>50</td>
</tr>
<tr>
<td>Discussion Participation (100 points)</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>450 points</strong></td>
</tr>
</tbody>
</table>

**Grading Scale**

- A= 405-450 points;
- B=460-404 points;
- C=315-359 points;
- D=270-314 points;
- F=below 270 points

**Attendance**

Following TAMU student rules on attendance, class attendance is viewed as an individual student responsibility. Students, therefore, are expected to come to class and complete all course assignments. Students are responsible for knowing the course schedule outlined in this syllabus, and in the case of an unavoidable absence are also responsible for providing satisfactory evidence of that absence. A list of acceptable excused absences is provided at [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07). Students with acceptable excused absences must provide written notification prior to the date of absence or in cases where advanced notification is not possible (e.g., auto accident, other emergency) written notification must be made within two working days following the absence.

**Electronics:** Because they are disruptive, **cell phone calls and texting/messaging are strictly prohibited in class.** Laptops and tablets are fine as long as they are being used to take notes. If a student using an electronic device in class for purposes other than class-note taking becomes distracting to fellow students and/or instructors and, therefore, disruptive to class, that student will be asked to leave class.

**Americans with Disabilities Act (ADA) Policy Statement**

The 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.

Department of Anthropology and TAMU Statement on Diversity
Respect for cultural and human biological diversity is at the core of study in Anthropology. In this course,
each voice in the classroom has something of value to contribute to class discussion. Please respect the
different experiences, beliefs and values expressed by your fellow students and instructor, and refrain
from derogatory comments about other individuals, cultures, groups, or viewpoints. The Anthropology
Department supports the Texas A&M University commitment to Diversity, and welcomes individuals of
all ages, backgrounds, citizenships, disabilities, education, ethnicities, family status, genders, gender
identities, geographical locations, languages, military experience, political views, races, religions, sexual
orientations, socioeconomic statuses, and work experiences (http://diversity.tamu.edu/).

Academic Integrity Statement
“An Aggie does not lie, cheat, or steal or tolerate those who do.”

Required Course Texts


Below is a list of several books that you will refer to over the course of the semester. You may consider
purchasing some of these (try alibris.com or amazon.com). Remember – in no way is this list exhaustive,
but it provides some of the most current research on the topics of Paleanthropology and the Paleolithic.

Adams, Brian, and Brooke Blades, editors (2009) Lithic Materials and Paleolithic Societies. Wiley-
Blackwell, Hoboken.

Ashton, Nick, Simon Lewis, and Chris Stringer, editors (2011) The Ancient Human Occupation of


Bar-Yosef, Ofer, and João Zilhão, editors (2006) Towards a Definition of the Aurignacian. Instituto
Português de Arqueologia, Lisbon.


Archaeopress BAR, Oxford.

York.


**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Jan 19</td>
<td>Introduction to course: bridging themes.</td>
</tr>
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</table>

Setting the Stage: Method and Theory in Pleistocene Peopling of the Old World

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Jan 26</td>
<td>Theory I: Introduction to the method and theory of Pleistocene dispersals research</td>
</tr>
<tr>
<td>3 Feb 2</td>
<td>Theory II: Debates (Out of Africa I, Out of Africa II, Hybridization)</td>
</tr>
<tr>
<td>4 Feb 9</td>
<td>Theory III: Paleogeographic constraints and routes of dispersal</td>
</tr>
<tr>
<td>5 Feb 16</td>
<td>Methods I: Geoarchaeology and geochronology</td>
</tr>
<tr>
<td>6 Feb 23</td>
<td>Methods II: Cranial and postcranial remains</td>
</tr>
<tr>
<td>7 March 2</td>
<td>Methods III: Molecular genetics/ancient DNA</td>
</tr>
<tr>
<td>8 March 9</td>
<td>Methods IV: Lithics (Quiz 1)</td>
</tr>
<tr>
<td>March 16</td>
<td><em>Spring Break!</em></td>
</tr>
</tbody>
</table>

The Paleoanthropological Record for the Pleistocene Peopling of the Old World

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 March 23</td>
<td>Peopling of Southwest Asia (<em>Midterm Essay due in class</em>)</td>
</tr>
<tr>
<td>10 March 30</td>
<td>Peopling of Europe</td>
</tr>
<tr>
<td>11 April 6</td>
<td>Peopling of Southeast Asia</td>
</tr>
<tr>
<td>Date</td>
<td>Day</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>12</td>
<td>April 13</td>
</tr>
<tr>
<td>13</td>
<td>April 20</td>
</tr>
<tr>
<td>14</td>
<td>April 27</td>
</tr>
</tbody>
</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate □ Graduate □ Professional □
Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   □ Undergraduate □ Graduate □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):
   Mays Business School
3. Course prefix, number and complete title of course:
   BUAD 679 Leadership Development

4. Catalog course description (not to exceed 50 words):
   Focus on assignments and activities to develop self-awareness as a leader and encourage reflection; strategies to
   improve leadership and communication with emphasis on leading, influencing, and teamwork in a business context;
   integration of core business knowledge and skills.

5. Prerequisite(s):
   Enrollment is limited to BUAD Classification 7 MBA students.

6. Cross-listed with:
   Stacked with:
   Cross-listed courses require the signature of both department heads.

7. Is this a variable credit course?
   □ Yes □ No
   If yes, from ______ to ______

8. Is this a repeatable course?
   □ Yes □ No
   If yes, this course may be taken ______ times.

9. Will this course be repeated within the same semester?
   □ Yes □ No

10. Will this course be submitted to the Core Curriculum Council?
    □ Yes □ No

11. How will this course be graded:
    □ Grade □ S/U □ P/F (CLMD)

12. This course will be:
    a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)
       Full-time MBA, Professional MBA, Executive MBA
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

13. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

14. I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-
controls/export-controls-basics-for-distance-education).

Approved by:

Department Head or Program Chair (Type Name & Sign) Date

Department Head or Program Chair (Type Name & Sign) Date
(if cross-listed course)

Submitted to Coordinating Board by:

Chair, GC or UCC Date

Associate Director, Curricular Services Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Course Information

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Leadership Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Number</td>
<td>BUAD 679</td>
</tr>
<tr>
<td>Credit Hours</td>
<td>1 Credit Hour (awarded spring, 2016)</td>
</tr>
<tr>
<td>Meeting Times</td>
<td>Various, see detailed schedule below</td>
</tr>
<tr>
<td>Meeting Locations</td>
<td>All at CITYCENTRE unless otherwise noted</td>
</tr>
</tbody>
</table>

Instructor Information

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Michael Alexander, Director &amp; Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone number</td>
<td>Office: (979) 845-4714, Cell: (979) 229-1387</td>
</tr>
<tr>
<td>Email address</td>
<td><a href="mailto:malexander@mays.tamu.edu">malexander@mays.tamu.edu</a></td>
</tr>
<tr>
<td>Office hours</td>
<td>Class weekends, Friday 5:00 – 9:00 pm and Saturday, 8:00 am – 2:00 pm</td>
</tr>
<tr>
<td></td>
<td>Weekdays, by appointment</td>
</tr>
<tr>
<td>Office location</td>
<td>Wehner, 385F &amp; Citycentre</td>
</tr>
</tbody>
</table>

Course Description and Prerequisites

BUAD 679, Leadership and Professional Development, prepares you to lead with confidence. Over the two years of your Professional MBA experience, we'll use a four-pronged approach to increase your leadership capacity.

Prerequisite: Enrollment is limited to BUAD Classification 7 MBA students. This course may not be repeated for credit.

Self-awareness and development

We believe that before you can lead others, you must know yourself. During this course, and during your two years in the Professional MBA Program, we'll bridge the gap between what you know about yourself and what you need to know to be an effective leader. You'll more deeply discover yourself through self-assessment tools like the Clifton StrengthsFinder 2.0, the Hay Group ESCI 360° assessment, and the Birkman Method Assessment. You'll understand how others see you and you'll increase your emotional and social competency through tools like the Hay Group Emotional and Social Competency Inventory. You'll think deeply about your own approach
Core business knowledge and skills

Business leaders need core knowledge and skills to succeed – and this knowledge is the foundation of our MBA program. To enhance that core, we weave case-based leadership content throughout the curriculum. This approach integrates leadership principles and tested problem-solving methods into foundational business learning. During BUAD 679, you’ll be encouraged to integrate your newly attained core business knowledge and skills from other courses into your personal leadership brand.

Strategies for leadership, teamwork, communication and problem solving

Influencing, motivating, guiding, and supporting others in achieving a common purpose are the backbone of a leader’s duties. From team coaching led by outside experts, to negotiating skill development and new views of yourself as an ethical leader, to the use of team management and problem-solving frameworks, BUAD 679 will help you set yourself apart in the workplace as a skilled leader.

Real world practice

To excel as a leader, you need practice. This course, and our program in general, includes opportunities to test your skills – whether it be working closely with your MBA team to accomplish your team objectives, leading your team through a mock crisis at the Disaster City experience, engaging in pressure-packed class-room simulations, or solving a real world problem in your Capstone Project.

The Texas A&M MBA Promise

Come ready to learn. Leave ready to lead.
Learning Outcomes

By the end of the course students should be able to:

- Understand your strengths and more clearly know how to utilize your strengths in individual contribution, leadership, and team contexts.
- Become aware of and use multiple leadership and decision-making frameworks.
- Deepen your understanding of who you are and what drives your emotions, behaviors, and decisions.
- Be aware of and use various team frameworks.
- Apply lessons learned from your MBA team experience to your work environment.
- Enhance your ability to get things done with and through other people.
- Explain what it means to be a reflective learner and leader.
- Clearly and compelling express your personal leadership statement.

Textbook and/or Resource Material

See detailed schedule of resources and pre-readings in the table “Detailed Course Inventory”
Grading Policies

See detailed weights of each event and activity during the course in the table “Detailed Course Inventory”. One credit hour for course will be awarded in the spring of your second year (your last term) in the program.

The grading scale for the course is:

- A = 180-200 points
- B = 160-180 points
- C = 140-160 points
- D = 120-139 points
- F = 119 or fewer points

The quality of your participation will determine the quality of your experience in BUAD 679. To create the best experience possible, each and every one of us needs to actively contribute and be actively engaged. The quality of your contribution depends on your level of pre-class preparation, and your thoughtfulness and intentionality regarding your leadership development. Below is a guideline of in-class/activity behaviors and their corresponding weights from 0 to 4. I will apply these weights to the “points” for each event/activity/session deliverable as detailed in the “Detailed Course Inventory” below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Behavioral evidence</th>
</tr>
</thead>
</table>
| 4     | • Consistently offers to contribute in ongoing fashion.  
       | • Demonstrates excellent preparation: has analyzed case company exceptionally well, relating it to readings and other material and case companies from previous days’ classes.  
       | • Analyzes, synthesizes, and evaluates case material, puts together pieces of the discussion to develop new approaches that take the class further.  
       | • Contributes in a very significant way to ongoing discussion: keeps analysis focused, responds thoughtfully to other’s comments. Takes risks by offering to do more complicated analyses.  
       | • Actively listens, suggests alternative ways of approaching analysis and helps class analyze which approaches are appropriate. |
| 3     | • Offers to contribute in ongoing fashion.  
       | • Demonstrates good preparation: knows case company and background reading well, has thought through implications.  
       | • Interprets and analyzes case material. Graciously accepts challenges from other students.  
       | • Actively listens, builds on previous points. Responds to other students’ points, questions others in a constructive way, offers and supports suggestions that may be counter to the majority opinion. |
| 2     | • Does not offer to contribute to discussion, but contributes moderately when called on.  
       | • Offers information straight from the case or background reading without elaboration.  
       | • Demonstrates adequate preparation: knows basic facts about the case company but shows little evidence of trying to interpret or analyze the facts.  
       | • Demonstrates sporadic involvement. |
| 1     | • Present and not disruptive.  
       | • Does not offer to contribute, attempts to respond when called on but comments are weak.  
       | • Demonstrates lack of preparation.  
       | • Demonstrates infrequent involvement in discussion. |
| 0     | • Absent, or present but disruptive, or arrived late without advance notice. |
Attendance and Make-up Policies

Please see http://student-rules.tamu.edu/rule07 for details regarding “excused” and “unexcused” absences and student responsibilities.

The value you take from BUAD 679 is dependent on the investment you make in all course activities and events. Absence from activities will create difficult-to-overcome limitations on your learning. Additionally, you are part of the “healthy co-creation of learning” in BUAD 679 and in the Professional MBA Program. In addition to the responsibility to your learning, you have a responsibility to each of your classmates to help them learn and grow as a leader. Your presence in course activities is required to meet both of these responsibilities.

Make-up sessions or assignments will be available only to students who meet the following criteria.

1. The student must contact me by email, malexander@mays.tamu.edu, before missing a class session, event, or deliverable.

2. The reason for missing must qualify as a university approved absence and the student must provide written documentation (e.g., participation in an authorized University activity, injury or illness that is too severe or contagious for the student to attend class, death or major illness in a student’s immediate family, illness of a dependent family member, participation in legal proceedings or administrative procedures that require a student’s presence, or observance of religious holy days).

3. Third, make-up assignments must be completed within one week of the date of the missed activity, unless it is not possible to take the make-up test for the same reasons as noted above. Any deviance from this one-week standard must be agreed upon in writing by you and me.

Other absences may be excused at the discretion of the instructor with prior notification and proper documentation. In cases where prior notification is not feasible (e.g., accident or emergency) you must provide notification by the end of the second working day after the absence, including an explanation of why you could not send notice prior to the class, event, or activity.

I also understand that, as a working professional, “life happens”. Communicate with me in advance, be interested and engaged in your own leadership development, be interested and engaged in the leadership development of your classmates, and you and I will work together to determine a correct course of action in the case you miss a course event or activity.
Other Pertinent Course Information

I reserve the right to intentionally introduce uncertainty or ambiguity into activities and assignments. A key component to leadership is making decisions and moving forward under uncertainty. Occasionally, we’ll practice doing just that.

I also reserve the right to introduce additional reflective exercises in the program or course. I believe in reflection. John Dewey, an American philosopher, psychologist and educational reformer, said, “We do not learn from experience... we learn from reflecting on experience.” Since I’ll be with you most of the way through your two years, I’ll occasionally see an opportunity for us to stop, think, and share something you’ve learned about yourself or someone else as a leader, or something you’ve learned about yourself or someone else as a team member, or other key lessons. I hope you’ll develop some habits around reflective learning that you’ll use for yourself and with those around you for years to come.

Changes to the Syllabus

I reserve the right to make reasonable changes to the syllabus. Changes will be made only if doing so will improve the learning experiences of the students, or in response to unanticipated circumstances, e.g., weather-related school closure or other required changes to events or schedules. I will communicate changes to the syllabus directly and provide updated copies of the syllabus, with changes clearly identified, through eCampus.

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

Aggie Honor Code

"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. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. I don’t tolerate acts of academic dishonesty. If such behavior comes to my attention, I will file a formal report with the Honor Council for all parties involved.

For further information about the Aggie Honor Code, student resources, rules and procedures, and penalties for dishonorable conduct, please see the Aggie Honor System office on the web at: http://aggiehonor.tamu.edu/

You may also reach the Aggie Honor System office at:

Phone: 979-458-3378
Email: aggiehonor@tamu.edu

On course work, assignments, and examinations at Texas A&M University, you may be asked to sign the following Honor Pledge:

"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."
<table>
<thead>
<tr>
<th>Topic</th>
<th>Facilitator</th>
<th>Required Reading / Pre-work</th>
<th>Deliverables</th>
</tr>
</thead>
</table>
| 1 StrengthsFinder           | Deborah Mann / Evolve Performance Group | StrengthsFinder eLearning Module                                                           | • Complete online self-assessment
|                             |                              |                                                                                           | • Contributions Worksheet                                                                        |
| 1 StrengthsFinder session   | Jeff Tobaben                 | Read your "Strengths Insight Guide" from your Strengthsfinder self-assessment results       | n/a                                                                                              |
| 2 Team Charter              | Michael Alexander            | 1. *Five Dysfunctions of a Team*, (Patrick Lencioni). 2. Team Charter, distributed at Residency Week | Complete Team Charter with your team during your "team night" at Residency Week.                  |
| 2 The Aggie Honor Code      | General John VanAlstyne       | Case: "Chris and Alison Weston", (Sucher & Moore), Harvard Business School.                | none                                                                                              |
| 3 "Why are we here?"        | Michael Alexander            |                                                                                           | • In-class engagement
|                             |                              |                                                                                           | • In-class writing assignment                                                                   |
|                             |                              |                                                                                           | • In-class team presentations                                                                  |
| 5 Reflective Learning       | Dr. Nancy Simpson            | Article: "Discovering Your Authentic Leadership" (George, Sims, McLean, and Mayer), Harvard Business Review. | Personal Leadership Statement (PLS)
|                             |                              |                                                                                           | • In-class writing assignment
<p>|                             |                              |                                                                                           | • January X: Draft 1 of PLS due, to be submitted via eCampus.                                   |
|                             |                              |                                                                                           | • January X – April X: Receive written feedback on your PLS from Dr. Simpson.                    |
|                             |                              |                                                                                           | • May X: Draft 2 of PLS due, to be submitted via eCampus.                                       |
|                             |                              |                                                                                           | • July X: Coaching day: You will meet in pairs with a coach to discuss and further refine your PLS. |
|                             |                              |                                                                                           | • Spring 20xx: PLS final submitted as part of Capstone deliverables.                            |
|                             |                              |                                                                                           | DATES will be finalized and announced in December, Term 1.                                      |</p>
<table>
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</table>
| 6   Five Dysfunctions Model for teams      | Michael Alexander           | Five Dysfunctions of a Team, (Patrick Lencioni).                                          | • In-class engagement  
    • In-class writing assignment                                                   |
| 7   Personal Leadership Statement          | Dr. Nancy Simpson           | Individualized feedback from Dr. Simpson                                                   | • Submission of Draft 1  
    • Submission of Draft 2  
    (see above for dates)                                                            |
| 8   Disaster City                          | Michael Alexander           |                                                                                           | Engagement in individual and team activities during event                     |
| 9   Second Year Team Formation & Disaster City + First year Reflection              | Michael Alexander           | Review "The Model" section of Five Dysfunctions of a Team, (Patrick Lencioni).            | • Engagement in team formation break-out session (Personal Histories Exercise)  
    • In-class reflective writing assignment                                           |
| 10  Personal Leadership Statement          | Dr. Nancy Simpson, Michael Alexander, and Coaches | 1. Re-read your own Personal Leadership Statement, Draft 1 & 2  
    2. Read your peer's Personal Leadership Statement, Draft 2                          | Engagement in Coaching Session with peer and coach                                   |
| 11  Up Your Game: A Leadership Challenge (simulation) | Michael Alexander           |                                                                                           | • Engagement in simulation  
    • Engagement in class discussion  
    • In-class reflective writing assignment                                              |
| 12  Ethics                                  | Dr. Mary Lea McAnally       | • Case: "Roger's Dilemma"  
    • Article: "A Framework for Ethical Reasoning", (Sucher & Hsieh), Harvard Business School. | In-class engagement |
| 13  Negotiation Strategy and Skills        | Dr. George Siedel           | Getting to Yes: Negotiating Agreement Without Giving In, (Fisher, Ury, Patton).           | Engagement in session, individual negotiations, and team negotiations          |
| 14  Personal Leadership Statement          | Dr. Janet Marcantonio & Michael Alexander | • Previous drafts of Personal Leadership Statement  
    • All previous reflective writings                                                   | • Capstone reflections paper  
    • Capstone Q&A (related to your leadership reflections)                             |
I like Patti’s suggestion to add MBA rather than BUAD so it’s clear. Otherwise, I’m good.

Regards,

Julie Orzabal | Director
Executive MBA Program
Mays Business School | Texas A&M University
ph: 979.845.4714 | j-orzabal@tamu.edu
----------------------------------
http://emba.tamu.edu

It’s Time For Texas A&M

No comments/edits on the wording; however, would it be preferable to list MBA students instead of BUAD classification 7. Will students more readily recognize a restriction with MBA listed versus BUAD?

Thinking we might be more likely to head off inquiries with MBA than BUAD.

Howdy All,

Please provide edits or your approval for the course description below for the leadership course. Patti/Aber, feel free to forward to Janet if appropriate.

Thanks,
Deb
From: Alexander, Michael  
Sent: Tuesday, September 09, 2014 7:54 AM  
To: Mann, Deborah  
Subject: RE: New Leadership course

Sounds good to me.

Thank you.

From: Mann, Deborah  
Sent: Tuesday, September 09, 2014 7:49 AM  
To: Alexander, Michael  
Subject: New Leadership course

Your thoughts on this:

**Leadership Development. Credit 1 to 4.** Focus on assignments and activities to develop self-awareness as a leader and encourage reflection; develop strategies to improve leadership and communication with emphasis on leading, influencing, and teamwork in a business context; integrate core business knowledge and skills. Prerequisite: Enrollment is limited to BUAD Classification 7.


---

Thanks!

Deborah Mann | Assistant Director  
Professional MBA Program, Mays Business School | Texas A&M University  
4117 TAMU | College Station, TX 77843-4117

ph: 979.458.4250 | mobile: 979.777.2055 | dmann@mays.tamu.edu  
[http://pmba.tamu.edu/](http://pmba.tamu.edu/)
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: □ Undergraduate  ✔ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Electrical and Computer Engineering
3. Course prefix, number and complete title of course: ECEN 741 ELECTRONIC MOTOR DRIVES

4. Catalog course description (not to exceed 50 words):
Application of semiconductor switching power converters to adjustable speed DC and AC motor drives; steady state theory and analysis of electric motion control in industrial, robotic and traction systems; laboratory experiments in power electronic motor drives and their control.

5. Prerequisite(s):

<table>
<thead>
<tr>
<th>Graduate classification.</th>
<th>Stacked with: ECEN 441</th>
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</thead>
<tbody>
<tr>
<td>Cross-listed with:</td>
<td></td>
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<tr>
<td>Cross-listed courses require the signature of both department heads.</td>
<td></td>
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</tbody>
</table>

6. Is this a variable credit course? □ Yes  ✔ No If yes, from _____ to _____
7. Is this a repeatable course? □ Yes  ✔ No If yes, this course may be taken _____ times.
   Will this course be repeated within the same semester? □ Yes  □ No
   Will this course be submitted to the Core Curriculum Council? □ Yes  ✔ No
   How will this course be graded:  ✔ Grade  □ S/U  □ P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   M.E.N., M.S., Ph.D. in Electrical and Computer Engineering

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. ✔ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix: ECEN  Course #: 741  Title (excluding punctuation): ELECTRONIC MOTOR DRIVES

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
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<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
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</table>

Approval recommended by: Krishna Narayanan

Department Head or Program Chair (Type Name & Sign) Date Chair, College Review Committee Date

Department Head or Program Chair (Type Name & Sign) Date (if cross-listed course)

Submitted to Coordinating Board by: Chair, GC or UCC Date

Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Course title and number: ECEN 741 ELECTRONIC MOTOR DRIVES
Term: Fall 2015
Meeting times and location: TBD

Course Description and Prerequisites

Application of semiconductor switching power converters to adjustable speed DC and AC motor drives; steady state theory and analysis of electric motion control in industrial, robotic and traction systems; laboratory experiments in power electronic motor drives and their control. Prerequisite: Graduate classification.

Learning Outcomes or Course Objectives

Upon completion of the course, students will be able to:
• Understand fundamentals of electric DC and AC motors.
• Understand basic power electronics for electric motor drives.
• Specify and design basic building blocks of electronic controls of electric motor drives.
• Understand applications and mechanical loads of electric motor drives.
• Understand the technical benefits of modern electric motor drives for energy conservation and efficiency.

Instructor Information

Name: Mark Ehsani
Telephone number: (979) 845-7582
Email address: ehsani@ece.tamu.edu
Office hours: TBD
Office location: WEB 205-N

Textbook and/or Resource Material


Grading Policies

Quiz #1: 15%
Quiz #2: 15%
Lab: 15%
Mini Graduate Projects: 15%
Homework: 10%
Graduate Design Project: 25%
Class Participation: 5%

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

Lab reports are due one week after the completion of a lab.

For information on university excused absences visit http://student-rules.tamu.edu/rule07.
Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
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<tr>
<td>3</td>
<td>Magnetic principles of electrical machines</td>
</tr>
<tr>
<td>4</td>
<td>DC motor drives</td>
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<td>5</td>
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<tr>
<td>6</td>
<td>Speed control of DC motors</td>
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<tr>
<td>7</td>
<td>Quiz #1</td>
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<tr>
<td>8</td>
<td>BLDC motor drives</td>
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<td>9</td>
<td>Conceptual development of induction motors</td>
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<td>10</td>
<td>Construction of induction motors</td>
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<td>11</td>
<td>Torque production in induction motors</td>
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<tr>
<td>12</td>
<td>Induction motor equivalent circuit</td>
</tr>
<tr>
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<td>14</td>
<td>Speed control of induction motors</td>
</tr>
<tr>
<td></td>
<td>Quiz #2</td>
</tr>
<tr>
<td>14</td>
<td>Design considerations for electric motor drives</td>
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Design Project

Americans with Disabilities Act (ADA)

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

Academic Integrity

"An Aggie does not lie, cheat, or steal, or tolerate those who do."
For additional information please visit: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)
Course title and number: ECEN 441 ELECTRONIC MOTOR DRIVES
Term: Fall 2015
Meeting times and location: TBD

Course Description and Prerequisites

Application of semiconductor switching power converters to adjustable speed DC and AC motor drives; steady state theory and analysis of electric motion control in industrial, robotic and traction systems; laboratory experiments in power electronic motor drives and their control. Prerequisite: Junior or senior classification in electrical engineering.

Learning Outcomes or Course Objectives

Upon completion of the course, students will be able to:
- Understand fundamentals of electric DC and AC motors.
- Understand basic power electronics for electric motor drives.
- Specify and design basic building blocks of electronic controls of electric motor drives.
- Understand applications and mechanical loads of electric motor drives.
- Understand the technical benefits of modern electric motor drives for energy conservation and efficiency.

Instructor Information

Name: Mark Ehsani
Telephone number: (979) 845-7582
Email address: ehsani@ece.tamu.edu
Office hours: TBD
Office location: WEB 205-N

Textbook and/or Resource Material


Grading Policies

Quiz #1: 20%
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For additional information please visit: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

1. Course request type:
   - Undergraduate
   - Graduate
   - First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Department of Teaching, Learning and Culture

3. Course prefix, number and complete title of course:
   EDCI 751 - Problem-Based Research Frameworks

4. Catalog course description (not to exceed 50 words):
   Introduction to scientific research associated with problems in K-12 curriculum and
   instruction settings; evaluation and problem solving for effective solutions to educational
   problems in school-based settings.

5. Prerequisite(s):
   Graduate Classification and admission to Online Ed.D. in EDCI

   Cross-listed with: ________________________________

   Stacked with: ________________________________

   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?
   - Yes
   - No
   If yes, from ______ to ______

7. Is this a repeatable course?
   - Yes
   - No
   If yes, this course may be taken ______ times.
   Will this course be repeated within the same semester?
   - Yes
   - No

8. Will this course be submitted to the Core Curriculum Council?
   - Yes
   - No

9. How will this course be graded?
   - Grade
   - S/U
   - P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)

      Online Ed.D. in EDCI

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

      Ph.D. in EDCI

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    EDCI  751  PROBLEM BASED RESEARCH FRAMEWORK

    | Lect | Lab | Other | SCH | CIP and Fund Code | Admin Unit | Acad. Year | HICE Code |
    |------|-----|-------|-----|-------------------|------------|------------|-----------|
    | 3.00 | 0.00| 0.00  | 3.00| 1306030004       | 2804       | 15         | -         |

    Academic Level: 1 yr

    Approval recommended by:

    | Dr. Yeping Li | 11/11/14 |
    | Department Head or Program Chair (Type Name & Sign) | Date |

    | Dr. George Cunningham | 11/11/14 |
    | Chair, College Review Committee | Date |

    | Dr. George Cunningham | 11/11/14 |
    | Dean of College | Date |

    | Dr. Mark Zoran | 11/11/14 |
    | Chair, GC or UCC | Date |

    Submitted to Coordinating Board by:

    | Associate Director, Curricular Services | Date |

    Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Course title and number
EDCI 751: Problem-Based Research Frameworks

Term
Spring 2015

Meeting times and location
Online – e-Campus Class; Weekly classes open on Sunday night at 7:30 pm beginning the first week of class, spring semester. All assigned class assignments and forum postings must be completed by the following Monday at 8:00 am.

Course Description and Prerequisites

Introduction to scientific research methods associated with problems in the K-12 curriculum and instruction setting; evaluation and problem solving for effective solutions to educational problems in school-based settings. Prerequisite: Graduate classification, and admission to the Online Ed.D. Program in EDCI.

This course is the first in a sequence of four Discovery and Research courses. This first course is designed to provide Online Ed.D. students with an introduction to research methods associated with problems of practice in curriculum and instruction. The sequence aims to enhance educational leaders’ professional competence in discovering and solving problems leading to effective solutions to educational problems in school-based settings. Fundamental in leaders’ skill sets are abilities to (1) use and do scientific research in their everyday practice as an educational leader, (2) make valid inferences using qualitative and quantitative evidence, and (3) analyze and evaluate educational programs, policies, institutions, and processes.

**Syllabus is intended as a guide, not a contract. If it is in the best interest of the class to make revisions, the instructor will do so. The instructor will notify students promptly of any revisions.

Instructor Information

Name
James Laub, PhD

Email address
jlaub@tamu.edu

Office hours
312 Harrington, by appointment, telephone or email

Students enrolled in this course will be able to:

Develop a rationale for the use of data collection strategies, policy analysis and problem solving models in solving problems of practice in educational settings.

Identify and describe ways that data can be used in the steps of solving problems of practice, including (a) describing a problem, (b) identifying and validating that a problem exists; (c) understanding and diagnosing a problem, (d) planning and implementing a problem solution, (e) addressing the needs of all students and promoting cultural awareness, (g) evaluating progress in solving the problem.

Identify typical procedures in formulating solutions to typical problems related to answering these questions: Does it work? How does it work? Is it worthwhile? Will it work for my setting? Is it working in this setting?

Identify and describe typical problem solving/research models used by educational leaders in formulating solutions to problems.

Analyze typical educational scenarios by applying their knowledge of procedures, problem solving models and use of data. Generate educational scenarios to demonstrate use of data and problem solving models.
Required Text:


Additional resources (PDF format) (further readings will be developed)


Boykin, A., & Noguera, P. (2011). Creating the opportunity to learn moving from research to practice to close the achievement gap. Alexandria, Va.: ASCD.


Grading Policies and Course Expectations

Class Activities (CA)

Punctuality – Opening and closing dates are posted for each week's activities. Online class discussions and participation in weekly activities are an extremely important part of learning; punctual participation is essential. If you are late with an assignment, one point per day will be deducted for an assignment; except for university excused absences. If you miss a class assignment by an entire week, it is your responsibility to notify the instructor in advance or as soon as possible afterwards to discuss ways to make up the work. Only university-excused absences with required documentation will allow you to make up missed work. Refer to http://student-rules.tamu.edu/rule07 for details on excused absences.

Participation in Online Discussions – A major goal of this class is for you to be able to articulate your understandings in writing to others in class. Class discussion is crucial to the development of this skill. By participating in critical online discussions of the week's assigned readings, you and your classmates will improve abilities to write publicly and critically about issues and ideas and to question (politey) the positions of others. Each student is expected to make two substantial posts per week. Initial posts are due on the Monday at noon after the previous Thursday's class.

Substantial Posts – Note: the word "substantial" refers to posts indicating thought-provoking responses that (a) either generate a new idea or evaluate an idea expressed in the reading or in another student's initial post; and (b) embeds or uses information from the required reading. "Off-the-top" responses without substance will receive no credit. Total points are awarded as follows: (10-9 = Substantial; 8-6 = Approaching Substantial; 5-3 = Few substantial comments; 2-1 = Superficial post).

Community Learning – Knowledge Forum (KF)

Contributions to the Knowledge Forum (KF) - A second goal of this class is for you to learn to work collaboratively to produce new knowledge through the Knowledge Forum postings. Knowledge Forum work provides an opportunity for you to introduce new readings and resources to the rest of the class.

Chapter Leaders: Each week, one to three students will develop the question/topic for the Knowledge Forum, post the question and lead the discussion of the assigned readings for that week. For this purpose, you will choose which week you would like to be a "chapter leaders." The chapter leaders will work together, please make sure that you are in communication with your leader peer(s) during the preparation of your "leader" session. You may want to meet with your leader peer(s) several times before the class meeting.

Knowledge Forum Responses (KFR) to others' postings. You will respond to two different Knowledge Forum postings from the week before. Your response should indicate that you have read the individual's KF and the attached resource to the post and that you have addressed important points made in the resource.

Substantial Posts – Note: the word "substantial" refers to posts indicating thought-provoking responses that (a) either generate a new idea or evaluate an idea expressed in the reading or in another student's initial post; and (b) embeds or uses information from the required reading. "Off-the-top" responses without substance will receive no credit. Total points are awarded as follows: (20-18 = Substantial; 17-16 = Approaching Substantial; 15-13 = Few substantial comments; 12-10 = Superficial post).
Book Study

Working in small groups, students will select a chapter from the course textbook, *Leadership for Social Justice* and present that chapter to the class. Groups will be determined by mutual consent of Dr. Laub and the students. The presentation must be narrated, and presented in an electronic format (PowerPoint, Prezi, etc.) and address the following:

- What are the main points of the chapter?
- What are the implications for education and curriculum leaders?
- What is the relevant research on the topic?
- Reflection and questions?
- Be specific and stay on point – minimum of 15 slides, maximum of 30 slides

Record of Study:

Students will read a completed Record of Study and develop specific questions, related to that Record of Study. Questions will be determined by mutual consent of Dr. Laub and the students. A collaborative Blackboard session will be conducted, where the students will interact with the author of the Record of Study and Dr. Laub.

Problem of Practice Paper:

Using the concepts explored throughout this course, students will analyze state data sources to identify and describe educational problem(s) or deficiencies that curriculum leaders could face in a specific school district, and prepare a 10 – 15 page paper, addressing possible solutions to that problem(s). Library research will be required to supplement data sources. The paper must follow APA guidelines, 12 pt. font, double spaced and address the following:

- What are the problem(s) and/or deficiencies?
- How were data sources collected and analyzed?
- What specific policies were addressed?
- What are the implications for that district?
- What type(s) of problem solving models/protocol will be used?
- What potential solutions should be developed to address the problem/deficiency?
- Identify a possible ways to evaluate the proposed solutions.
- How would you implement any changes on your campus/district?
- Annotated bibliography
- Literature Review

Your literature review should be at least four pages, and include previous work on the research problem(s) you are interested in. The literature review is supposed to make you start thinking about your topic. It should not be just synopsis of existing work – you should also raise questions based on the work, e.g. possible extensions, counterarguments, etc. This review is practice in both summarizing and critiquing research work in print.

Comprehensive Final Exam:

Students will complete a comprehensive final exam, consisting of open-ended questions, focusing on all concepts and materials covered in class. The exam will be similar to the preliminary exam you will take at the end of your doctoral coursework, prior to advancing into the Record of Study phase. Answers must include cited references/sources and follow APA guidelines. Writing mechanics, grammar and scholarship will be a major part of the grading rubric.
Grading

Collaboration is encouraged; you will not be forced into some type of distribution, normal or otherwise. The grade is based upon (a) participation in class assignments, (b) book study, (c) final exam, and (d) a summative learning product. Collaboration is encouraged; you will not be forced into some type of distribution, normal or otherwise.

<table>
<thead>
<tr>
<th>Category</th>
<th>Specifics</th>
<th>Total Points for that Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record of Study Discussion</td>
<td>Participation in collaborative discussion with recent ROS</td>
<td>100</td>
</tr>
<tr>
<td>Community Learning Knowledge Forum</td>
<td>Contributions to Knowledge Forum Entries (KF) and Knowledge Forum Responses (KFR)</td>
<td>200</td>
</tr>
<tr>
<td>Problem of Practice Paper</td>
<td>10 – 15 page, APA style, including literature review and annotated bibliography</td>
<td>300</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Comprehensive Final Exam covering all materials presented in class</td>
<td>300</td>
</tr>
<tr>
<td>Book Study</td>
<td>Multi-media presentation of book</td>
<td>100</td>
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Grade Distribution
900 -1000 pts. A
800 - 899 pts. B
700 - 799 pts. C
600 - 699 pts. D
<600 pts. F
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<tr>
<th>Week</th>
<th>Topics</th>
<th>Resources</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introductory Post</td>
<td>Ch. 1 – Creswell</td>
<td>CA; obtain textbooks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ch. 1 – Lukenchuk</td>
<td>CA, KF, KFR</td>
</tr>
<tr>
<td>Week 2</td>
<td>Selecting a research approach; frameworks of problem solving; educational inquiry and historical development; socio cultural issues</td>
<td>Ch. 2 – Creswell</td>
<td>CA, KF, KFR</td>
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<td>Ch. 2 – Lukenchuk</td>
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<tr>
<td>Week 3</td>
<td>Review of the literature; epistemology perspectives and controversy; the role of research affecting policy</td>
<td>Ch. 3 – Creswell</td>
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<td>Ch. 3 – Lukenchuk</td>
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<tr>
<td>Week 4</td>
<td>The use of theory; the role of the researcher, paradigms and educational research; asking the right questions, finding answers</td>
<td>Ch. 4 – Creswell</td>
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<td></td>
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<td>Ch. 4 – Lukenchuk</td>
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<tr>
<td>Week 5</td>
<td>Writing strategies; education research: paradigms and perspectives; ethical and socio cultural considerations</td>
<td>Ch. 5 – Creswell</td>
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<td>Ch. 5 – Lukenchuk</td>
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<td>Week 6</td>
<td>Writing an abstract; the research problem and problem-based research; deficiencies in the literature</td>
<td>Ch. 6 – Creswell</td>
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<tr>
<td>Week 7</td>
<td>Purpose statements in qualitative, quantitative and mixed methods research; hermeneutics and reframing conceptions</td>
<td>Ch. 7 – Creswell</td>
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<td>Ch. 7 – Lukenchuk</td>
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<tr>
<td>Week 8</td>
<td>Research questions and hypothesis; causal, process, and cost questions</td>
<td>Ch. 8 – Creswell</td>
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<td>Ch. 8 – Lukenchuk</td>
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<td>Week 9</td>
<td>Break Week</td>
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<td>Ch. 9 – Lukenchuk</td>
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<tr>
<td>Week 10</td>
<td>Quantitative research procedures; stakeholder involvement; structuring and defining the process</td>
<td>Ch. 10 – Creswell</td>
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<td>Ch. 10 – Lukenchuk</td>
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<tr>
<td>Week 11</td>
<td>Qualitative research procedures; creativity &amp; managing change, cost benefit analysis and alternatives</td>
<td>Ch. 11 – Creswell</td>
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<td>Ch. 11 – Lukenchuk</td>
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<tr>
<td>Week 12</td>
<td>Mixed methods research procedures; content &amp; change methodology; effectiveness and making recommendations</td>
<td>Ch. 12 – Creswell</td>
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<td></td>
<td></td>
<td>Ch. 12 – Lukenchuk</td>
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<tr>
<td>Week 13</td>
<td>Review of course materials, ROS discussion</td>
<td>Ch. 13 – Creswell</td>
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<td>Ch. 13 – Lukenchuk</td>
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<tr>
<td>Week 14</td>
<td>Problems of Practice Research Week; Analysis, application, implementation and monitoring</td>
<td>Ch. 14 – Creswell</td>
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<td>Week 15</td>
<td>Problems of Practice Due &amp; Final Exam</td>
<td>Ch. 15 – Creswell</td>
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</table>

**Aggie Honor Code**

"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: www.aggiehonor.tamu.edu
Attendance

You are required to log into the website at least twice a week. It is very important that you do not miss posting any of your discussions, because your peers are responsible for reading them and posting their comments within the next 48 hours. If your discussion is not posted in a given day by 11 am, there is no other way that your peers can read it on time and post their comments. I do understand that sometimes it is not possible to avoid emergency issues or any undesired circumstances that may lead you to miss a class assignment. Only university-excused absences with required documentation will allow you to make up missed work. Refer to http://student-rules.tamu.edu/rule07 for details on excused absences.

Americans with Disabilities Act

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.

Diversity Statement for the Department of Teaching, Learning, and Culture:
The Department of Teaching, Learning, and Culture (TLAC) does not tolerate discrimination, violence, or vandalism. TLAC is an open and affirming department for people, including those who are subjected to racial profiling, hate crimes, heterosexism, and violence. We insist that appropriate action be taken against those who perpetuate discrimination, violence, or vandalism. Texas A&M University is dedicated to non-discrimination on the basis of race, color, religion, gender, age, sexual orientation, domestic partner status, national origin, or disability in employment, programs, and services. Our commitment to non-discrimination embraces the entire university community including faculty, staff, and students.

TLAC Statement

The Department of Teaching, Learning and culture does not tolerate discrimination, violence, or vandalism. TLAC is an open and affirming department for all people, including those who are subjected to racial profiling, hate crimes, heterosexism, and violence, and vandalism. Texas A&M University is an Affirmative Action and Equal Opportunity institution and affirms its dedication to non-discrimination on the basis of race, color, religion, gender, age, sexual orientation, domestic partner status, national origin, or disability in employment, programs, and services. Our commitment to non-discrimination and affirmative action embraces the entire university community including faculty, staff, and students.

ONLINE COURSE EVALUATION SURVEYS are required (both mid-term & final)
https://pica.tamu.edu Look for announcements on e-Campus. You will receive notifications by email.

Instructional Technology Services
004C Heldenfels Hall • Texas A&M University • 3002 TAMU
(979) 862-3977 • its@tamu.edu • http://itsinfo.tamu.edu
Bibliography


Boykin, A., & Noguera, P. (2011). *Creating the opportunity to learn moving from research to practice to close the achievement gap*. Alexandria, VA: ASCD.


Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions:
1. Course request type:  □ Undergraduate  □ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):  Department of Finance
3. Course prefix, number and complete title of course:  FINC 601 Financial Analysis Practicum
4. Catalog course description (not to exceed 50 words):  Application of finance theory to careers in finance; development of practical skills for finance professionals, including proficiency with industry-standard software, databases, and analytic products; operational, legal, and ethical aspects of the financial industry; financial career planning.

5. Prerequisite(s):  Enrollment limited to FINC classification 7 students only
Cross-listed with:  Stacked with:  
Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?  □ Yes  □ No  If yes, from ________ to ________
7. Is this a repeatable course?  □ Yes  □ No  If yes, this course may be taken ________ times.
Will this course be repeated within the same semester?  □ Yes  □ No
8. Will this course be submitted to the Core Curriculum Council?  □ Yes  □ No
9. How will this course be graded?  □ Grade  □ S/U  □ P/F (CLMD)
10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      M.S. Finance
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-control-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    FINC  601  FINANCIAL ANALYSIS PRACTICUM

<table>
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<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FCE Code</th>
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<td>15 - 16</td>
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</table>

Approval recommended by:

R.T. Dye
Department Head or Program Chair (Type Name & Sign) Date

M.L. McAnally
Chair, College Review Committee Date

Bala Shek
Dean of College Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services — 07/14
Class Meets:  
Module I: Daily, August 10 -28, 2015  
Module II: Fall 2015, once per week  
Module III: Spring 2016, once per week  

Class Website: eCampus  
Email: kmoore@mays.tamu.edu  
Office: WCBA 341 C  

Instructor: Kevin M. Moore, CFA, CMT  
Office Hours: TBD  
Phone: 832-415-7000 (Mobile)  

Course Description and Objectives  
The Financial Analysis Practicum will bridge the theoretical aspects of finance presented in other courses to the practical aspects of applying them and to having a successful career in the finance field. The practicum will be broken down into three modules.

Module I – Core Practical Skills for the Finance Professional  
Module II – Applied Financial Analysis  
Module III – Financial Analysis Exercise  

Learning Outcomes  
- Module I – Core Practical Skills for the Finance Professional (some module I assignments will be given prior to student matriculation and will be due no later than the first day of module I)  
  - Bloomberg Certification  
  - Medium Proficiency in Excel and PowerPoint  
  - An introduction to the R, Python and SQL computer languages  
  - Effectively give a oral presentation from a PowerPoint deck  
  - Familiarity with significant current and historical financial firms and leaders  
  - Familiarity with best practices for lifelong finance career planning including resume and interview skills  
  - A basic understanding of the role and construct of the firm in the world Economy  
  - A basic understanding of the role and operations of finance and financial firms in the US Economy  
  - A review of the basic of statistics, economics, finance and accounting  
  - An understanding of key legal and ethical considerations for financial professionals  

- Module II – Applied Financial Analysis  
  - The application of fundamental financial analysis to real world companies  
  - The application of technical financial analysis to real world companies  
  - The application of quantitative financial analysis to real world companies  

- Module III – Financial Analysis Exercise  
  - The integration of modules I and II along with other student into a practical exercise using real world companies that demonstrates the student’s ability to apply their MSF degree in either a corporate finance, commercial/investment banking or investment management role.  
  - Students will individually provide analysis and coverage of either the equity or fixed income securities of a publicly traded company using fundamental, quantitative or fundamental analysis skills.  

Prerequisites  
Enrollment limited to MS-FINC students only.
Required Material
- Materials provided by the professor
- A Bloomberg login (free)
- Temporary access to history/biography books from the reading list
- Daily access to the Wall Street Journal.
  - This handbook provides an excellent introduction to the ethical issues that arise in trading and investment management.
- CFA Institute Financial NewsBrief. This free resource provides a daily email that briefs important current financial news stories and provides links to the primary sources. Sign up at www.smartbrief.com/cfa. You should read it every day.

Suggested Material
- Investor's Business Daily (www.investors.com)

Optional Material
- Students are encouraged to seek out additional resources to enhance their understanding of market microstructure.

Discussion Questions
Following the required reading for each chapter (with the exceptions of Chapters 1, 2, 28, and 29), students are required to write a one page, double-spaced response to one of the three discussion questions provided for each chapter (located in eCampus). These write ups should include your response to the question, any relevant graphs/tables/charts (which do not count for page count), and must relate the answer to a real world event, past or present.

Interactive Case Studies
Starting Thursday, October 23, students will participate in live interactive case studies every Thursday for five weeks. These case studies will be run on an interactive market module during class, with the objective of giving students a hands on activity to further their understanding of market microstructure. More information on these case studies will be provided as the class progresses.

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

The Aggie Honor Code affirms that honesty, truthfulness, trust, fairness, respect, moral conduct, and individual responsibility guide the conduct of the Texas A&M community. Commitment to these ideals produces in each of us integrity, which fosters the will to make difficult choices, to accept responsibility for and consequences of our actions, even at great personal cost.

It is the responsibility of both students and instructors to maintain academic integrity by refusing to participate in or tolerate academic misconduct. Committing any of the following acts constitutes academic dishonesty. This list is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty.

Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids, or other devices or materials in any academic exercise.
Complicity: Intentionally or knowingly helping (or attempting to help) another to commit an act of academic dishonesty.
Plagiarism: Failing to give appropriate credit for or presenting as your own another person's words, ideas, results, or processes.
Multiple Submission: Submitting substantial portions of the same work (including oral reports) for credit more than
once without authorization from the second instructor.

Falsification: Changing or omitting data or results, or manipulating research materials, equipment, or processes such that the research is not accurately represented in the research record.

Fabrication: Recording or reporting made up data or results, or submitting fabricated documents.

I will proactively promote academic integrity and adhere to the Aggie Honor System Office’s policies pertaining to reporting an adjudication of violations of the Aggie Honor Code. For detailed definitions of academic misconduct and complete Honor Council Rules and Procedures, please visit http://aggiehonor.tamu.edu/.

Classroom Care
We have beautiful, state-of-the-art classrooms in the Wehner Building. We want to maintain the high quality conditions of these classrooms for students in future years. Thus it is necessary for you to adhere to the established policy of no beverages, food, or tobacco products or animals (unless approved) in WCBA classrooms. Please do not leave trash in the room. If you bring newspapers, etc., to class, either carry them out again or put them in the trash containers. Thank you for observing this policy.

Attendance
I expect you to attend class regularly, in accordance with university policy. I will routinely check attendance. You will be held responsible for any assignments, material covered, amendments to the syllabus, or announcements made in class, whether you are present or not.

If you miss an exam without a valid, documented university excuse, you will receive a grade of zero on that exam. According to university policy, there are exactly ten types of excused absences. These are listed in Texas A&M University Regulations and on the TAMU website at http://student-rules.tamu.edu/rule07.

It is noteworthy that job interviews are not considered excused absences. It’s never too soon to begin practicing managing your calendar in a professional manner. Arrange your job interviews and any necessary travel on dates other than those on which class meets. Please plan unexcused absences around the following exam dates:

- **Midterm Exam:** Tuesday, October 21 (in class)
- **Final Exam:** Wednesday, December 17 (1:00 PM – 3:00 PM)

Makeup Policy
You can make up an exam only if an absence is excused. To be considered excused, you must notify me in writing (acknowledged e-mail message is acceptable) prior to the date of absence, and provide appropriate documentation for the absence. In cases where advance notification is not feasible (for example, accident or emergency) you must provide notification by the end of the second working day after the absence, including an explanation of why notice could not be sent prior to the class. The fact that these are university-excused absences does not relieve you of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence. Falsification of documentation is a violation of the Honor Code.

Grading
Course grades will follow the standard 90/80/70/60 scale as a minimum. However, a curve may be applied to the total point score at the end of the semester.

<table>
<thead>
<tr>
<th>Points Collected (PC)</th>
<th>Course Grade</th>
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<tbody>
<tr>
<td>PC ≥ 90</td>
<td>A</td>
</tr>
<tr>
<td>90 &gt; PC ≥ 80</td>
<td>B</td>
</tr>
<tr>
<td>80 &gt; PC ≥ 70</td>
<td>C</td>
</tr>
<tr>
<td>70 &gt; PC ≥ 60</td>
<td>D</td>
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<tr>
<td>60 &gt; PC</td>
<td>F</td>
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Course grades will be determined as follows:

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<tr>
<th>Item</th>
<th>Max Points</th>
<th>Graded Components</th>
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<tr>
<td>Module I</td>
<td>50</td>
<td>Attendance/Participation (10%), 3 Composite Exams (30% Each)</td>
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<tr>
<td>Module II</td>
<td>35</td>
<td>Attendance/Participation (10%), Speaker questions/reports (20%), Exercises (20%), Final Exercise/Presentation (50%)</td>
</tr>
<tr>
<td>Module III</td>
<td>15</td>
<td>Attendance/Participation (10%), Coverage Initiation Report (50%), Update Reports (40%)</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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</tbody>
</table>

The Finance Department expects grades to accurately reflect the University’s published grading system: Excellent = A, Good = B, Satisfactory = C, Passing = D, and Failing = F. To implement this philosophy and to promote a culture of excellence among finance majors, the department has adopted a target overall GPA of 3.20-3.50 for FINC 601.

Graded assignments must be turned in before the deadline to be eligible for full credit. Late assignments are subject to the following penalties:

<table>
<thead>
<tr>
<th>If the assignment is submitted...</th>
<th>Penalty</th>
<th>Maximum Possible Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>On/before deadline</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Up to one week after deadline</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Beyond 1 Week</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Even if you have a documented excused absence, please arrange to submit your assignment by its due date unless an emergency situation makes this impossible. Late assignments accompanied by a documented university excuse will not be subject to penalty.

When any graded work is returned to you, you have one week from the date it is returned to bring any grading errors to the instructor’s attention. After the one-week deadline has passed, no further grade changes will be made for that particular item. The purpose of this deadline is not to discourage grade changes due to errors, but to ensure that any necessary ones are promptly made.

**ADA Policy Statement**

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

**Module I – Core Practical Skills for the Finance Professional (Daily 2.5 Hour Morning/Evening Class Blocks)**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Morn</td>
<td>8/10 - Mon</td>
<td>Program Orientation</td>
</tr>
<tr>
<td>1 – Afternoon</td>
<td>8/10 - Mon</td>
<td>Income/Outcome Business Simulation – Entrepreneurial Challenge</td>
</tr>
<tr>
<td>2 – Morn</td>
<td>8/11 - Tue</td>
<td>Career Preparation I – Overview of Finance Careers</td>
</tr>
<tr>
<td>2 – Afternoon</td>
<td>8/11 - Tue</td>
<td>Career Preparation 2</td>
</tr>
<tr>
<td>3 – Morn</td>
<td>8/12 - Wed</td>
<td>Career Preparation 3</td>
</tr>
<tr>
<td>3 – Afternoon</td>
<td>8/12 - Wed</td>
<td>Career Preparation 4</td>
</tr>
<tr>
<td>4 – Morn</td>
<td>8/13 - Thu</td>
<td>Ethics</td>
</tr>
<tr>
<td>4 – Afternoon</td>
<td>8/13 - Thu</td>
<td>Communications Skills 1</td>
</tr>
<tr>
<td>5 – Morn</td>
<td>8/14 - Fri</td>
<td>Communications Skills 2 – Presentation for Grade</td>
</tr>
<tr>
<td>5 – Afternoon</td>
<td>8/14 - Fri</td>
<td>Networking</td>
</tr>
<tr>
<td>6 – Morn</td>
<td>8/17 - Mon</td>
<td>Computer Skills I</td>
</tr>
<tr>
<td>6 – Afternoon</td>
<td>8/17 - Mon</td>
<td>Computer Skills Lab</td>
</tr>
<tr>
<td>7 – Morn</td>
<td>8/18 - Tue</td>
<td>Computer Skills 2</td>
</tr>
<tr>
<td>7 – Afternoon</td>
<td>8/18 - Tue</td>
<td>Computer Skills Lab</td>
</tr>
<tr>
<td>8 – Morn</td>
<td>8/19 - Wed</td>
<td>Computer Skills 3</td>
</tr>
<tr>
<td>8 – Afternoon</td>
<td>8/19 - Wed</td>
<td>Computer Skills Lab</td>
</tr>
<tr>
<td>9 – Morn</td>
<td>8/20 - Thu</td>
<td>Recent History of Finance 1</td>
</tr>
<tr>
<td>9 – Afternoon</td>
<td>8/20 - Thu</td>
<td>Recent History of Finance 2</td>
</tr>
<tr>
<td>10 – Morn</td>
<td>8/21 - Fri</td>
<td>Composite Exam – Computer Skills, History of Finance</td>
</tr>
<tr>
<td>10 – Afternoon</td>
<td>8/21 - Fri</td>
<td>Networking</td>
</tr>
<tr>
<td>11 – Morn</td>
<td>8/24 - Mon</td>
<td>Intro Econ 1</td>
</tr>
<tr>
<td>11 – Afternoon</td>
<td>8/24 - Mon</td>
<td>Intro Accounting 1</td>
</tr>
<tr>
<td>12 – Morn</td>
<td>8/25 - Tue</td>
<td>Finance 1</td>
</tr>
<tr>
<td>12 – Afternoon</td>
<td>8/25 - Tue</td>
<td>Econ 2</td>
</tr>
<tr>
<td>13 – Morn</td>
<td>8/26 - Wed</td>
<td>Accounting 2</td>
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<td>13 – Afternoon</td>
<td>8/26 - Wed</td>
<td>Finance 2</td>
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<tr>
<td>14 – Morn</td>
<td>8/27 - Thu</td>
<td>Accounting 3</td>
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<td>8/27 - Thu</td>
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<tr>
<td>15 – Morn</td>
<td>8/28-Fri</td>
<td>Composite Exam – Econ, Finance, Accounting</td>
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<tr>
<td>15 – Afternoon</td>
<td>8/28-Fri</td>
<td>Networking</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
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</tr>
<tr>
<td>1</td>
<td>TBD</td>
<td>Intro To Financial Analysis</td>
</tr>
<tr>
<td>2</td>
<td>TBD</td>
<td>Financial Analysis Guest Speaker – Questions Due Before Class; Summary Due Afterwards</td>
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<tr>
<td>3</td>
<td>TBD</td>
<td>Financial Analysis Exercise</td>
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<tr>
<td>4</td>
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<td>Intro to Fundamental Analysis</td>
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<td>5</td>
<td>TBD</td>
<td>Fundamental Analysis Guest Speaker—Questions Due Before Class; Summary Due Afterwards</td>
</tr>
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<td>6</td>
<td>TBD</td>
<td>Fundamental Analysis Exercise</td>
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<td>7</td>
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<td>Intro to Quantitative Analysis</td>
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<td>Quantitative Analysis Guest Speaker—Questions Due Before Class; Summary Due Afterwards</td>
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<td>Intro to Technical Analysis</td>
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<td>Technical Analysis Guest Speaker—Questions Due Before Class; Summary Due Afterwards</td>
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<td>TBD</td>
<td>Technical Analysis Exercise</td>
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<td>13</td>
<td>TBD</td>
<td>Introduction to Financial Analysis Exercise</td>
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<tr>
<td>14</td>
<td>TBD</td>
<td>Student Final Reports and Presentations – Assignment of roles for Financial Analysis Exercise</td>
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## Module III – Financial Analysis Exercise (Sprng 2016 - Meets once/week for 2.5 Hours)

<table>
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<tr>
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<tbody>
<tr>
<td>1</td>
<td>TBD</td>
<td>Project Introduction</td>
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</tbody>
</table>
| 2    | TBD  | Developing Models for Financial Analysis  
     |      | Interviewing Management |
| 3    | TBD  | Written/Oral Reports for Financial Analysts |
| 4    | TBD  | Coverage Initiation Presentation Due/Critiques |
| 5    | TBD  | Coverage Initiation Reports Due/Critiques |
| 6    | TBD  | Weekly Coverage Updates/Critiques |
| 7    | TBD  | Weekly Coverage Updates/Critiques |
| 8    | TBD  | Weekly Coverage Updates/Critiques |
| 9    | TBD  | Weekly Coverage Updates/Critiques |
| 10   | TBD  | Weekly Coverage Updates/Critiques |
| 11   | TBD  | Weekly Coverage Updates/Critiques |
| 12   | TBD  | Weekly Coverage Updates/Critiques |
| 13   | TBD  | Weekly Coverage Updates/Critiques |
| 14   | TBD  | Lessons Learned Reports/Presentations |
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

1. Course request type: □ Undergraduate  ☑ Graduate  □ First Professional (EDE, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name): Department of Finance

3. Course prefix, number and complete title of course: FINC 602 Corporate Finance

4. Catalog course description (not to exceed 50 words): Theoretical development of principles of corporate financial management; application of principles to problems faced by financial officers, such as capital budgeting, cost of capital, capital structure, dividend policy, financial distress, and corporate valuation.

5. Prerequisite(s): Enrollments limited to MS-FINC students only.

Cross-listed with: NA  Stacked with: NA

Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course? □ Yes  ☑ No  If yes, from _____ to _____

7. Is this a repeatable course? □ Yes  ☑ No  If yes, this course may be taken _____ times.

Will this course be repeated within the same semester? □ Yes  ☑ No

8. Will this course be submitted to the Core Curriculum Council? □ Yes  ☑ No

9. How will this course be graded: ☑ Grade  □ S/U  □ P/F (CLMD)

10. This course will be:
    a. □ required for students enrolled in the following degree program(s) (e.g., B.A. in history)
       M.S. in finance
    b. ☑ an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. ☑ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    FINC  602  CORPORATE FINANCE

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<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
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<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>EFL Code</th>
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<td>1110</td>
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<td>16</td>
</tr>
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</table>

Approval recommended by:

R. T. Doe  M.L. McAnally
Department Head or Program Chair (Type Name & Sign)  Chair, College Review Committee
Date  Nov. 24/14

Department Head or Program Chair (Type Name & Sign)
(if cross-listed course)

Bala Sivan
Dean of College
Date  11/24

Submitted to Coordinating Board by:

Chair, GC or UCC
Date  Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
Instructor: TBD  
Email: TBD  
Phone Number: TBD  
Office location: TBD  
Office hours: TBD  

Class Website: [http://ecampus.tamu.edu](http://ecampus.tamu.edu)  
Graduate Assistant: TBD  
Email: TBD  
Office location: TBD  
Office hours: TBD

**Prerequisites**  
Enrollment limited to MS-FINC students only.

**Course Description and Objectives**  
This course will focus on both the *theoretical* development of corporate finance concepts and their *application* to real-world problems. Corporate finance deals with decision-making within the firm. We will try to approach problems and concepts from the perspective of a financial manager. We will also take a step back and analyze financial managers. Students should begin to think about investing and financing problems faced by the firm. The main objective of this course is to introduce students to the principles of corporate valuation.

**Learning Outcomes**  
After completing this course, students will be able to demonstrate a strong conceptual grasp of corporate financing decisions and cost of capital in credit and equity markets. Students will be able to perform corporate or project valuation. Valuation involves estimating financial cash flows spread over time, determining appropriate discount rates that are used to compute the present values of the cash flows, and employing different methods to compute the present values of the cash flows. Students will also be able to perform cost-benefit analyses of project cash flows in order to make value enhancing decisions for a firm.

**Textbook**  

**Instructor Availability**  
The graduate assistants and I will be available in our offices during the hours provided above. If, for some reason, we should be unavailable during that time, we will make every effort to notify you in advance. The purpose of office hours is to further clarify material covered in class and not to re-teach material covered in class. Students are expected to make an attempt to understand the material outside of class before coming for help.

**Exams**  
1) There will be 2 exams this semester. The material in this course is largely comprehensive in nature; however, all questions will be phrased in the context of the material covered in the section preceding the exam. Questions will be mainly quantitative in nature and may consist of multiple choice, essay, and/or problems to work out. The exams are designed to improve your creative and critical thinking skills and apply the knowledge you gain from the course. Please bring No.2 pencils and erasers to all exams. You will be allowed to use a formula sheet during the exams. It will benefit you to show your
work neatly and clearly since you can get partial credit for problems if your solution is correct for the most part but a zero if your solution has non-trivial errors or sufficient work is not demonstrated.

2) Reviewing exams – Class time will only be used to review exam questions missed by a large number of students. Students will have access to exam grades on the class website. I may hang out graded exams with a key in class for individual review to be returned at the end of the class period. In any event, you may make an appointment with me if you would like to review your exam. Please review your exams during the week immediately following its administration.

3) Grading errors – If you believe that any of your work is graded or recorded incorrectly, you may submit a written request (email is okay) for review within one week of the time the graded work is returned in class. Any request that is turned in after this time limit will not be considered. You will be notified when the response to your request is available.

**Online Homework Assignments**
You will be given online homework assignments periodically. Each assignment will consist of conceptual or problem type questions. There will be no time limit on the assignments; however, assignments should be submitted by the due date of each assignment. Five points per day will be deducted from late submissions. Please make sure you register for MyFinanceLab on the Publisher’s website ([http://www.pearsonmylabandmastering.com](http://www.pearsonmylabandmastering.com)) in the first two weeks of the semester so that you don’t miss any of the assignments.

**Grading**

<p>| | |</p>
<table>
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<tr>
<th></th>
<th></th>
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<tr>
<td>HW Assignments</td>
<td>40%</td>
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<tr>
<td>Midterm</td>
<td>25%</td>
</tr>
<tr>
<td>Final</td>
<td>35%</td>
</tr>
</tbody>
</table>

Final course grades will be assigned as follows, based on the weighted number of points earned as a percentage of total points possible:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% or above</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89%</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79%</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69%</td>
</tr>
<tr>
<td>F</td>
<td>less than 60%</td>
</tr>
</tbody>
</table>

There will be no extra credit work available to improve your final grade. Grades will not be negotiated at the end of the semester. Final grades will be changed only in the event of a calculation error on my part.

**Attendance Policies**
TAMU policy for attendance is given in Student Rule 7 ([http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)). Class attendance will not be taken, but it’s still essential. Due to the cumulative nature of the course material you will not be able to successfully complete this course without regular attendance. Please study the assigned material before class. A basic familiarity with the lecture topic will greatly assist your comprehension of the material. Lectures might go beyond the scope of the textbook for certain topics, so it is important that you attend classes. **You are also responsible for all announcements made in class; check with a classmate if you should be absent.**
If you miss an exam without a valid, documented university excuse, you will receive a grade of zero on that exam. According to university policy, there are exactly ten types of excused absences. These are listed in Texas A&M Student Rules at http://student-rules.tamu.edu/rule07:

7.1.1 Participation in an activity appearing on the university authorized activity list. (See List of Authorized and Sponsored Activities)

7.1.2 Death or major illness in a student's immediate family. Immediate family may include: mother, father, sister, brother, grandparents, spouse, child, spouse's child, spouse's parents, spouse's grandparents, stepmother, step-father, step-sister, step-brother, step-grandparents, grandchild, step-grandchild, legal guardian, and others as deemed appropriate by faculty member or student's academic Dean or designee.

7.1.3 Illness of a dependent family member.

7.1.4 Participation in legal proceedings or administrative procedures that require a student's presence.

7.1.5 Religious holy day. (See Appendix IV.)

7.1.6 Injury or Illness that is too severe or contagious for the student to attend class.

7.1.6.1 Injury or illness of three or more days. For injury or illness that requires a student to be absent from classes for three or more business days (to include classes on Saturday), the student should obtain a medical confirmation note from his or her medical provider. The Student Health Center or an off-campus medical professional can provide a medical confirmation note only if medical professionals are involved in the medical care of the student. The medical confirmation note must contain the date and time of the illness and medical professional's confirmation of needed absence.

7.1.6.2 Injury or illness less than three days. Faculty members may require confirmation of student injury or illness that is serious enough for a student to be absent from class for a period less than three business days (to include classes on Saturday). At the discretion of the faculty member and/or academic department standard, as outlined in the course syllabus, illness confirmation may be obtained by one or both of the following methods:
   b. Confirmation of visit to a health care professional affirming date and time of visit.

7.1.6.3 An absence for a non acute medical service does not constitute an excused absence.

7.1.7 Required participation in military duties.

7.1.8 Mandatory admission interviews for professional or graduate school which cannot be rescheduled.

7.1.9 Mandatory participation as a student-athlete in NCAA-sanctioned competition.

7.1.10 In accordance with Title IX of the Educational Amendments of 1972, Texas A&M University shall treat pregnancy (childbirth, false pregnancy, termination of pregnancy and recovery therefrom) and
related conditions as a justification for an excused absence for so long a period of time as is deemed medically necessary by the student’s physician. Requests for excused absence related to pregnancy should be directed to the instructor; questions about Title IX should be directed to the University Title IX Coordinator.

Cell phones, pagers and other electronic devices must be turned off (or put to silent mode) during the class. Laptops may not be used for any purpose except note taking during the class. Repeated interruption from these items will run the risk of dismissing the student from the class. If you are late arriving to class, please make every effort to minimize disruption to other students.

Makeup Policy
You can make up an exam only if an absence is excused. To be considered excused, you must notify me in writing (acknowledged e-mail message is acceptable) prior to the date of absence, and provide appropriate documentation for the absence. In cases where advance notification is not feasible (for example, accident or emergency) you must provide notification by the end of the second working day after the absence, including an explanation of why notice could not be sent prior to the class. The fact that these are university-excused absences does not relieve you of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence. Falsification of documentation is a violation of the Honor Code.

Keys to Success
1) Class participation—I expect students to take an active role in discussions. Reading material prior to the date it is covered in class may be helpful. This will both facilitate your learning and aid in preparation for exams. Please ask questions as the extent of your knowledge greatly depends on your curiosity, inquiry, and need for clarification.
2) Working problems outside of class—I will work a few problems in class and will recommend numerous others for you to work on your own. These problems are not required, but working them will greatly improve your chances of performing well on exams.

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

Academic Integrity Statement and Policy

Aggie Honor Code

"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. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information, please visit http://aggiehonor.tamu.edu.
Mays Food & Beverage Policy
We have beautiful and state-of-the-art classrooms in the Wehner Building and Cox Hall. We want to maintain the high quality of these classrooms for the students in future years. Thus, it is necessary for you to adhere to the established policy of no beverages, food, tobacco products, or animals (unless approved) within the classrooms. Bottled water is permitted. Your assistance is greatly appreciated.

Course Outline:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Textbook Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>Chapter 1-3</td>
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<tr>
<td>2</td>
<td>Time Value of Money and Interest Rates</td>
<td>Chapter 4-5</td>
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<tr>
<td>3</td>
<td>Valuing Bonds</td>
<td>Chapter 6</td>
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<td>4</td>
<td>Investment Decision Rules</td>
<td>Chapter 7</td>
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<td>5</td>
<td>Fundamentals of Capital Budgeting</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>6</td>
<td>Valuing Stocks</td>
<td>Chapter 9</td>
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<tr>
<td>7</td>
<td>Midterm Exam</td>
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<td>8</td>
<td>Pricing of Risk and Optimal Portfolio Choice</td>
<td>Chapter 10-11</td>
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<tr>
<td>9</td>
<td>Estimating the Cost of Capital</td>
<td>Chapter 12</td>
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<td>10</td>
<td>Market Efficiency</td>
<td>Chapter 13</td>
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<td>11</td>
<td>Capital Structure</td>
<td>Chapter 14-15</td>
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<td>12</td>
<td>Financial Distress and Information</td>
<td>Chapter 16</td>
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<td>13</td>
<td>Valuation with Leverage</td>
<td>Chapter 17</td>
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<td>14</td>
<td>Valuation and Financial Modeling: A case study</td>
<td>Chapter 18</td>
</tr>
<tr>
<td>15</td>
<td>Final Exam</td>
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Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus. *

Form Instructions:
1. Course request type: [ ] Undergraduate [x] Graduate [ ] First Professional(DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Finance
3. Course prefix, number and complete title of course: FINC 603 Investments
4. Catalog course description (not to exceed 50 words): Theoretical development and application of principles of investment management; topics include measuring risk aversion, portfolio optimization, factor models, asset pricing models, bond pricing, term structure of interest rates, bond portfolio management, and equity valuation.

5. Prerequisite(s): Enrollment limited to MS-FINC students only or by approval of Department Head
Cross-listed with: NA Stacked with: NA
[ ] Cross-listed course requires the signature of both department heads.

6. Is this a variable credit course? [ ] Yes [x] No
If yes, from ________ to ________

7. Is this a repeatable course? [ ] Yes [x] No
If yes, this course may be taken ________ times.

8. Will this course be repeated within the same semester? [ ] Yes [x] No

9. Will this course be submitted to the Core Curriculum Council? [ ] Yes [x] No

10. How will this course be graded: [ ] Grade [ ] S/U [ ] P/F (CLMD)

11. This course will be:
a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
M.S. in finance
b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

12. [x] I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix Course # Title (excluding punctuation)
FINC 603 INVESTMENTS

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Approval recommended by:

R. T. Dye [x] M.L. McAnally [x]
Department Head or Program Chair (Type Name & Sign) Date Nov. 24/14
Chair, College Review Committee Date

Department Head or Program Chair (Type Name & Sign) Date
(if cross-listed course)
Dean of College Date

Submitted to Coordinating Board by:

[ ] Chair, GC or UCC Date
[ ] Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
Prerequisites
Enrollment limited to MS-FINC students only or approval by the Department Head.

Course Description and Objective
FINC 603 is open only to students in the Master of Finance program. This course provides a rigorous overview of essential concepts. Students who successfully complete this course will have a strong analytical foundation for more advanced material. The primary topics covered in Finance 603 include theories of portfolio formation and how securities ought to be priced in well-functioning markets. Students enrolled in Finance 603 must have very strong quantitative and statistical aptitude. You also should be quite comfortable with computer applications, especially Excel.

Required Material
- You will need a financial calculator to solve bond pricing problems in this course. Students will not be allowed to share a calculator during exams.

Suggested Material
You are expected to read, on a daily basis, the Wall Street Journal or the financial section of a major newspaper.

Optional Material

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

The Aggie Honor Code affirms that honesty, truthfulness, trust, fairness, respect, moral conduct, and individual responsibility guide the conduct of the Texas A&M community. Commitment to these ideals produces in each of us integrity, which fosters the will to make difficult choices, to accept responsibility for and consequences of our actions, even at great personal cost.

It is the responsibility of both students and instructors to maintain academic integrity by refusing to participate in or tolerate academic misconduct. Committing any of the following acts constitutes academic dishonesty. This list is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty.

Cheating: Intentionally using or attempting to use unauthorized materials, information, notes, study aids, or other devices or materials in any academic exercise.

Complicity: Intentionally or knowingly helping (or attempting to help) another to commit an act of academic dishonesty.
Plagiarism: Failing to give appropriate credit for or presenting as your own another person's words, ideas, results, or processes.

Multiple Submission: Submitting substantial portions of the same work (including oral reports) for credit more than once without authorization from the second instructor.

Falsification: Changing or omitting data or results, or manipulating research materials, equipment, or processes such that the research is not accurately represented in the research record.

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I will proactively promote academic integrity and adhere to the Aggie Honor System Office's policies pertaining to reporting and adjudication of violations of the Aggie Honor Code. For detailed definitions of academic misconduct and complete Honor Council Rules and Procedures, please visit http://aggiehonor.tamu.edu.

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Attendance
I expect you to attend class regularly, in accordance with university policy. I will routinely check attendance. You will be held responsible for any assignments, material covered, amendments to the syllabus, or announcements made in class, whether you are present or not.

If you miss an exam without a valid, documented university excuse, you will receive a grade of zero on that exam. According to university policy, there are exactly ten types of excused absences. These are listed in Texas A&M University Regulations and on the TAMU website at http://student-rules.tamu.edu/rule07:

1) Participation in an activity appearing on the university authorized activity list. (see List of Authorized and Sponsored Activities).

2) Death or major illness in your immediate family.

3) Illness of a dependent family member.

4) Participation in legal proceedings or administrative procedures that require your presence.

5) Religious holy day. (See Student Rules Appendix IV).

6) Injury or Illness that is too severe or contagious for you to attend class.

   a) For injury or illness that requires you to be absent from classes for three or more business days, you should obtain a medical confirmation note from your medical provider. The Student Health Center or an off-campus medical professional can provide a medical confirmation note for you. The medical confirmation note must contain the date and time of the illness and medical professional's confirmation of needed absence.

   b) Confirmation is required for injury or illness that causes you to be absent from class for less than three business days. Illness confirmation may be obtained by one or both of the following methods:
Texas A&M University Explanatory Statement for Absence from Class form available at [http://attendance.tamu.edu](http://attendance.tamu.edu) (if you do not see a doctor).

Confirmation of visit to a health care professional affirming date and time of visit.

c) An absence for a non-acute medical service does not constitute an excused absence.

7) Required participation in military duties.

8) Mandatory admission interviews for professional or graduate school which cannot be rescheduled.

9) Mandatory participation as a student-athlete in NCAA-sanctioned competition.

10) In accordance with Title IX of the Educational Amendments of 1972, Texas A&M University shall treat pregnancy (childbirth, false pregnancy, termination of pregnancy and recovery therefrom) and related conditions as a justification for an excused absence for so long a period of time as is deemed medically necessary by the student’s physician. Requests for excused absence related to pregnancy should be directed to the instructor; questions about Title IX should be directed to the University Title IX Coordinator.

It is noteworthy that job interviews are not considered excused absences. It’s never too soon to begin practicing managing your calendar in a professional manner. Arrange your job interviews and any necessary travel on dates other than those on which class meets. Please plan unexcused absences around the following exam dates:

Exam 1: TBD
Exam 2: TBD

**Makeup Policy**

If an absence is excused, the instructor will either provide the student an opportunity to make up any quiz, exam or other work that contributes to the final grade or provide a satisfactory alternative by a date agreed upon by the student and instructor. If the instructor has a regularly scheduled make up exam, students are expected to attend unless they have a university approved excuse. The make-up work must be completed in a timeframe not to exceed 30 calendar days from the last day of the initial absence.

**Grading**

Course grades for FINC 503 will be determined as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Max Score</th>
<th>Weight</th>
<th>Max Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>100</td>
<td>40%</td>
<td>40</td>
</tr>
<tr>
<td>Exam 2</td>
<td>100</td>
<td>40%</td>
<td>40</td>
</tr>
<tr>
<td>Project</td>
<td>100</td>
<td>20%</td>
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</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td>100</td>
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Course grades will follow the standard 90/80/70/60 scale:

<table>
<thead>
<tr>
<th>Points Collected (PC)</th>
<th>Course Grade</th>
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</thead>
<tbody>
<tr>
<td>PC ≥ 90</td>
<td>A</td>
</tr>
<tr>
<td>90 &gt; PC ≥ 80</td>
<td>B</td>
</tr>
<tr>
<td>80 &gt; PC ≥ 70</td>
<td>C</td>
</tr>
<tr>
<td>70 &gt; PC ≥ 60</td>
<td>D</td>
</tr>
<tr>
<td>60 &gt; PC</td>
<td>F</td>
</tr>
</tbody>
</table>
Graded assignments must be turned in before deadline to be eligible for full credit. Late assignments are subject to the following penalties:

<table>
<thead>
<tr>
<th>If the assignment is submitted...</th>
<th>Penalty</th>
<th>Maximum Possible Score</th>
</tr>
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<tbody>
<tr>
<td>before deadline</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; 24 hours after deadline</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; 24 hours after deadline</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt; 24 hours after deadline</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; 24 hours after deadline</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; 24 hours after deadline</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Even if you have a documented excused absence, please arrange to submit your assignment by its due date unless an emergency situation makes this impossible. Late assignments accompanied by a documented university excuse will not be subject to penalty.

When any graded work is returned to you, you have one week from the date it is returned to bring any grading errors to the instructor's attention. After the one-week deadline has passed, no further grade changes will be made for that particular item. The purpose of this deadline is not to discourage grade changes due to errors, but to ensure that any necessary ones are promptly made.

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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).
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Textbook Sections</th>
<th>Suggested Problems*</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and Overview</td>
<td>3.8, 3.9</td>
<td>CC 4, 5, 6; P 3, 6, 7, 9-12, 15, 16</td>
</tr>
<tr>
<td></td>
<td>Margin Purchases and Short Sales</td>
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<tr>
<td>2</td>
<td>Measuring Risk and Return</td>
<td>5.4-5.6, 5.8</td>
<td>CC 3, 4, 6; P 7-10; CFA 1-7</td>
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<tr>
<td></td>
<td>Risk Aversion and Capital Allocation 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Risk Aversion and Capital Allocation 2</td>
<td>6.1-6.6</td>
<td>CC 1-8; P 1-25, 27, 28a, 29a; CFA 1-9</td>
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<tr>
<td></td>
<td>Portfolio Risk and Return 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Portfolio Risk and Return 2</td>
<td>7.1-7.4</td>
<td>CC 1-5; P 1-19; CFA 1-13</td>
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<tr>
<td></td>
<td>Efficient Portfolios and Optimal Risky Portfolios</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The Capital Market Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Index Models 1</td>
<td>8.1-8.3, 8.5</td>
<td>CC 1-5; P 1-16; CFA 1-5</td>
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<tr>
<td>6</td>
<td>Index Models 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semester Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exam 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Capital Asset Pricing Model</td>
<td>9.1, 9.3, 9.4</td>
<td>CC 1-5; P 1-21, 23; CFA 1-12</td>
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<tr>
<td></td>
<td>Arbitrage Pricing Theory 1</td>
<td>10.1, 10.2</td>
<td>CC 1-3; P 1-6, 8-16; CFA 1-8</td>
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<tr>
<td></td>
<td>Arbitrage Pricing Theory 2</td>
<td>10.4, 10.5</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Market Efficiency and Behavioral Finance</td>
<td>11.1-11.5</td>
<td>CC 1-5; P 1-29; CFA 1-10</td>
</tr>
<tr>
<td>10</td>
<td>Bond Prices and Yields 1</td>
<td>2.1-2.2</td>
<td>CC 1-2, P 4,6-8, 13, 14, 16a; CFA 2, 4, 5</td>
</tr>
<tr>
<td></td>
<td>Bond Prices and Yields z</td>
<td>14.1-14.5</td>
<td>CC 1-9, P 1-14, 16, 17, 19-23, 25-30; CFA 1-3, 5, 6</td>
</tr>
<tr>
<td>11</td>
<td>Term Structure 1</td>
<td>15.1-15.6</td>
<td>CC 1-9; P 1-19; CFA 1-10</td>
</tr>
<tr>
<td></td>
<td>Term Structure 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Duration and Convexity</td>
<td>16.1-16.4</td>
<td>CC 1-8; P 1-24; CFA 1-9, 11a-b, 12, 13</td>
</tr>
<tr>
<td></td>
<td>Immunization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Equity Valuation: DDMs</td>
<td>18.1-18.4</td>
<td>CC 1-5; P 1-15; 17, 18, 20; CFA 1, 2, 4-9</td>
</tr>
<tr>
<td></td>
<td>Equity Valuation: Growth Opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Equity Valuation: PE Ratios</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Final Exam</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*CC indicates in-chapter Concept Checks. Solutions are in the text at the end of every chapter.

P refers to end-of-chapter problems written by text authors. Solutions are in the Solutions Manual.

CFA indicates end-of-chapter problems from old Chartered Financial Analyst exams. Solutions are in the Solutions Manual.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:  □ Undergraduate  □ Graduated  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):  Department of Finance
3. Course prefix, number and complete title of course:  FINC 604 Fixed Income Securities

5. Prerequisite(s):  FINC 602 and FINC 603 or by approval of Department Head
Cross-listed with:  NA
Stacked with:  NA

6. Is this a variable credit course?  □ Yes  □ No
If yes, from ________ to ________
7. Is this a repeatable course?  □ Yes  □ No
If yes, this course may be taken ________ times.
Will this course be repeated within the same semester?  □ Yes  □ No
8. Will this course be submitted to the Core Curriculum Council?  □ Yes  □ No
9. How will this course be graded?  □ Grade  □ S/U  □ P/F (CLMD)
10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      M.S. in Finance
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    FINC  604  FIXED INCOME SECURITIES

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CP and Final Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>Lecture Code</th>
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<td>5208070016</td>
<td>1110</td>
<td>15-16</td>
<td>0 3 6 3 2</td>
</tr>
</tbody>
</table>

Approval recommended by:
R. T. Dye  □
Department Head or Program Chair (Type Name & Sign)  Date

M. L. McAnally □
Chair, College Review Committee  Nov. 24 / 14  □

Dean of College  Date

Submitted to Coordinating Board by:
Chair, GC or UCC  Date

Associate Director, Curricular Services  Date

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
FINC 604 Fixed Income Securities
Section 6xx
Instructor: TBD
XXX@tamu.edu

Class Meets: TBD
Class Website: http://ecampus.tamu.edu and use Vista Logins, TAMU (NetID)
Office Hours: TBD Office: Wehner TBD
Phone: TBD

Course Description:
Finance 604, Fixed Income Securities, introduces students to the economics and institutions of bond markets and the determinants of price and interest rate (yield) for bonds (or fixed income securities) including Treasury issues, federal agency issues, corporate bonds, municipal bonds, mortgage-backed and asset-backed securities. Topics include i) features of fixed income securities (microeconomic and macroeconomic perspectives), ii) risks of bond investing, iii) fixed income valuation, iv) term structure, v) trading strategies, fixed income derivatives and credit risk.

Learning outcomes:
Students who complete this course will be able to
- Value each type of security covered in class;
- Apply the concepts of term structure, duration, convexity to devise profitable trading strategies in case of arbitrage opportunities, and to manage interest rate risks;
- Use fixed income derivatives to hedge risk;
- Understand relations between macro economy and bond markets;
- Learn about credit risk and credit risky assets. (If time permits)

Prerequisites
FINC602 and FINC603 or approval by the Department Head

Required Material

You will need a financial calculator to solve the bond pricing problems in this course. Students will not be allowed to share a calculator during exams.

Suggested Material
For more explanations on the institutional details of bond markets, students are referred to


In addition, you are expected to read, on a daily basis, the *Wall Street Journal* or the financial section of a major newspaper.

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You can make up a graded exercise only if an absence is excused. To be considered excused, you must
notify the instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence and provide appropriate documentation for the absence. In cases where advance notification is not feasible (for example, accident or emergency) you must provide notification by the end of the second working day after the absence, including an explanation of why notice could not be sent prior to the class. The fact that these are university-excused absences does not relieve you of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence.

Falsification of documentation is a violation of the Honor Code.

It is noteworthy that job interviews are not considered excused absences. It's never too soon to begin practicing managing your calendar in a professional manner. Arrange your job interviews and any necessary travel on dates other than those on which class meets.

**Grading**

A total of 350 points is possible for the semester. We will have three exams, worth 100 points each, plus several assignments to be handed out and graded, worth 50 points. When planning unexcused absences, remember that the following exam dates will not be changed.

Exam 1: TBD, approximately 10th class day (assuming class meets two days per week)
Exam 2: TBD, approximately 20th class day (assuming class meets two days per week)
Exam 3: TBD, university final exam schedule.

Your course grade will be determined as follows. Let SCORE represent the total number of points you collect during the semester.

| SCORE ≥ 315 | A |
| 315 > SCORE ≥ 280 | B |
| 280 > SCORE ≥ 245 | C |
| 245 > SCORE ≥ 210 | D |
| 210 > SCORE | F |

The Finance Department expects grades to accurately reflect the University's published grading system: Excellent = A, Good = B, Satisfactory = C, Passing = D, and Failing = F. To implement this philosophy and to promote a culture of excellence among finance majors, the department has adopted a target overall GPA of 3.20-3.50 for FINC 660. The complete departmental grading guideline document has been disseminated to all finance majors.

Late submissions of assignments are subject to the following penalties:

<table>
<thead>
<tr>
<th>If the project is submitted...</th>
<th>Penalty Maximum</th>
<th>Possible Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>before deadline</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>1st 24 hours after deadline</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>2nd 24 hours after deadline</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>3rd 24 hours after deadline</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>4th 24 hours after deadline</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>5th 24 hours after deadline</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>
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**Course Agenda**

<table>
<thead>
<tr>
<th>Module</th>
<th>Week</th>
<th>Topic</th>
<th>Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Bond Myths, Security Types, Arbitrage Principle, Prices vs. Yield to Maturity</td>
<td>1, 2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Zeros (Strips), Spot Rates, Forward Rates</td>
<td>3</td>
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<td>2</td>
<td>3</td>
<td>Term Structure, Empirical Yield Curves, Yield Spreads</td>
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<td>Macaulay Duration, Modified Duration, Convexity</td>
<td>5, 6</td>
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<td>5</td>
<td>Barbell vs. Bullet, EXAM 1</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Risk-neutral Probability, Interest Rate Trees</td>
<td>9</td>
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<tr>
<td></td>
<td>7</td>
<td>Binomial Bond Pricing, Ho-Lee Model</td>
<td>10, 11</td>
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<tr>
<td>4</td>
<td>8</td>
<td>Vasicek Model, BDT Model</td>
<td>11, 12</td>
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<td></td>
<td>9</td>
<td>Continuous Time Models</td>
<td>13, 14</td>
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<td></td>
<td>10</td>
<td>CIR Model, EXAM 2</td>
<td>14</td>
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<tr>
<td>5</td>
<td>11</td>
<td>Lab Sessions</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>12</td>
<td>Common Mortgages, Mortgage Backed Securities, PSA Model</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>Credit Ratings, KMV Model, Credit Derivatives (Credit Default Swaps)</td>
<td>Notes</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>Advanced Pricing Techniques for Fixed Income Derivatives</td>
<td>Notes</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Final Exam</td>
<td></td>
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</tbody>
</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions:
1. Course request type:  □ Undergraduate  □ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):  Department of Finance
3. Course prefix, number and complete title of course:  FINC 605 Valuation and Financial Modeling

5. Prerequisite(s):  FINC602, FINC603, and ACCT610 or by approval of Department Head
Cross-listed with:  NA  Stacked with:  NA
Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?  □ Yes  □ No  If yes, from ______ to ______
7. Is this a repeatable course?  □ Yes  □ No  If yes, this course may be taken ______ times.
Will this course be repeated within the same semester?  □ Yes  □ No
8. Will this course be submitted to the Core Curriculum Council?  □ Yes  □ No
9. How will this course be graded?  □ Grade  □ S/U  □ P/F (CLMD)
10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      M.S. in finance
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
   FINC  605  VALUATION
   Lect.  Lab  Other  SCH  CHF and Fund Code  Admin. Unit  Acad. Year  FIC Code
   3.00  0.00  0.00  3.00  5208010016  1110  15  -  16  0  0  3  6  3  2
   Approval recommended by:
   Department Head or Program Chair (Type Name & Sign)  Date  Chair, College Review Committee  Date
   Department Head or Program Chair (Type Name & Sign)  Date
   (if cross-listed course)
   Submitted to Coordinating Board by:
   Chair, GC or UCC  Date
   Associate Director, Curricular Services  Date
   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
1. Course Description and Learning Objectives

In this course you will learn how to value companies through rigorous application of finance theory and accounting principles. While I will introduce some new finance theory, my emphasis will be on you gaining a deeper understanding of the finance and accounting concepts that you learned in prior classes, as well their practical application to valuation. In other words, not only will you learn how to apply finance and accounting concepts to value real companies, you will also develop a better understanding of the concepts themselves, as well a thorough understanding of why it is appropriate to apply them in the manner you will be instructed.

Students with weak accounting and finance backgrounds will be at a disadvantage in this course. Proficiency with EXCEL (or other spreadsheet application such as provided in Corel Office, Perfect Office or Open Office) is also essential. Students who hope to never see a financial statement or spreadsheet again should not take this course.

The course utilizes extensive and detailed readings, chapter exercises, a case, a valuation project, and two exams. Students should expect the workload for this course to be demanding; it is only recommended for those students committed learning valuation techniques in depth.

This course is designed for students with little or no practical work experience in valuing companies. I do not believe that the value added from this course is as high for students who have previous job-related valuation experience as it is designed for those with none. However, several former students with prior work experience disagree. We do explore current common valuation practices, and I will be critical of some of them.

2. Prerequisites

FINC602, FINC603, and ACCT610 or approval by the Department Head.

3. Course Materials

A. Course Textbook (Required)


The book is available for purchase at the university bookstore.

B. Online materials

Material for the projects and additional readings will be posted for student access on the course site on ecampus. I will also post pdf copies of the PowerPoint slides I will use during class. These will not be distributed in hard copy, but students wishing to have them prior to class can print them out or can download them to their tablets. The final version of these will be available by at least 8:00AM on the day of class.
You will have to purchase online from Harvard Business School two cases: Brazos Partners, which is about an LBO, and Mercury Athletic, which is about a merger. They will cost you around $4.00 each. I will give more detailed instructions on how to purchase them by early November.

More importantly, I have put up a discussion board on ecampus where you can ask questions about course content and to discuss topics with your fellow students. **PLEASE DO NOT EMAIL ME OR THE TAs any questions about course content. Please post your question to the message board. The TAs and I will monitor the board and will make sure your question gets answered within 24 hours. Also, if you see a question another student asked to which you know the answer, feel free to jump in and answer it yourself. I will consider message board activity when computing your participation grade.**

C. Other Interesting but not Required Material.

_Damodaran on Valuation_, by Damodaran, Second Edition, John Wiley & Sons. This valuation textbook is quite popular and covers most of the concepts covered in this class, but with less depth than our textbook.


_Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions_, by Rosenbaum and Pearl., John Wiley & Sons, 2009. This book is a very practical guide of the mechanics of building many of the models and analyses we will do in this class.

Reading the Financial Times (http://www.ft.com), the Wall Street Journal (http://www.wsj.com), or any close substitute (http://www.thestreet.com) is highly recommended. Current financial news should be helpful for valuing your company.

For those who would like to learn useful Excel shortcuts and how to build standard investment banking models, you might want to purchase Knowledge Base Level I or Knowledge Base Level II from DealMaven, Inc. (which is now owned by FactSet). Knowledge Base Level I teaches Excel shortcuts and how to build a standard IBANK model. Knowledge Base Level II discusses LBO and M&A transactions and how to build an LBO model and an accretion/dilution analysis for an M&A deal. To purchase or learn more about either of these products, go to:

http://store02.prostores.com/servlet/factsetdealmavenorders/StoreFront

There is student pricing available, but it is not cheap.

4. Grading.

Grading in the course will be based on the following criteria:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weightage</th>
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<tbody>
<tr>
<td>Valuation of a Company (Group project, divided in 3 stages)</td>
<td>30%</td>
</tr>
<tr>
<td>Brazos Partners Case (Group project)</td>
<td>10%</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Other homework</td>
<td>5%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
A. Examinations

General Policies. Both the midterm and the final exam will be written and administered at a specified scheduled time and place (see below). Please note the scheduling of the exams. You are responsible for ensuring that you are available and on campus to take them at that time. I will not FAX exams to remote locations. I will not permit students to take either exam at another time unless they are gravely ill, face a significant emergency, have conflicting exams or military duties, or are otherwise permitted to reschedule in Sections 7 and 8 of the Texas A&M Academic Rules for Students (http://student-rules.tamu.edu/academicrules and http://student-rules.tamu.edu/rule07). If your travel plans conflict with the date of an exam, you should change your travel plans now, or drop the course. Please advise potential employers that you cannot schedule interviews that conflict with either exam. You will be allowed to use your textbook, your class notes, and a calculator when taking exams, but no other materials. Both exams are absolutely mandatory. Students who fail to take either exam (without a valid excuse) will receive an “F” in the course, even if they receive a perfect grade on everything else.

The Midterm Exam will be administered in class. Its scope includes all topics covered up to that point in time.

The Final Exam will be comprehensive, covering all material from the class, including all material covered before the midterm. It will administered on the date and time designated for your section.

B. Group Projects and Individual Exercises

As with exams, both group projects (the LBO case and the valuation project) are absolutely mandatory. Students who fail to hand in either project will receive an “F” for the course, even if they receive a perfect grade on everything else.

It is theoretically possible to pass the class without doing the individual homework exercises (as they count for only 5% of the grade), but it is almost practically impossible. You cannot do well on the exams unless you extensively practice applying the concepts we cover in class, and the individual homework exercises are the best practice. Even if you carefully read everything in the book and come to every class and carefully pay attention and take excellent notes, you will likely fail both exams if you do not do the homework.

Note that assignments are marked on the outline as either D & S or S. If marked D & S, you must be prepared to discuss the exercise or project and you must submit it at the beginning of the class. If marked with just an S, you will just be submitting the assignment in class, but it will not be discussed.

Using solutions handed out in prior years for exercises or the work of prior or current students who are not members of your group on submitted work is considered a violation of the code of academic honor and integrity. Moreover, it is likely your exam performance will suffer as these assignments and projects are intended to help you prepare for exams.

As part of the course requirements, you will pick a company of your own choosing and value it. Students will have to hand in reports for the three stages of the valuation project during the semester. Late submission will incur a penalty of 10% per day, counting the day of the class itself. Students must turn in these projects at the beginning of class. Students who rely on team members to do all their valuation projects will fail to learn the material necessary to pass the exams.

There will be a separate write-up of the valuation group project available in a few weeks. In the interim, you should consider possible companies you want to value. There are several criteria that you should keep in mind in choosing a company to value:

1. This has to be a company that you and your teammates have not done any valuation work on in a prior
course or in a job or internship or in any other capacity. In other words, you may not value a company where some of the valuation work has already been completed by you or any of your teammates.

2. The company you pick must be publicly traded in the U.S. and must have at least three years of historical financial statement and stock price data available. **Check this before submitting company names.** Hoovers' Premium and Merger Online are a good databases to check for this information. You can find links on the following website: [http://kugles.library.tamu.edu/Business-Database-List](http://kugles.library.tamu.edu/Business-Database-List)

3. I strongly advise you to pick a company that is in a single line of business, as valuing diversified companies like General Electric is challenging, as it involves valuing each line of business separately. Likewise, I strongly advise to pick a company with all (or nearly all) of its operations in the US, as cross-border issues, which we will not cover in any depth, also make valuation complicated. If you must choose a company with some foreign operations, it will be better if the host of its foreign operations is more like a Canada than a South Africa or a Greece.

4. There should be at least three publicly traded competitors in the same business with at least three years of historical data. It is best if these are "pure-plays" (e.g., only in the business of the firm being valued) and have all or most of their operations in the US (or, if you pick a company to value that is foreign, the same country that your valuation target operates in). **Check this before submitting company names.** Hoovers Premium is also a good resource for finding competitors.

5. Pick a company where you believe you have some ability to create reasonable forecasts. Hence, you should pick a company whose business model is relatively simple and mature. Picking a technology company where the technology is unproven and the demand for the technology is highly uncertain is going to create special challenges in forecasting. Likewise, picking a company that has a diverse and complex product line (i.e., Apple) is also going to make the project hard. Picking a company that is persistently making losses or is in financial distress will also present many challenges that are outside the scope of this class. On the other hand, you should **pick a company that interests you and will keep you motivated for the whole semester.** By the time you have finished the project, you will know more about the company than many of its executives!

For the valuation project and the leveraged buyout case, you are to work in teams of **three or four individuals.** No team can have more than four members (more on teams later). Generally, everyone in the same group receives the same grade for the project. However, I will have you fill out a peer evaluation at the end of the semester. If your fellow group members agree that you did not pull your weight, then I will adjust your grade accordingly.

The first page of a submitted assignment based on the valuation project should indicate the name of the valued company and the names of the individuals in the group.

The first page of the submitted leveraged buyout case case should have the name of all your group members.

You and your team should immediately begin to think about what company you want to value. Additional information about this project will be available in a few weeks. It would be wise, however, to target a few companies and select your team members as soon as possible. You should also include in your submission the names of **at least** three publicly-traded comps that you plan to use in the valuation.

C. Class Participation

Class participation counts 5% percent of your total grade. Some classes require you to be prepared for class discussion, while other classes will strictly follow a lecture format. During lectures, I encourage you to ask questions. Voluntary class participation is expected, but I will also cold call on individuals in class from time to time. The education experience for everyone suffers if participation or attendance for the class becomes a problem.
5. Class Attendance, Preparation and Etiquette

Students should attend the section of the class for which they are registered. Students are expected to attend class throughout the semester. In the case of a rare conflict, students may attend another of my sections. You should notify me by 8:30AM by email if you are planning to attend a different section and you should come up to me prior to the start of the class you will attend.

Although I often follow the textbook, I cover a significant amount of material not contained therein. In many other instances, I disagree with the textbook authors and teach a given topic in a different way. Finally, I go into more depth on some topics than the textbook. You are responsible for everything I cover that is not in the textbook. Therefore, though important for class preparation, reading the textbook is not a substitute for coming to class. By failing to come to class, you will miss out on much material that will likely be on an exam. Also, if you miss a class, I will not answer any questions you might have on material covered on that day.

In addition, beware that the class notes I post on eCampus are but a bare outline of what I actually cover. I discuss many things not explicitly written on the slides, which I expect you to supplement with your own notes. Therefore, as with reading the textbook, reading my lecture notes is not a substitute for coming to class.

Students are expected to arrive on time for class. Once in class, students should remain until the class is completed. Arrivals and departures during class time interfere with the educational process and are not fair to the other students. If you must schedule an interview on-campus during class, do not come to class for part of the period, instead come to another section and notify me in advance.

6. Workload

The subject matter of this course is quite technical and difficult. When I have taught this class before, students have indicated that the workload is extremely heavy compared to other courses. You will probably find yourself pulling an all-nighter or two over the course of the semester. Because of the technical nature of this course, it does not appeal to all students. It is only suitable for students who are committed to a rigorous and in-depth learning experience. I believe in communicating the complexity of the issues one faces in valuation, and I never shy away from an issue just because it is difficult.

7. Academic Integrity

I expect all students to follow the Aggie honor code:

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

In the context of this course, the above means that examinations are to be the work of the individual student using only the material permitted during the examination. Individual homework assignments are to be the work of the individual student whose name is on the assignment, though students may discuss their methods of solving the problems contained therein with other students before it is handed in. Group projects, however, must be the work of only the team members reported on the front of the document, and students may not discuss their project with anyone who is not a member of their team. To repeat, for group projects, students may not in any way rely on the work of prior students or current students that are not members of their team. That means when working on group projects, students may not use any homework, cases or projects from prior semesters of this class or other classes that are directly relevant to the project at hand. When a project requires you to produce a forecasting or valuation model, the use of a forecasting or valuation model not created exclusively by the student team for this course is a violation of the codes of academic integrity. In other words, for all submitted assignments, you must start with a spreadsheet which is at most populated with some raw data. Moreover, as indicated previously, the company you value must be one that none of the team members has valued previously. You may consult financial reports and articles that discuss the company and its industry (so long as you cite them properly), but you may not use any forecasts or models created by someone else. If you have questions concerning this policy, please see me for a clarification before you use any questionable material.
I will ensure that anyone who violates the above policies will be disciplined to the fullest extent provided for by the Mays School and Texas A&M policies on academic integrity. The usual sanction for a first offense will be to receive a grade of F* for the course. For more information on Texas A&M polices on academic integrity and honor, visit the following website: http://aggiehonor.tamu.edu/.

8. Teams
The valuation project and LBO case should be worked on by teams of three to four students. Teams of five or more are not allowed. All students from a team must be from the same section. I will not become involved in any group problems or disputes. In choosing teammates, consider the skills your team needs to possess: accounting, finance and spreadsheet modeling expertise. Also make sure that your teammates' expectations for their performance in this course are consistent with yours. I have created a forum on canvas to facilitate your forming of teams.

The composition of your team needs to be decided by the time you submit the name of the companies you would like to value.

As a measure to prevent shirking, I will have everyone fill out a peer evaluation of their group members at the end of the semester. While I generally give the same grade on a group project to all group members, I will adjust your grade downward on all the projects if your peers all agree that you shirked.

9. Accommodations for disabilities
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.

10. Makeup Policy
You can make up an exam only if an absence is excused. To be considered excused, you must notify me in writing (acknowledged e-mail message is acceptable) prior to the date of absence, and provide appropriate documentation for the absence. In cases where advance notification is not feasible (for example, accident or emergency) you must provide notification by the end of the second working day after the absence, including an explanation of why notice could not be sent prior to the class. The fact that these are university-excused absences does not relieve you of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence. Falsification of documentation is a violation of the Honor Code.
<table>
<thead>
<tr>
<th>Session</th>
<th>Topic</th>
<th>Chapter</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to Course and Valuation</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Financial Statement Analysis &amp; Picking Comps</td>
<td>2</td>
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<tr>
<td>3</td>
<td>Continue FSA, start of Free Cash Flow and SCF</td>
<td>2 &amp; 3.1-3.4</td>
<td>S--Name of valuation target &amp; comps</td>
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<td>4</td>
<td>Free Cash Flows &amp; SCF</td>
<td>3.1-3.4</td>
<td>D&amp;S--Financial Ratio Exercises</td>
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<tr>
<td>5</td>
<td>Special Issues with FCF</td>
<td>3.5-3.7</td>
<td>S--Valuation Project: Stage 1</td>
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<tr>
<td>6</td>
<td>Creating a Financial Model 1</td>
<td>4</td>
<td>D&amp;S--Free Cash Flow Exercises</td>
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<td>7</td>
<td>Creating a Financial Model 2</td>
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<td>8</td>
<td>In-Class Financial Modeling Exercise</td>
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<td>9</td>
<td>The APV and WACC Methods</td>
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<td>10</td>
<td>Measuring Continuing Value</td>
<td>6</td>
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<td>11</td>
<td>Excess Earnings Models</td>
<td>7</td>
<td>S--Valuation Project: Stages 1&amp;2</td>
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<tr>
<td>12</td>
<td>Catch-Up and Review (If Time Permits)</td>
<td></td>
<td>D&amp;S--APV, WACC, EFC, EVA Exercises</td>
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<td>Optional Midterm Review Session in 115 @ 5:30 PM</td>
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<td>13</td>
<td>Midterm Exam (In Class)</td>
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<td>14</td>
<td>Cost of Equity Capital 1</td>
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<tr>
<td>15</td>
<td>Cost of Equity Capital 2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Cost of Debt &amp; Preferred Capital</td>
<td>9</td>
<td>S--Equity Cost of Capital Exercises</td>
</tr>
<tr>
<td>17</td>
<td>Leverage &amp; the cost of capital 1</td>
<td>10</td>
<td>S--Debt Cost of Capital Exercises</td>
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<tr>
<td>18</td>
<td>Leverage &amp; the cost of capital 2</td>
<td>10</td>
<td></td>
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<td>19</td>
<td>Leases &amp; the cost of capital</td>
<td>11.1, 11.3</td>
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<tr>
<td>20</td>
<td>Financial Distress &amp; other Complications</td>
<td>11.2,11.4-8</td>
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<tr>
<td>21</td>
<td>Cost of Capital: putting all the pieces together</td>
<td></td>
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<tr>
<td>22</td>
<td>Warrants &amp; Employee Stock Options 1</td>
<td>12.1-12.3</td>
<td>D&amp;S--Cost of Capital Exercises</td>
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<tr>
<td>23</td>
<td>Warrants &amp; Employee Stock Options 2</td>
<td>12.1-12.3</td>
<td></td>
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<tr>
<td>24</td>
<td>Overview of Market Multiples</td>
<td>13</td>
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<tr>
<td>25</td>
<td>Advanced topic: Real Options</td>
<td>HBS Note</td>
<td>S--Final valuation project: Stages 1-3</td>
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<tr>
<td>26</td>
<td>Advanced Topic: Mergers &amp; Acquisitions</td>
<td>16</td>
<td>S--Multiples Exercises</td>
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<tr>
<td>27</td>
<td>Discussion of Real Options Case</td>
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<td>D &amp; S -- Real Option Case</td>
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<tr>
<td>28</td>
<td>M&amp;A Case &amp; Review (If Time Permits)</td>
<td></td>
<td>D--M&amp;A Case</td>
</tr>
<tr>
<td></td>
<td>Optional Final Review Session in 115 @ 5:30 PM</td>
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</tbody>
</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

1. Course request type: □ Undergraduate  ✔ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name): Department of Geography
   GEOG 634 Hydrology and Environment

3. Course prefix, number and complete title of course:

4. Catalog course description (not to exceed 50 words):
   Examination of hydrologic processes affecting surface and groundwater resources; impact of climate, soils, vegetation, land-use practices, and human effects on hydrologic processes; natural-scientific perspectives emphasized.

Graduate classification

5. Prerequisite(s):
   WMHS 501
   Cross-listed with: GEOG 434
   Stacked with:

   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course? □ Yes  ✔ No
   If yes, from _____ to _____

7. Is this a repeatable course? □ Yes  ✔ No
   If yes, this course may be taken _____ times.
   Will this course be repeated within the same semester? □ Yes  ✔ No

8. Will this course be submitted to the Core Curriculum Council? □ Yes  ✔ No

9. How will this course be graded: ✔ Grade  □ S/U  □ P/F (CR/MD)

10. This course will be:
   a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      M.S., Ph.D. in geography

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. ✔ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    GEOG  634  Hydrology and Environment

    | Lect. | Lab | Other | SCH | CIP and Final Code | Admin. Unit | Acad. Year | HCC Code |
    |-------|-----|-------|-----|-------------------|-------------|------------|----------|
    | 3     | 1   |       | 3   | 400605 02         | 1250        | 15         | 0 0 3 6 3 2 |

    Approval recommended by: David Cairns
    Department Head or Program Chair (Type Name & Sign)  Date
    Ronald Kaiser
    Department Head or Program Chair (Type Name & Sign)  Date

    Submitted to Coordinating Board by:
    Chair, GC or UCC  Date
    Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Hydrology and Environment (GEOG 634)

Fall 2015

Instructor: Dr. Steven M. Quiring
Office: O&M 814A
Office Hours: M 11:00 – noon, W 10:30 – 11:30 a.m. and by appointment
Phone: 458-1712
Email: squiring@tamu.edu

Class Meeting Time and Place: MWF 9:10 –10:00 a.m., 303 CSA

Online Course Information: http://ecampus.tamu.edu/

Prerequisite: Graduate classification

Course Objective:
To provide you with an understanding of all components of the hydrologic cycle and how these components vary spatially and temporally due to the influence of human activities and the environment.

Course Description:
Water is fundamental for life on earth. This course will focus on water in the atmosphere, water on the earth’s surface and water in the root zone of the soil. We will investigate all of the hydrologic processes affecting surface and groundwater resources, including precipitation, evapotranspiration, infiltration & storage, and runoff. This includes investigation of the impact of climate, soils, vegetation, land-use practices and human activities on hydrologic processes. Specifically we will investigate the:

1) processes controlling each component of the hydrologic cycle
2) spatial and temporal distribution of each component of the hydrologic cycle in the atmosphere and over the earth’s surface (i.e., how and why it varies)
3) measurement and modeling of each component of the hydrologic cycle (i.e., how is it measured, how accurate are the measurements and models, what are the known biases in measuring and modeling this component)
4) issues related to how humans manage each component and how it is influenced by human activities.

The readings and lectures will cover the fundamental principles that are necessary for understanding hydroclimatology. The term paper will require you to quantitatively analyze real-world hydrologic problems and it will help you develop research skills (data analysis, problem solving, etc.).
Learning Objectives:
As a result of taking this course you should know certain things (knowledge objectives) and be able to do certain things (skill objectives).

Knowledge objectives (Things you should know by the end of the course):

- Describe the processes that are responsible for each component of the hydrologic cycle.
- Describe the spatial distribution of each of the components and why they are distributed in this manner (i.e., how and why). You should also be able to describe the temporal trends in each component (e.g., Is the world getting wetter or drier?).
- Describe how each component of the hydrologic cycle is measured and modeled and the biases (errors) in each of the measuring and modeling techniques.
- Discuss the major water resource issues and critique the proposed solutions to these issues.
- Critique published research on hydrology and hydroclimatology and be able to describe the strengths and weaknesses of the data and methodology utilized by the authors.

Skill objectives (Things you should be able to do by the end of the course):

- Interpolate precipitation data.
- Analyze trends in precipitation data.
- Calculate the recurrence interval for precipitation events of a given magnitude.
- Model evapotranspiration.
- Calculate infiltration and runoff.
- Estimate peak discharge.
- Model the climatic water balance.
- Perform library research.
- Write a literature review (synthesis of the literature).
- Evaluate the published research and the research of your peers.
- Write a scientific research paper that conforms to the accepted standard for publication in a peer-reviewed journal.
- Deliver a clear and concise oral presentation on the research that you completed during the semester.

Required Textbook:


Weekly readings will be assigned throughout the semester and will be made available through ecampus.tamu.edu. The textbook will cover the basic material for each unit and
the other assigned readings (which will be drawn from the scientific literature) will provide more depth on certain topics.

**Course Outline:**
We will begin by examining the fundamentals and importance of hydrology. We will then examine each component of the hydrological cycle in detail. Finally, we will examine some contemporary issues in hydrology.

1) **Introduction to Hydrology (Week 1)**
   - The Hydrosphere
   - Why is water important?
   - Functions and properties of water
   - Basic concepts in hydrology:
     - Hydrological cycle
     - Watershed

2) **Precipitation (Week 2, 3 and 4)**
   - Mechanisms
     - What cause precipitation to occur?
     - Types (convective, frontal, cyclonic, orographic)
   - Spatial and Temporal Variability
   - Measurement
     - In situ (gage measurement and biases)
     - Remote sensing (weather radar and satellite)
   - Modeling and Interpolation
     - Areal averaging
     - Interpolation
   - Issues
     - Cloud seeding
     - Climate change

3) **Evapotranspiration (ET) (Week 5 and 6)**
   - Processes
     - What is evaporation (E)?
     - What is transpiration (T)?
     - What controls the rate of E&T?
     - What is Potential ET? What is Actual ET?
   - Spatial and Temporal Variability
   - Measuring ET
   - Modeling ET
   - Issues
     - Controlling ET

4) **Infiltration and Storage (soil moisture & ground water) (Week 7, 8 and 9)**
   - Processes
     - What controls infiltration and storage?
- Impact of soil characteristics
- Soil water movement
- Soil water loss
- Ground water recharge and flow
- Ground water-surface water relations
  • Spatial and Temporal Variability
  • Measuring and Modeling Infiltration and Storage
  • Issues
    - Impervious surfaces
    - Irrigation
    - Moisture recycling
    - Effects of ground water extraction
    - Aquifer storage and recovery

5) Runoff and Streamflow (Week 10, 11 and 12)
  • Processes
    - Overland runoff
    - Base flow and event flow
    - Streamflow dynamics and networks
    - Hydrographs
  • Spatial and Temporal Variability
  • Measuring and Modeling Streamflow
    - Stream gages (discharge, stage)
    - Flow routing
    - Hydrologic modeling
  • Issues
    - Flood control structures
    - Irrigation
    - Land use/land cover change
    - Water quality
    - Climate change

7) Graduate Research Presentations (December 1, 3 & 5)

8) Last Class & Review for Final Exam (Monday, December 8)

FIRST EXAM (Monday, October 13)
RESEARCH PAPER (Wednesday, November 26)
FINAL EXAM (Monday, December 15, 8-10 am)

Grading:
First Exam (Oct. 13) 25%
Research Paper (Nov. 26) 35%
Research Presentation (Dec. 1, 3 or 5) 10%
Final Exam (Dec. 15) 30%
*No late papers or exercises will be accepted. Students who do not hand in an assignment by the due date will receive a grade of zero.

The grading system follows the Texas A&M University grading system:
A = Excellent
B = Good
C = Satisfactory
D = Passing
F = Failing

Grades will be assigned based on the following cutoffs: A = > 90%, B = 80-89%, C = 70-79%, D = 60-69%, F = <60%.

Exams (first exam = 25%; final exam = 30%):
The two exams will be based on the material covered in the lectures and the readings and in-class exercises. The final exam will be cumulative. They will involve short answer, application and problem solving (based on the exercises), and paragraph/essay questions. Students seeking an excused absence on a test day must notify the professor or the Department of Geography by the end of the next working day following the absence, as described in Texas A&M University Student Rules. For an absence considered excused by the university (see Student Rules), the student will be required to make-up the missed exam. At the instructor’s discretion, the make-up exam might be in a different format (e.g., essay) than the original exam. Please see the instructor in advance if you know you will not be able to take a test on the scheduled date.

Research Paper (35%):
The research paper will provide you with an opportunity to do an in-depth study on a hydrological topic that interests you. I am expecting you to review the relevant literature and analyze data. The paper should be approximately 20 pages and should follow the style of Water Resources Research. You will be required to write a research paper and deliver a presentation to the class. This assignment will be discussed in more detail in class. You are welcome to select any topic that relates to the hydrological cycle (e.g., precipitation, evapotranspiration, soil moisture, runoff or streamflow). I have listed examples of a number of topics that would be appropriate:
• How accurately is precipitation measured by… satellites, radar, gages?
• How will (how is) climate change affecting hydroclimatology:
  Is precipitation increasing or decreasing (are floods or droughts becoming more frequent)? Will there be more extreme events? What will happen to evaporation?
  Describe one of the following hydrological applications: flood forecasting, reservoir management, flash flooding risk, hydrological modeling
• What impact is land use/land cover change having on hydrology?
• What causes drought to occur?

Project Presentation (10%):
All students will be required to present their research in class Dec. 1, Dec. 3 or Dec. 5.
You will be given 15 minutes to present your research and there will be a few minutes for questions following your presentation. Time limits will be strictly enforced (just as they
would be if you were presenting at a national meeting). I will go over the grading rubric in class. You are encouraged to use powerpoint or other visual media to enhance your presentation.

Cellular Telephones
As a courtesy to the instructor and other students please turn off all cellular telephones and two-way pagers before the class begins. I find it extremely impolite to be interrupted by a cellular telephone when I am lecturing.

Email
All Texas A&M students should use their neo email accounts when emailing the instructor and teaching assistants. I may also send out class announcements via the neo email system as well. It is your responsibility to check your neo email account regularly.

Scholastic Dishonesty
It is my hope that academic dishonesty will not be a problem in this class. Texas A&M does, however, have a Scholastic Dishonesty policy to which both students and faculty must comply. If you have any questions about the University's Scholastic Dishonesty policy please review the Student Rules or see me. The Aggie Honor program is the new program that will handle all cases of academic dishonesty. The Aggie Honor program website is located at http://aggiehonors.tamu.edu/.

The materials used in this course 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 plagiarism, please consult the latest issue of the Texas A&M University Student Rules, http://student-rules.tamu.edu, under the section "Scholastic Dishonesty."

Aggie Code of Honor: "An Aggie does not lie, cheat or steal, or tolerate those who do"
http://aggiehonors.tamu.edu/

Student Support
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 more information please contact:
Services for Students with Disabilities
Room B118 of Cain Hall, 845-1637, http://disability.tamu.edu/

There are numerous other student support organizations on campus including:
Student Counseling Service
Cain Hall, 845-4427, http://scs.tamu.edu/
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   - ☐ Undergraduate
   - ☑ Graduate
   - ☐ First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Department of Geography

3. Course prefix, number and complete title of course:
   GEOG 659 Geodatabases

4. Catalog course description (not to exceed 50 words):
   GIS data modeling; introductory and advanced spatial SQL (structured query language); Spatial database
   management system (DBMS) server setup, management, and maintenance; Spatial DBMS design, implementation,
   tuning, performance analysis, and indexing; Connecting spatial data services and warehouses to GIS software.

5. Prerequisite(s):
   - None

6. Cross-listed with:
   - None
   - Stacked with:
     Cross-listed courses require the signature of both department heads.

7. Is this a variable credit course?
   - ☐ Yes
   - ☑ No
   - If yes, from _______ to _______

8. Is this a repeatable course?
   - ☐ Yes
   - ☑ No
   - If yes, this course may be taken _______ times.
     Will this course be repeated within the same semester?
     - ☐ Yes
     - ☑ No

9. Will this course be submitted to the Core Curriculum Council?
   - ☐ Yes
   - ☑ No
   - ☐ P/F (CLMD)

10. How will this course be graded:
    - ☑ Grade
    - ☐ S/U

11. This course will be:
    a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

12. M.S., Ph.D. in Geography

13. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

14. ☑ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export
controls/export-controls-basics-for-distance-education).

15. GEOG 659 Geodatabases

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Academic Year</th>
<th>HSE Code</th>
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<td>0 0 3 6 3 2</td>
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</tbody>
</table>

Approval recommended by:
David M. Cairns, Dept. Head

Department Head or Program Chair (Type Name & Sign) Date

Chair, College Review Committee Date

Department Head or Program Chair (Type Name & Sign) Date
(if cross-listed course)

Dean of College Date

Submitted to Coordinating Board by:
Chair, GC or UCC Date

Associate Director, Curricular Services Date

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Geodatabases

GEOG 659

Instructor
Dr. Daniel Goldberg
Office: O&M 707F
Tel: 979-845-7141
Email: daniel.goldberg@tamu.edu
Office Hours: TBD
and by appointment

Teaching Assistants
TBD
Sections 500
Office: TBD
Email: TBD
Office Hours: TBD
Office Hours: TBD

Meeting Time and Locations

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Labs</th>
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<tr>
<td>Time: TBD</td>
<td>500 – TBD</td>
</tr>
<tr>
<td>Room: TBD</td>
<td>Room: TBD</td>
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Class web site
Updates to the lecture and lab syllabi as well as other course materials will be made available on the course website. It can be accessed on ELearning at http://ecampus.tamu.edu.

Course Description
This class is an introduction to spatial data models, spatial database design and management, and the use of spatial databases and models within Geographic Information Systems. This lab-oriented course covers basic data modeling, techniques and best practices for designing spatial databases, and the application in spatial databases in the GIS analysis and modeling. This course introduces students to database setup, management, and utilization in the development data-rich GIS applications and services.

Email
All Texas A&M students should use their Texas A&M University email accounts when emailing the instructor and teaching assistants. I may also send out class announcements via the University email system as well. It is your responsibility to check your official TAMU email account regularly.
Learning Outcomes

This course is designed to introduce students to the basics of data modeling within the context of industry-standard spatial database systems. Through hands-on experience, students will learn how to convert a real-world problem into components that can be represented within a spatial database. Students will learn to setup, administer, and utilize industry-standard database platforms such as Microsoft SQL Server in order to design, implement, operationalize, and deploy a Geographic Information System (GIS) data-driven solution to a real-world problem. This course will provide students with a solid foundation in design, population, and maintenance of spatial databases as well as a basic knowledge of how to utilize these data models in GIS applications.

The course will start with an introduction to fundamental data modeling techniques inside and outside a GIS including Entity-Relationship (ER) diagrams and the “Normal Forms” of well-designed databases. The course will next cover hands-on installation of industry-standard spatial database platforms such as SQL Server and the use of these systems within commercial GIS packages such as ArcGIS. Students will learn and employ introductory structure query language (SQL) to access and manipulate data from spatial databases as they obtain the skill necessary to integrate spatial data models and databases within GIS projects. The course will include a lecture component where theoretical issues are covered and lab-based exercises where students have the opportunity to practice setting up, managing, and implementing these techniques and technologies.

At the end of this class, each student will be able to:

1) Design well-formed simple database models, using appropriate design techniques, and be able to implement such designs using spatial relational database management systems (RDBMS);

2) Setup and administer industry-standard database servers;

3) Use SQL to establish, connect to, and interrogate spatial databases;

4) Use ArcGIS to create, connect to, populate, and utilize simple geodatabases;

5) Critically assess the limitations of conventional database structures as a means of storing spatial data;

6) Critically assess current advances in database design for geographical phenomena; and

7) Develop data models and accompanying spatial RDBMS implementations necessary for managing spatial data in real-world scenarios.

8) Lead a team of developers in the execution of a customer-driven database project.

GIS Software

This course will utilize the ArcGIS™ suite of software developed by ESRI including ArcServer. Installable copies may be obtained from the instructor or teaching assistants.
Database Software

This course will utilize the Microsoft SQL Server™ suite of software. Installable copies may be downloaded from the Microsoft Dream Spark program available to TAMU students.

Development Software

This course will utilize the SQL programming language which can be developed with basic text editing software as well as within Microsoft SQL Server.

Lecture Texts

Required Lecture Texts


Additional readings and materials will be drawn from websites, handouts, and online resources.

Class Attendance

The university views class attendance as the responsibility of the individual student. Information on University attendance rules can be found at http://student-rules.tamu.edu/rule07. As described below, a portion of each student’s grade is based on in-class participation. This will be judged by the instructor as regular attendance and active engagement on a consistent basis that contributes to the class in some manner.

Lab attendance is not required, but considered essential for successful completion of the course.
Grading

Your grade in this class will be based as described below:

A. Lecture 30%
   Midterm 1 10%
   Midterm 2 10%
   Final Exam 10%

B. Lab 20%
   Exercises 20%

B. Homework 5%
   Exercises 5%

C. Project 40%
   Project Proposal 10%
   Project Status Report 1 2.5%
   Project Status Report 2 2.5%
   Final Project 25%

D. Participation 5%
   Class Participation 5%

The grading scale for this course is as follows:
≥90% A, 80-89% B, 70-79% C, 60-69% D, <60% F

An average performance in the class will earn a satisfactory grade.

Makeups

Makeups for the Exam and other work will be allowed only for University excused absences and will be administered in compliance with university rules. Excused absences are covered in the Texas A&M University Student Rules (http://student-rules.tamu.edu)

Cellular Telephones

As a courtesy to the instructor and other students please turn off all cellular telephones before class.

Labs

Labs are an important and integral portion of the course. There is simply no way to learn about spatial database setup, programming, or maintenance without spending considerable time in lab—working on with these data and services. While the scheduled lab time is two hours, labs will typically require time outside of the scheduled lab hours to complete.

Labs will be due at the beginning of the following lab unless otherwise indicated. Scores for late labs will be deducted 10% per day until they are turned in, up to one week. After one week late, labs will not be accepted for credit. It is your responsibility for keeping up with lab assignments. You should talk to your Teaching Assistant and or the instructor BEFORE late labs become a problem.
Final Project

Throughout the semester, graduate students lead a team of up to 4 undergraduate students to work in teams of up to 4 to apply the spatial database concepts learned in lectures with hands-on experience gained in labs to develop a data model and database implementation for a "real-world" problem using spatial databases. Graduate students will be responsible for identifying a "customer" who needs a GIS program developed to extend or automate a commercial GIS platform (e.g., ArcGIS). Graduate students will work with the customer to identify the requirements for the system, supervise the undergraduate team members, and assist in the development of the final product.

Proposal Pitches

Each graduate student will present a 5 minute presentation of their idea for a project to the class. This will pitch will include enough details to recruit undergraduate students to work on the graduate student’s project. Undergraduate students will choose project teams based on their willingness to work on the project pitched by the graduate student. Graduate students who receive an insufficient number of students to complete their project will work on another graduate student’s project.

Project Proposal

Each student group will submit a 1-page synopsis of the proposed topic and present a 5 minute description. This synopsis will include the problem the group will attempt to address including a set of requirements, the methods and data that will be used to accomplish their goals, and a development roadmap. The graduate student will be responsible for communicating with the "customer" to ensure that the project can be completed within the timeframe and expertise of the project team, and that the end product will responsive to the needs of the "customer".

Project Status Reports

Each student group will present two short presentations during the semester that outline project progress. Students will be graded based on progress toward project completion.

Project Deliverables

Each student group will: a) design a data model sufficient for implementing a spatial database for their real-world problem; b) implement the data model within a spatial database system; c) populate the spatial data model and utilize it within ArcGIS or another GIS; c) deliver a report summarizing the problem they were trying to address, the tools, methods, and data used to accomplish their goals, and reflections on how well their implementation meets the requirements set forth; and d) demonstrate a hands-on working version of their prototype implementation to the class during a project presentation.

Grading

Each student will be graded on the quality of the team project. In addition, each student's grade will be based in part on a score they receive from their teammates evaluating their contribution to the overall project. Students are advised to consult with the teaching assistant and/or professor in advance if issues of team member performance become an issue.
Student Support

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Services for Students with Disabilities

Room B118 of Cain Hall, 845-1637 or on the web at http://disability.tamu.edu/

There are numerous other student support organizations on campus including

Student Counseling Service

Cain Hall, 845-4427, http://scs.tamu.edu
Student Counseling Helpline 5:00pm-8:00am: 845-2700

University Writing Center


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"Aggies don’t lie, cheat, or steal, nor tolerate those that do"

A tentative course schedule follows on the next page.
# Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to the Class &amp; Spatial Databases</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Data Modeling</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Data Modeling &amp; Geodatabases</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>ER Diagrams</td>
<td>PROPOSAL PITCHES</td>
</tr>
<tr>
<td>5</td>
<td>Database Normal Forms</td>
<td>PROPOSAL PRESENTATIONS</td>
</tr>
<tr>
<td>6</td>
<td>Structured Query Language (SQL)</td>
<td>MIDTERM 1</td>
</tr>
<tr>
<td>7</td>
<td>MS SQL Server</td>
<td>PROPOSAL STATUS REPORT I</td>
</tr>
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</table>

*I reserve the right to make changes to the course schedule*
### Course Schedule Cont.

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Exams</th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>Indexing &amp; Performance</td>
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</tr>
<tr>
<td>9</td>
<td>Enterprise Spatial Databases</td>
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<tr>
<td>10</td>
<td>Service Oriented Architectures</td>
<td>MIDTERM 2</td>
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<tr>
<td>11</td>
<td>Publishing &amp; Consuming Spatial Data</td>
<td>PROPOSAL STATUS REPORT II</td>
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<tr>
<td>12</td>
<td>Standards &amp; Metadata</td>
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<tr>
<td>13</td>
<td>Versioning &amp; Maintenance</td>
<td>NO CLASS (THANKSGIVING)</td>
</tr>
<tr>
<td>14</td>
<td>Legal Issues, Trends, and the Future of Spatial Databases</td>
<td>PROJECT PRESENTATIONS &amp; REPORT</td>
</tr>
<tr>
<td>TBD</td>
<td></td>
<td>FINAL EXAM</td>
</tr>
</tbody>
</table>

*I reserve the right to make changes to the course schedule*
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   □ Undergraduate  □ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):
   Department of Geography
   GEOG 668 Arctic Climates

3. Course prefix, number and complete title of course:

4. Catalog course description (not to exceed 50 words):
   Arctic climate system, physical characteristics and climatic features, the atmospheric energy budget, the atmospheric circulation, the surface energy budget, the hydrologic cycle, and the interactions between the atmosphere, Arctic Ocean, and its sea ice cover

5. Prerequisite(s):
   Graduate classification
   Cross-listed with:                                     Stacked with:
   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?  □ Yes  □ No  If yes, from ________ to ________

7. Is this a repeatable course?  □ Yes  □ No  If yes, this course may be taken ________ times.
   Will this course be repeated within the same semester?  □ Yes  □ No

8. Will this course be submitted to the Core Curriculum Council?
   □ Yes  □ No

9. How will this course be graded:  □ Grade  □ S/U  □ P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   Any master’s or doctoral program

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
   □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
   GEOG  668  Arctic Climates
   Freq.  Lab  Other  SCH  CIP and Earth Code  Admin. Unit  Acad. Year  ELCE Code
   3.00  0.00  □ Other  3.00  4004020002  1250  15  16  0  0  3  6  3  2

   Approval recommended by:
   □ David M. Cairns
   □ Department Chair (Type Name & Sign)  Date
   □ Chair, College Review Committee  Date
   □ Dean of College  Date
   □ Department Head or Program Chair (Type Name & Sign)  Date
   (if cross-listed course)

   Submitted to Coordinating Board by:
   □ Chair, GC or UCC  Date
   □ Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
GEOG 668: Arctic Climates
Spring 2016
Time: TBD, Room: TBD

Instructor:
Oliver W. Frauenfeld
862-8420 (phone)
oliverf@geog.tamu.edu (e-mail)
http://climatology.tamu.edu/

Office Hours:
Location: 814B O&M
Time: TBD
By appointment

Class Webpage: http://ecampus.tamu.edu/

Textbook:

Course Description:
The Arctic region plays a key role in affecting and driving global climate. Rapid changes are occurring within the Arctic, which will have impacts on physical, biological, and human systems both within and beyond the region. This course will provide a comprehensive evaluation of the Arctic climate system, including an overview of the basic physical characteristics and climatic features of the northern high latitudes. Emphasis will be given to the atmospheric energy budget, the atmospheric circulation, the surface energy budget, the hydrologic cycle, and the important interactions between the atmosphere, Arctic Ocean, and the sea ice cover. An assessment of recent climate variability and trends, and the future state of the Arctic will be discussed. For this course it is assumed that you already have a basic background in climate science and/or atmospheric science.

Learning Outcomes:
Students will be able to 1) describe the processes including interactions and feedbacks that drive the climate within the Arctic; 2) explain the importance of the cryosphere on both the Arctic and the globe as a whole; 3) relate Arctic climate processes to areas beyond the high latitudes, including to their own research; 4) critically evaluate Arctic climate research from the scientific literature; 4) analyze Arctic climate data using statistical techniques; 5) write a manuscript-style scientific manuscript describing their data-analysis project; 5) clearly and concisely communicate their research findings to the class.
### Course Outline:

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>01/20–01/23</td>
<td>Syllabus, Introduction, History of Arctic Exploration</td>
</tr>
<tr>
<td>Week 2</td>
<td>01/26–01/30</td>
<td>Six Degrees of Separation: Arctic teleconnections to middle and lower latitudes</td>
</tr>
<tr>
<td>Week 3</td>
<td>02/02–02/06</td>
<td>Basic Climate Setting of the Arctic: oceans, lands, climate elements</td>
</tr>
<tr>
<td>Week 4</td>
<td>02/09–02/13</td>
<td>Atmospheric Energy Budget</td>
</tr>
<tr>
<td>Week 5</td>
<td>02/16–02/20</td>
<td>Atmospheric Circulation: surface, troposphere, stratosphere, seasonality</td>
</tr>
<tr>
<td>Week 6</td>
<td>02/23–02/27</td>
<td>Surface Energy Budget</td>
</tr>
<tr>
<td>Week 7</td>
<td>03/02–03/06</td>
<td>Hydrologic Cycle</td>
</tr>
<tr>
<td>Week 8</td>
<td>03/09–03/20</td>
<td>Midterm</td>
</tr>
<tr>
<td></td>
<td>03/16–03/20</td>
<td>Spring Break—No Class</td>
</tr>
<tr>
<td>Week 9</td>
<td>03/23–03/27</td>
<td>Proposal Presentations</td>
</tr>
<tr>
<td>Week 10</td>
<td>03/30–04/03</td>
<td>Arctic Sea Ice</td>
</tr>
<tr>
<td>Week 11</td>
<td>04/06–04/10</td>
<td>Climate regions/regimes of the Arctic</td>
</tr>
<tr>
<td>Week 12</td>
<td>04/13–04/17</td>
<td>Recent Arctic Climate Changes</td>
</tr>
<tr>
<td>Week 13–14</td>
<td>04/20–05/01</td>
<td>Final Project Presentations</td>
</tr>
</tbody>
</table>

### Grading:

Please remember that your grades are not negotiable. Your grades are earned based on your performance, not given based on effort or need. Your grade reflects your performance in this course, not your potential as a student or a person. If you feel that I made a mathematical error when calculating your grade, please make an appointment or see me during my office hours.

- Midterm: 20%
- Final: 20%
- Research Paper: 30%
- Research Presentations: 10%
- Class Participation: 20%
The grading scale follows the Texas A&M University grading system:

- A = Excellent    ≥90%
- B = Good         80–89%
- C = Satisfactory  70–79%
- D = Passing      60–69%
- F = Failing      <60%

If it is warranted, the final grades will be calculated based on a curve. In no case will I ever curve the grades to your detriment—in this course, the curve only serves to potentially raise your final course grade.

**Exams (40%)**:

There will be two in-class examinations (20% each) during the semester: a midterm and a final. These exams will consist of essay-type questions. The exam questions will be based on the material presented in lecture, the journal readings, and discussions thereof. Class attendance is essential if you are to obtain the information necessary for the exams. If you miss class, the best strategy is to get the lecture notes from at least two of your classmates, copy them, make note of any confusing material, and see me with any questions that arise.

**Research Paper (30%)**:

You will need to write a research paper in the course of the semester, allowing you to apply the knowledge and skills attained from taking this course. This paper will be based on a topic of your choosing, and will of course relate to high-latitude climate. Even if your own research does not directly relate to high-latitude climate, I encourage you to think of some way to make it relevant to your research. The research paper will require you to perform a literature review of your topic, conduct data analysis, and summarize your findings in peer-reviewed manuscript style. More information about the paper will be provided in class.

**Research Presentations (10%)**:

You will be required to present both a project proposal and your final project to the class (5% each). Both presentations will be structured like a talk at a national conference, like the AAG meeting: you will have a 15 minute time slot to present your talk, followed by a few minutes for questions. You will have to use PowerPoint or other visual aids as part of your presentation. Both your classmates and your instructor will give you feedback and will evaluate your presentation.

**Class Participation (20%)**:

There will be weekly reading assignments comprised of journal articles from the scientific literature (see reading list). You will be required to complete the reading and come to class with a written critical peer-review (approximately one page per article). You will take turns and each article will be presented by one of you, who will also lead the class discussion of that article. The presentation will include a summary of the paper, and your thoughts/critique of it. Since everyone will read the same articles and bring their mini-reviews, everyone should be well prepared and will be expected to participate in the discussion. The 20% class participation grade is therefore split into 5% article reviews, 5% paper presentation, and 10% active participation.
Other Course Information:

E-mail
This is a great way to contact me if you have questions about the course or anything else. While I’m not suggesting this as a substitute for office visits, in many cases, simpler questions can be easily handled via e-mail. I will also be sending messages to you occasionally about the readings, exam information, studying hints, exciting climatological happenings, or mistakes I made in lecture. Please check your official @tamu.edu e-mail on a regular basis for potentially important announcements.

Class Attendance
“The university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments.” While I will therefore not require class attendance, it is imperative that you show up for each class. Exams will be based entirely on the classroom lectures, therefore attendance in mind and body is in your own best interest. University rules regarding attendance (e.g., excused absences) can be found at http://student-rules.tamu.edu/rule07.

Cellular Telephones
As a courtesy to the instructor and other students please turn all electronic noise-making devices to silent mode before class. I find it extremely impolite to be interrupted by a cellular telephone when I am lecturing. The same goes for texting; don’t do it.

Academic Integrity
Texas A&M has an Academic Integrity policy to which both students and faculty must comply. The Aggie Honor System Office all cases of academic misconduct. Details about the Aggie Honor Policy can be found at http://aggiehonors.tamu.edu/.

The materials used in this course are copyrighted and you therefore do not have the right to copy these materials unless permission is expressly granted.

Plagiarism is when you pass off someone else’s work (language or ideas) as your own. 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 that person. Plagiarism destroys the trust among colleagues without which research cannot be safely communicated.

For more information, see “Scholastic Dishonesty” under the Texas A&M University Student Rules: http://student-rules.tamu.edu.

Aggie Code of Honor: “An Aggie does not lie, cheat, or steal or tolerate those who do”
http://aggiehonors.tamu.edu/

University Writing Center (UWC)
The UWC is located on the second floor of Evans Library. It provides students with one-on-one consultations with a trained writing consultant. They can help you with all aspects of the writing process (e.g., how to start writing, how to proofread your work, how to write an introduction). Please call (458-1445), click (http://writingcenter.tamu.edu), or visit the UWC to make an appointment or to find out more about the services that they offer.

Americans with Disabilities Act (ADA)
The 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.
Preliminary Reading List (subject to change):

**Week 3, Basic Climate Setting of the Arctic:**


**Week 4, Atmospheric Energy Budget:**


**Week 5, Atmospheric Circulation:**


**Week 6, Surface Energy Balance:**


**Week 7: The Hydrologic Cycle:**


**Week 8–9: No Readings, Proposal Presentations**
Week 10: *Arctic Sea Ice:*


Week 11: *Arctic Sea Ice:*


Week 12: *Climate Regimes of the Arctic:*


Week 13: *Recent Climate Variability and Trends:*


Week 14: *Final Project Presentations*
Texas A&M University

Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:  
   - [ ] Undergraduate  
   - [ ] Graduate  
   - [ ] First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):  
   Department of Geography
   GEOG 676 GIS Programming
3. Course prefix, number and complete title of course:
4. Catalog course description (not to exceed 50 words):  
   Programming for Geographic Information System (GIS); Automation of GIS software; Integration of custom code as extensions into GIS software; Programmatic manipulation of GIS data.

5. Prerequisite(s):
   - Graduate classification
   - Cross-listed with:  
     - None
   - Stacked with:  
     - GEOG 392

6. Is this a variable credit course?  
   - [ ] Yes  
   - [ ] No
   - If yes, from _____ to _____
7. Is this a repeatable course?  
   - [ ] Yes  
   - [ ] No
   - If yes, this course may be taken _____ times.
8. Will this course be repeated within the same semester?  
   - [ ] Yes  
   - [ ] No
9. Will this course be submitted to the Core Curriculum Council?  
   - [ ] Yes  
   - [ ] No
10. How will this course be graded?  
    - [ ] Grade  
    - [ ] S/U  
    - [ ] P/F (CLMD)
11. This course will be:
    a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
12. M.S., Ph.D. in Geography
13. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
14. [ ] I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://wrp.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

<table>
<thead>
<tr>
<th>Prefix</th>
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<tr>
<td>GEOG</td>
<td>676</td>
<td>GIS Programming</td>
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<th>Lec.</th>
<th>Lab</th>
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<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
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<td>0 0 3 6 3 2</td>
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</tbody>
</table>

Approval recommended by:  
David M. Cairns, Dept. Head  
Department Head or Program Chair (Type Name & Sign)  
Date  
Chair, College Review Committee  
Date

Department Head or Program Chair (Type Name & Sign)  
(if cross-listed course)  
Date  
Dean of College  
Date

Submitted to Coordinating Board by:  
Chair, GC or UCC  
Date  
Associate Director, Curricular Services  
Date  
Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu
Curricular Services – 07/14
GIS Programming
GEOG 676

Instructor
Dr. Daniel Goldberg
Office: O&M 707F
Tel: 979-845-7141
Email: daniel.goldberg@tamu.edu
Office Hours: TBD
and by appointment

Teaching Assistants
TBD
Sections 500
Office: TBD
Email: TBD
Office Hours: TBD
Office Hours: TBD

Meeting Time and Locations

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Labs</th>
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<td>500 – TBD</td>
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<tr>
<td>Room: TBD</td>
<td>Room: TBD</td>
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</tbody>
</table>

Class web site
Updates to the lecture and lab syllabi as well as other course materials will be made available on the course website. It can be accessed on ELearning at http://elearning.tamu.edu.

Course Description
This class is an introduction to programming in general and an introduction to programming for Geographic Information Systems (GIS) in particular. This project-oriented course covers the guiding principles behind programming syntax and data structures, and how to apply these techniques to the development of custom standalone GIS programs and the integration of these into commercial GIS platforms. The course also includes an applied section where the student will identify a real-world “customer” and lead a team of undergraduates to complete a project.

Learning Outcomes
This course is designed to introduce students to the basics of programming with modern programming languages in the context of development for and with GIS. Students will learn how to apply this knowledge to develop custom GIS applications and extensions that solve real-world problems. This course will provide students with a solid foundation in fundamental programming techniques and the knowledge to apply these techniques within GIS programming domains.

The course will start with an introduction to fundamental programming structures and techniques and quickly advance to programming issues related to developing for GIS platforms including integration of their code into industry standard GIS platforms to extend the capabilities of these systems.
The course will include a lecture component where theoretical issues are covered and lab-based exercises where students have the opportunity to practice implementing these techniques in various programming languages including Python and C#.

This course will also include identification of and interaction with a real-world “customer” who needs GIS programming. Students will learn software project management skills while leading a team of undergraduate students and have the opportunity to interact with a real-world “customer” to experience the identification and translation of customer requirements into application development.

At the end of this class, each student will be able to:

1) Identify a set of requirements for the development of a software system;
2) Implement standalone programming projects in Python and C# to solve GIS problems;
3) Integrate custom code into ArcGIS that customizes, automates, and extents its functionality;
4) Programmatically access GIS data and use these data in GIS modeling, computation, visualization, and analysis;
5) Conceptualize, design, plan, implement, and document a custom GIS programming solution to a real-world problem; and
6) Lead a team of developers in the execution of a customer-driven programming project.

Textbooks and Readings

Lecture Texts


Additional readings and materials will be drawn from websites, handouts, and online resources.

GIS Software

This course will utilize the ArcGIS™ suite of software developed by ESRI. Installable copies may be obtained from the instructor or teaching assistants.

Development Software

This course will utilize the Python which is installed with ArcGIS. This course will also utilize Visual Studio 2012 which can be downloaded as a student education version from Microsoft.
Class Attendance

The university views class attendance as the responsibility of the individual student. Information on University attendance rules can be found at [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07). As described below, a portion of each student’s grade is based on in-class participation. This will be judged by the instructor as regular attendance and active engagement on a consistent basis that contributes to the class in some manner.

**Lab attendance** is not required, but considered essential for successful completion of the course.

Cellular Telephones

As a courtesy to the instructor and other students please turn off all cellular telephones before the class begins.

Email

All Texas A&M students should use their Texas A&M University email accounts when emailing the instructor and teaching assistants. I may also send out class announcements via the University email system as well. It is your responsibility to check your official TAMU email account regularly.

Grading

Your grade in this class will be based as described below:

A. **Lecture** 30%
   - Midterm 1 10%
   - Midterm 2 10%
   - Final Exam 10%

B. **Lab** 20%
   - Exercises 20%

B. **Homework** 5%
   - Exercises 5%

C. **Project** 40%
   - Project Proposal 10%
   - Project Status Report 1 2.5%
   - Project Status Report 2 2.5%
   - Final Project 25%

D. **Participation** 5%
   - Class Participation 5%
Grading Scale

The grading scale for this course is as follows:

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

An average performance in the class will earn a satisfactory grade.

Makeups for the Exam will be allowed only for University excused absences and will be administered in compliance with university rules. Excused absences are covered in the Texas A&M University Student Rules (http://student-rules.tamu.edu)

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Final Project

Throughout the semester, graduate students lead a team of up to 4 undergraduate students to apply the GIS programming concepts learned in lectures with the hands-on experience gained in labs to solve a “real-world” problem using GIS programming. Graduate students will be responsible for identifying a “customer” who needs a GIS program developed to extend or automate a commercial GIS platform (e.g., ArcGIS). Graduate students will work with the customer to identify the requirements for the system, supervise the undergraduate team members, and assist in the successful development of the final product.

Proposal Pitches

Each graduate student will present a 5 minute presentation of their idea for a project to the class. This will include enough details to recruit undergraduate students to work on the grad student’s project. Undergraduate students will choose project teams based on their willingness to work on the project pitched by the graduate student. Graduate students who receive an insufficient number of students to complete their project will work on another graduate student's project.

Project Proposal

Each student group will submit a 1-page synopsis of the proposed topic and present a 5 minute description. This synopsis will include the problem the group will attempt to address including a set of requirements, the methods and data that will be used to accomplish their goals, and a development roadmap. The graduate student will be responsible for communicating with the “customer” to ensure that the project can be completed within the timeframe and expertise of the project team, and that the end product will responsive to the needs of the “customer”.

Project Status Reports

Each student group will present two short presentations during the semester that outline project progress. Students will be graded based on progress toward project completion.

Project Deliverables

Each student group will a) deliver their project code and necessary data as an installable program; b) deliver a report summarizing the problem they were trying to address, the tools and data used to accomplish their goals, and reflections on how well their implementation meets the requirements set forth; and c) demonstrate a hands-on working version of their prototype to the class during a project presentation.

Project Grading
Each graduate student will be graded on the quality of the team project. In addition, each graduate student will provide a score for each of the team members that reflects each team member’s contribution to the overall project. Students are advised to consult with the teaching assistant and/or professor in advance if issues of team member performance becomes an issue.

**Labs**

Labs are an important and integral portion of the course. There is simply no way to learn about GIS programming without spending considerable time in lab working on GIS programming problems. While the scheduled lab time is two hours, labs will typically require time outside of the scheduled lab hours to complete.

Labs will be due at the beginning of the following lab unless otherwise indicated. Scores for late labs will be deducted 10% per day until they are turned in, up to one week. After one week late, labs will not be accepted for credit. It is your responsibility for keeping up with lab assignments. You should talk to your Teaching Assistant and or the instructor BEFORE late labs become a problem.

**Scholastic Dishonesty**

It is our hope that academic dishonesty will not be a problem in this class. Texas A&M does, however, have a Scholastic Dishonesty policy to which both students and faculty must comply. If you have any questions about the University’s Scholastic Dishonesty policy please review the Student Rules or see me. The Aggie Honor program is the new program that will handle all cases of academic dishonesty. [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor)

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 is 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 plagiarism, please consult the latest issue of the Texas A&M University Student Rules, [http://student-rules.tamu.edu](http://student-rules.tamu.edu), under the section “Scholastic Dishonesty.”

> *Aggies don’t lie, cheat, or steal, nor tolerate those that do*

**Student Support**

*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.
Student Resources

Services for Students with Disabilities
Room B118 of Cain Hall, 845-1637 or on the web at http://disability.tamu.edu/

There are numerous other student support organizations on campus including

Student Counseling Service
Cain Hall, 845-4427, http://scs.tamu.edu
Student Counseling Helpline 5:00pm-8:00am: 845-2700

University Writing Center

Course Schedule follows on the next page
<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Exams</th>
<th>Proposal Pitches</th>
<th>Proposal Presentations</th>
<th>Midterm 1</th>
<th>Proposal Status Report 1</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to the Class &amp; GIS Programming</td>
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<td>2</td>
<td>Programming Environments</td>
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<td>3</td>
<td>Syntax &amp; Data Structures</td>
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<td>4</td>
<td>Controls &amp; Functions</td>
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<td>5</td>
<td>Object Oriented Programming</td>
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<td>6</td>
<td>Object Oriented Programming</td>
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<td>7</td>
<td>Computing with Data</td>
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I reserve the right to make changes to the course schedule.
### Course Schedule Cont.

<table>
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<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Exams</th>
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<tbody>
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<td>Programming for GIS</td>
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<td>9</td>
<td>GIS Automations</td>
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<td>10</td>
<td>GIS Customizations</td>
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<tr>
<td>11</td>
<td>GIS Extensions</td>
<td>MIDTERM 2</td>
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<tr>
<td>12</td>
<td>Consuming &amp; Distributing Code</td>
<td>PROPOSAL STATUS REPORT II</td>
</tr>
<tr>
<td>13</td>
<td>Principles and Practices of Software Development</td>
<td>NO CLASS (THANKSGIVING)</td>
</tr>
<tr>
<td>14</td>
<td>Future of GIS Programming</td>
<td>PROJECT PRESENTATIONS &amp; REPORT</td>
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<tr>
<td>TBD</td>
<td></td>
<td>FINAL EXAM</td>
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</tbody>
</table>

*I reserve the right to make changes to the course schedule*
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: □ Undergraduate  □ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Geography
   GEOG 678 WebGIS
3. Course prefix, number and complete title of course:

4. Catalog course description (not to exceed 50 words):
   Internet architectures; Setup, management, and maintenance of web-based Geographic Information System (WebGIS) servers, data, and services; Use of WebGIS data and services in the creation of custom web-based maps; Analysis of WebGIS system architecture, design, and implementation.

5. Prerequisite(s):
   Graduate classification
   Cross-listed with: None
   Stacked with: GEOG 478
   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course? □ Yes  □ No  If yes, from _____ to _____
7. Is this a repeatable course? □ Yes  □ No  If yes, this course may be taken _____ times.
   Will this course be repeated within the same semester? □ Yes  □ No
8. Will this course be submitted to the Core Curriculum Council? □ Yes  □ No
9. How will this course be graded? □ Grade  □ S/U  □ P/F (CLMD)
10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      M.S., Ph.D. in Geography

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-control/export-control-basics-for-distance-education).
13. Prefix Course # Title (excluding punctuation)

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<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
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Approval recommended by:

David M. Cairns, Dept. Head
Department Head or Program Chair (Type Name & Sign) Date
11/11/14

Chair, College Curriculum Committee
Date
11/7/2014

Dean of College
Date

Submitted to Coordinating Board by:

Chair, GC or UCC
Date

Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
WebGIS
GEOG 678

Instructor
Dr. Daniel Goldberg
Office: O&M 707F
Tel: 979-845-7141
Email: daniel.goldberg@tamu.edu
Office Hours: TBD
and by appointment

Teaching Assistants
TBD
Sections 500
Office: TBD
Email: TBD
Office Hours: TBD
Office Hours: TBD

Meeting Time and Locations
Lecture
Time: TBD
Room: TBD
Labs
500 – TBD
Room: TBD

Class web site
Updates to the lecture and lab syllabi as well as other course materials will be made available on the course website. It can be accessed on ELearning at http://ecampus.tamu.edu.

Course Description
This class is an introduction to web-based Geographic Information Systems (WebGIS). This lab-oriented course covers server-oriented architectures and their application in creating web-based GIS applications and services. This course introduces students to web server, service, and database setup, management and utilization in the development of data-rich WebGIS applications.
Learning Outcomes

This course is designed to introduce students to the basics of producing, managing, and consuming web-based Geographic Information Systems (WebGIS) in the context of server-oriented architectures (SOA). Through hands-on experience, students will learn to setup, administer, and utilize industry-standard WebGIS platforms including Esri ArcServer and Microsoft SQL Server. This course will provide students with a solid foundation in the installation and use of WebGIS databases and services as well as a basic knowledge of how to utilize these in the development of web maps.

The course will start with an introduction to fundamental Internet architectures used in production-level WebGIS platforms. The course will next cover hands-on installation, publishing, and management of industry-standard WebGIS platforms, services, and data. Finally, students will learn and employ introductory JavaScript programming to integrate their WebGIS databases and services within custom-developed web-based maps using commercially-available and commonly-used web-mapping application programming interfaces (APIs). The course will include a lecture component where theoretical issues are covered and lab-based exercises where students have the opportunity to practice setting up, managing, and implementing these techniques and technologies.

At the end of this class, each student will be able to:

1) Identify a set of requirements for implementing WebGIS servers and services;
2) Setup and administer industry-standard WebGIS servers;
3) Publish and consume data and services to and from WebGIS servers;
4) Programmatically access GIS data and services from WebGIS servers and use these in the production of web-based maps; and
5) Critically assess design and implementation patterns for deploying WebGIS systems within a larger CyberGIS environment;
6) Conceptualize, design, plan, implement, and document a custom WebGIS solution to a real-world problem; and
7) Interact with a real-world client to identify a set of requirements for a WebGIS project and lead a team of students in the design, execution, and evaluation of the project.

Textbooks and Readings

Lecture Texts


Additional readings and materials will be drawn from websites, handouts, and online resources.
GIS Software
This course will utilize the ArcGIS™ suite of software developed by ESRI including ArcServer and Python. Installable copies may be obtained from the instructor or teaching assistants.

Database Software
This course will utilize the Microsoft SQL Server™ suite of software. Installable copies may be downloaded from the Microsoft Dream Spark program available to TAMU students.

Development Software
This course will utilize the JavaScript, Python, and C# programming languages which can be developed with basic text editing software and/or with Microsoft Visual Studio which can be downloaded for free from DreamSpark

Class Attendance
The university views class attendance as the responsibility of the individual student. Information on University attendance rules can be found at http://student-rules.tamu.edu/rule07. As described below, a portion of each student's grade is based on in-class participation. This will be judged by the instructor as regular attendance and active engagement on a consistent basis that contributes to the class in some manner.

Lab attendance is considered essential for successful completion of the course.

Grading
Your grade in this class will be based equally on the lecture and labs as described below

A. Lecture  30%
    Midterm 1  10%
    Midterm 2  10%
    Final Exam 10%

B. Lab  20%
    Exercises  20%

B. Homework  5%
    Exercises  5%

C. Project  40%
    Project Proposal  10%
    Project Status Report 1  2.5%
    Project Status Report 2  2.5%
    Final Project  25%

D. Participation  5%
    Class Participation  5%

The grading scale for this course is as follows: ≥90% A, 80-89% B, 70-79% C, 60-69% D, <60% F
Final Project

Throughout the semester, undergraduate students will work in teams of up to 2 along with one or more graduate students to apply the WebGIS concepts learned in lectures with the hands-on experience gained in labs to solve a “real-world” problem using WebGIS. Each project will be based on the needs of a “customer” who will provide a project idea. Groups will be expected to meet with the “customer” regularly throughout the semester.

Proposal Pitches

Each graduate student will identify a “customer” who will provide a project idea. Each graduate student will present a 5 minute presentation of their idea for a project to the class. This will pitch will include enough details to recruit undergraduate students to work on the grad student’s project. Undergraduate students will choose project teams based on their willingness to work on the project pitched by the graduate student. Graduate students who receive an insufficient number of students to complete their project will work on another graduate student’s project.

Project Proposal

Each student group will submit a 1-page synopsis of the proposed topic and present a 5 minute description. This synopsis will include the problem the group will attempt to address including a set of requirements, the methods and data that will be used to accomplish their goals, and a development roadmap for implementing the project.

Project Presentations

Each student group will present their project three times. The first is the project pitch; the second is a project status presentation; the third is the final project presentation.

Project Status Reports

Each student group will present two short presentations during the semester that outline project progress. Students will be graded based on progress toward project completion.

Project Deliverables

Each student group will a) host their project code and necessary data and set of WebGIS services and accompanying online maps, data, and/or services; b) deliver a report summarizing the problem they were trying to address, the tools and data used to accomplish their goals, and reflections on how well their implementation meets the requirements set forth; and c) demonstrate a hands-on working version of their prototype to the class during a project presentation.

Grading

Each student will be graded on the quality of the team project. In addition, each student’s grade will be based in part on a score they receive from their teammates evaluating their contribution to the overall project. Students are advised to consult with the teaching assistant and/or professor in advance if issues of team member performance becomes an issue.
Labs

Labs are an important and integral portion of the course. There is simply no way to learn about WebGIS setup, programming, or maintenance without spending considerable time in lab working on with these data and services. While the scheduled lab time is two hours, labs will typically require time outside of the scheduled lab hours to complete.

Labs will be due at the beginning of the following lab unless otherwise indicated. Late labs will not be accepted for credit. It is your responsibility for keeping up with lab assignments. You should talk to your Teaching Assistant and or the instructor BEFORE late labs become a problem.

Homework Assignments

Small homework assignments will be assigned each week along with a series of online training documents which supplement the materials presented in class.

Homework assignments will be due as indicated on the homework assignment. Late homework assignments will not be accepted for credit. It is your responsibility for keeping up with homework assignments. You should talk to your Teaching Assistant and or the instructor BEFORE late homework assignments become a problem.

Scholastic Dishonesty

It is our hope that academic dishonesty will not be a problem in this class. Texas A&M does, however, have a Scholastic Dishonesty policy to which both students and faculty must comply. If you have any questions about the University’s Scholastic Dishonesty policy please review the Student Rules or see me. The Aggie Honor program is the new program that will handle all cases of academic dishonesty. http://aggiehonor.tamu.edu

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 plagiarism, please consult the latest issue of the Texas A&M University Student Rules, http://student-rules.tamu.edu, under the section “Scholastic Dishonesty.”

"Aggies don’t lie, cheat, or steal, nor tolerate those that do"
Cellular Telephones
As a courtesy to the instructor and other students please turn off all cellular telephones before the class begins.

Email
All Texas A&M students should use their Texas A&M University email accounts when emailing the instructor and teaching assistants. I may also send out class announcements via the University email system as well. It is your responsibility to check your official TAMU email account regularly.

Student Support
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.

Services for Students with Disabilities
Room B118 of Cain Hall, 845-1637 or on the web at http://disability.tamu.edu/

There are numerous other student support organizations on campus including

Student Counseling Service
Cain Hall, 845-4427, http://scs.tamu.edu
Student Counseling Helpline 5:00pm-8:00am: 845-2700

University Writing Center

Makeups
Makeups for the Exam and other work will be allowed only for University excused absences and will be administered in compliance with university rules. Excused absences are covered in the Texas A&M University Student Rules (http://student-rules.tamu.edu)
<table>
<thead>
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<th>Week</th>
<th>Class Topics</th>
<th>Exam</th>
<th>Project Assignment Due*</th>
<th>Lab</th>
<th>Training</th>
<th>Homework Assignment Due*</th>
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<td>Introduction to the Class &amp; WebGIS</td>
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<td>Computer Forms</td>
<td>Code Academy</td>
<td>HTML I</td>
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<td>WebGIS Environments &amp; Architectures</td>
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<td>Server Connections &amp; Basic HTML &amp; GitHub</td>
<td>Code Academy</td>
<td>Javascript I</td>
<td>HTML</td>
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<td>Code Academy</td>
<td>Javascript II</td>
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<td>Exam Solutions, SQL Server &amp; Data Modeling</td>
<td>Proposal Presentations</td>
<td>Javascript, Jquery &amp; Data</td>
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<td>(Arc)GIS Servers, Services, Mapping &amp; ArcGIS.com</td>
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<td>SQL Server Setup &amp; Data Modeling</td>
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I reserve the right to make changes to the course schedule
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<th>Lab</th>
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I reserve the right to make changes to the course schedule.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus.*

Form Instructions:
1. Course request type:
   - [ ] Undergraduate
   - [ ☑ ] Graduate
   - [ ] First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Department of Performance Studies

3. Course prefix, number and complete title of course:
   PERFS25: Latino/a Expressive Culture

4. Catalog course description (not to exceed 50 words):

   Explores how issues concerning Latinos, including race and ethnicity, religion, border politics, immigration, the drug war, family, gender, and sexuality, are reflected and debated through expressive forms of performance such as theater, comedy, music, folklore, and performance art.

5. Prerequisite(s):
   Acceptance into the MA in Performance Studies Program or permission of the instructor.

6. Is this a variable credit course?
   - [ ] Yes
   - [ ☑ ] No
   If yes, from _______ to _______

7. Is this a repeatable course?
   - [ ] Yes
   - [ ☑ ] No
   If yes, this course may be taken _______ times.
   Will this course be repeated within the same semester?
   - [ ] Yes
   - [ ☑ ] No

8. Will this course be submitted to the Core Curriculum Council?
   - [ ] Yes
   - [ ☑ ] No

9. How will this course be graded?
   - [ ☑ ] Grade
   - [ ] S/U
   - [ ] P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in History)
   b. elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in Geography)

11. MA in Performance Studies

12. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

13. Prefix  Course #  Title (excluding punctuation)
    PERFS  625  Latino/a Expressive Culture

   Lect. Lab Other SCH CIP and Fund Code Admin. Unit Acad. Year EICE Code
   03 00 03 5001010003 2196 15 - 16 0 0 3 6 3 2

   Approval recommended by:
   Donnalene Dix
   Department Head or Program Chair (Type Name & Sign) Date
   Chair, College Review Committee Date
   Dean of College Date

   Submitted to Coordinating Board by:
   Chair, GC or UCC Date

   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
PERF 625: Latino/a Expressive Culture
Fall/Spring Semester 20xx

Instructor: Dr. Kim Kattari
Email: kkattari@tamu.edu
Office: LAAH 272 (Liberal Arts and Humanities)
Office hours: Th 1:00-2:00 PM
Department phone number: 979-845-3355

Course Number: PERF 625
Course Time: TBD
Classroom: LAAH 227

PREREQUISITE

Acceptance into the MA in Performance Studies Program or permission of the instructor.

CLASS DESCRIPTION

As of the 2013 census, there are 54 million Hispanics living in the United States, comprising the nation’s largest ethnic minority. How has this significant demographic been represented in popular media and culture? And how have Latinos represented themselves and negotiated their own sense of identity? Using a performance studies lens, this course explores national and transnational expressive practices by and about Latinos. We will consider how representations of Latinos in the public sphere have been shaped by historical contexts and how issues concerning Latinos in the United States, including race and ethnicity, religion, border politics, immigration, the drug war, family, gender and sexuality, and class, are reflected and debated through theater, comedy, music, folklore, performance art, and other expressive forms. This allows us the opportunity to unpack the relationship between cultural production, circulation, and reception as we reflect on different venues and avenues for mediating identity and experience.

LEARNING OUTCOMES

Become familiar with diverse examples of Latino/a expressive and performative practices.

Analyze the ways in which issues concerning Latinos are reflected in and negotiated through various expressive forms.
Employ theoretical perspectives and research methods used in the academic field of performance studies, and apply theoretical frameworks or case studies to one's own research and performance interests.

Strengthen critical reading skills and further develop one's ability to synthesize and communicate complex ideas through written and oral forms.

**REQUIRED MATERIALS**


Other required readings will be available through library databases or Course Reserves.

**ASSIGNMENTS**

**Reading Summaries, 30 points (30%)**: For each topic, write a short summary of the readings that have been assigned to you. Your summary should address the main point of the author's argument or topic, make connections to other theories or case studies we've discussed, consider its relevance in terms of your own research or performance interests, and suggest questions or topics for class discussion. Since your classmates may be reading different works than you, this will prepare you to give a brief synopsis of the work, its significance, and the issues it raises. Summaries should be 1 to 1 ½ single-spaced, typed pages, and are due at the beginning of class. Include a works cited section if you refer to other works. Late reading summaries will only be accepted in the event of an excused absence, according to Student Rule 7: [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07).

**Attendance and Participation, 10 points (10%)**: Active engagement in graduate seminars prepares you to effectively participate in the broader academic community. Class is a supportive environment in which to grapple with complex ideas, consider different perspectives, and practice communicating your viewpoint as an analytic and informed scholar. In order to do so, be prepared by having completed the readings assigned to you and think critically about them before class, arriving ready to discuss the topic. Bring your readings to class. We will foster a respectful space in which to both speak and listen.

**Performance or Performance Report, 25 points (25%)**: You will choose one specific Latino/a performance piece to either participate in or attend. You will discuss the piece and share your experience of it in class during Week Eight. You will also be expected to proffer an analysis of the piece as it relates to the themes and readings we've discussed in class by that point. You will turn in a written report addressing these aspects. As an alternative to experiencing someone else's piece, you could choose to create your own performance piece that addresses the Latino/a experience in the United States as it pertains to the topics covered in class.
Research Paper, 35 points (35%): You will complete a research paper on a theme negotiated or expressed through Latino/a performance practice(s). Conduct research on at least three different pieces or expressive forms that address the theme, topic, or issue. Your essay should engage with the theories discussed in class as well as other research. Research papers must be 7000-7500 words. Rough drafts are due Week 15, and you will also present your original research and analysis in class that week. Final papers are due on the first Monday of final exams.

Grade Equivalency:
100-90 POINTS  A
89-80 POINTS  B
79-70 POINTS  C
69-60 POINTS  D
>59 POINTS  F

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 and written assignments. 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.

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.

For those taking exams at the Disability Services Office, please remind me at least a week before the exam to send the test and listening examples over to their office. For the final exam, you will need to schedule a time to take the listening portion of the exam with me.
SCHEDULE OF TOPICS AND READINGS

Week One: Introduction

Week Two: Latino/a Cultural Studies
Reading Summary 1 Due


Week Three: The Poetics and Politics of Latino Identity in the Popular Media
Reading Summary 2 Due


Week Four: Community Spaces
Reading Summary 3 Due


Screen: Casita Clip in *Americanos*

**Week Five: Theater and Stage**
Reading Summary 4 Due


**Week Six and Seven: Performance Art**
Reading Summary 5 Due on Week 7


Screen: The Couple in the Cage

Screen Carmelita Tropicana: Your Kunst Is Your Waffen

Week Eight: Performances or Performance Report Presentations

Week Nine: Art and Murals
Reading Summary 6 Due


Week Ten: Latin@ Bodies
Reading Summary 7 Due


Weeks Eleven and Twelve: Writing and Re-writing Identity Through Music
Reading Summary 8 Due Week 12


Week Thirteen: The Border, The Drug War, and Narcocorridos
Reading Summary 9 Due


Week Fourteen: Humor, Comedy, and Joking
Reading Summary 10 Due


Week Fifteen: Presentation of Research Papers
Research Paper Drafts Due

Research Papers Due the 1st Monday of Final Exam Week
COURSE READINGS AND DOCUMENTARIES


Documentaries:
Hi, Tiffany:

I have just heard from our faculty member with special expertise in performance and she is enthusiastic about the course.

Hence, HISP is on the record as approving at the GIC level the proposed PERF 625 Latino/a Expressive Culture course.

Steve
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus.*

Form Instructions
1. Course request type:  □ Undergraduate  ☑ Graduate  □ First Professional (DDS, MD, JD, PharmD, EVM)
2. Request submitted by (Department or Program Name):
   Petroleum Engineering
3. Course prefix, number and complete title of course:
   PETE 639-High Performance Drilling Design and Operational Practices

4. Catalog course description (not to exceed 50 words):
   Achieving differentiating drilling performance in most complex wells; includes physics of each type of performance
   limiter, real time operational practices, engineering redesign practices, and effective workflows to achieve the required
   change in engineering and operational practices.

5. Prerequisite(s):
   Graduate classification, PETE 661 or PETE 355 or approval of instructor
   Cross-listed with:  Stacked with: PETE 406
   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?  □ Yes  ☑ No  If yes, from _______ to _______
7. Is this a repeatable course?  □ Yes  ☑ No  If yes, this course may be taken ______ times.
   Will this course be repeated within the same semester?  □ Yes  ☑ No
8. Will this course be submitted to the Core Curriculum Council?  □ Yes  ☑ No
9. How will this course be graded?  ☑ Grade  □ S/U  □ P/F (CLMD)
10. This course will be:
    a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
       M. S. in Petroleum Engineering, Masters of Engineering

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. ☑ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    PETE  639  HP DRIL DES & OPER PRACS

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Approval recommended by:

Department Head or Program Chair (Type Name & Sign)  Date  Chair, College Review Committee  Date
A.D. Hill
Department Head or Program Chair (Type Name & Sign)  Date  Dean of College  Date

Submitted to Coordinating Board by:

Chair, GC or UCC  Date  Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Course title and number  PETE 639: High Performance Drilling and Operational Practices
Term (e.g., Fall 200X)  Spring 2015
Meeting times and location:  RICH 106 MWF 3:00-3:50 pm
Instruction  Resident students and distance learning

Course Description and Prerequisites

The purpose of this course is to prepare the student to be able to achieve differentiating drilling performance in the most complex wells. The physics-based practices taught represent the state of the art in high-performance drilling. This includes the underlying physics of each major type of performance limiter, real-time operational practices, engineering redesign practices, and effective workflows for achieving the required change in engineering and operational practices.

Prerequisites

Graduate classification
PETE 661 or 355

Instructor approval, if prerequisites are not met.

Learning Outcomes and Course Objectives

The objective of the class is to teach physics-based practices that will enable the student to achieve differentiating performance as a drilling engineer.

Instructor Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Fred Dupriest, Professor of Engineering Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone number</td>
<td>713-548-7927 (C)</td>
</tr>
<tr>
<td>Email address</td>
<td><a href="mailto:fred.dupriest@pe.tamu.edu">fred.dupriest@pe.tamu.edu</a></td>
</tr>
<tr>
<td>Office hours</td>
<td>M 12:00-3:00, WF 10:00-11:30 am &amp; 4:00-5:00 pm</td>
</tr>
<tr>
<td>Office location</td>
<td>501L Richardson Building</td>
</tr>
</tbody>
</table>

Fred Dupriest retired in 2012 as the Chief Drilling Engineer for ExxonMobil. He has published 20 papers on new operational practices to enhance drilling performance. These include design and operational practices to that maximize bit performance using mechanical specific energy (MSE) surveillance, elimination of differential sticking, improve borehole stability management, reduce vibrations, and enhance lost circulation and well control management. He was instrumental in developing Fast Drill™ and Limiter Redesign™ performance management workflows. He is an inductee in the AADE Drilling Fluids Hall of Fame and received the 2012 SPE Drilling Engineering Award.

Textbook and/or Resource Material

The main source of material for the course will be presentation slides and other reference material posted on a shared class site.
Grading Policies

Homework........................................................................................................15%
Group Project....................................................................................................10%
3 Non-comprehensive Exams.............................................................................75%
Total..................................................................................................................100%

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

Course Topics, Calendar of Activities, Major Assignment Dates

Homework will be submitted on Wednesdays and returned on Fridays (10 homework assignments). Three exams will be given, which are not comprehensive. A relatively brief group project will be due two weeks prior to the end of the semester which allows the student to practice the steps required to implement change in how an organization works. The class will be recorded and recordings may be accessed by both distance learning and resident students. Resident students are expected to attend class, and late work will not be accepted without prior approval for the delay (http://student-rules.tamu.edu/rule07).

Significant Dates:
Exam #1 Week 6, February 23
Exam #2 Week 11, Mar 30
Exam #3 Week 16, May 7-12 As per finals schedule
Project Due Week 14, April 29

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Syllabus, Business Models, and Performance Management Workflows</th>
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<tr>
<td>Week 2</td>
<td>Basic Bit Mechanics and Rock Strength</td>
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<tr>
<td>Week 3</td>
<td>Bit Balling and General Vibrations</td>
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<td>Week 4</td>
<td>Whirl Vibrations</td>
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<td>Week 5</td>
<td>Workflows to Create Change</td>
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<td>Week 6</td>
<td>Exam #1, Stickslip Vibrations</td>
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<td>Week 7</td>
<td>Stickslip, Axial, Interfacial Severity and Bottom Hole Balling Dysfunctions</td>
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<td>Week 8</td>
<td>Borehole Management</td>
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<td>Week 9</td>
<td>Spring Break</td>
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<td>Week 10</td>
<td>Borehole Management</td>
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<tr>
<td>Week 11</td>
<td>Exam #2 and Filtercake Morphology</td>
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<td>Week 12</td>
<td>Differential Sticking and Hole Cleaning</td>
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<tr>
<td>Week 13</td>
<td>Hole Cleaning</td>
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<tr>
<td>Week 14</td>
<td>Group Project Due, Formation Integrity Testing and Lost Circulation</td>
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<tr>
<td>Week 15</td>
<td>Discussion of Group Project and Reading Days</td>
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<tr>
<td>Week 16</td>
<td>Exam #3</td>
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Americans with Disabilities Act (ADA)

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

Academic Integrity

For additional information please visit: http://aggiehonor.ramu.edu

"An Aggie does not lie, cheat, or steal, or tolerate those who do."
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   - ☐ Undergraduate
   - ☑ Graduate
   - ☐ First Professional (DDS, MD, JD, PharmD, DPM)

2. Request submitted by (Department or Program Name):
   Physics and Astronomy
   PHYS 647: Gravitational Physics

3. Course prefix, number and complete title of course:

4. Catalog course description (not to exceed 50 words):
   Special relativity; equivalence principle; theory of gravitation; Einstein's theory of general relativity; classic tests of general relativity; simple black hole and cosmological solutions; global aspects; penrose diagrams; stationary black holes; Hawking radiation.

5. Prerequisite(s):
   PHYS 611 and 615

6. Cross-listed with:
   N/A

7. If this is a variable credit course? ☐ Yes ☑ No
   If yes, from _____ to _____

8. Is this a repeatable course? ☐ Yes ☑ No
   If yes, this course may be taken _____ times.

9. Will this course be repeated within the same semester? ☐ Yes ☑ No

10. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☑ No

11. How will this course be graded? ☑ Grade ☐ S/U ☐ P/F (CLMD)

12. This course will be:
   - ☑ required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   - ☐ an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   MS, PhD in physics

13. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

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15. Prefix Course # Title (excluding punctuation)

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Approval recommended by:

George R Welch

12 Nov 2014

Chair, College Review Committee

12-1-14

Department Head or Program Chair (Type Name & Sign)

Date

Department Head or Program Chair (Type Name & Sign) (if cross-listed course)

Date

Submitted to Coordinating Board by:

Chair, GC or UCC

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Instructor
Dr. Christopher Pope
pope@physics.tamu.edu
979.845.7793

Course (catalog) description

Prerequisites
PHYS611 & PHYS615

Texts
recommended
Gravitation and Cosmology by S. Weinberg
Publisher: John Wiley & Sons
ISBN-10: 0471925675

recommended
The Large Scale Structure of Space-time by S.W. Hawking and G.F.R Ellis
Publisher: Cambridge University Press
ISBN-10: 0521099064

recommended
General Relativity by R.M. Wald
Publisher: Chicago University Press
ISBN-10: 0226870332

Grading
50% homework assignments
50% two (2) exams
A = 90% or higher
B = 80%-90%
C = 60%-80%
D = 50%-60%
F = < 50%
See http://student-rules.tamu.edu/rule07 for information on University-excused absences.
Topics & Weekly schedule

1. Weeks 1-2: Special Relativity
   a. Vectors and tensors
   b. Lorentz transformations
   c. 4-velocity and 4-momentum
   d. Electrodynamics
   e. Energy-momentum tensor

2. Weeks 3-6: General Relativity
   a. Equivalence principle
   b. Vector and tensor analysis
   c. Metric, affine connection, covariant derivative, curvature
   d. Einstein field equations
   e. Particle dynamics
   f. Electrodynamics in curved spacetime

Exam #1 will be held at the start of Week 7

3. Weeks 7-8: Simple solutions and experimental tests
   a. Schwarzschild solution
   b. Deflection of light, radar echo delay, advance of orbital perihelion
   c. Cosmological solutions
   d. Gravitational waves

4. Weeks 9-11: Global spacetime structure
   a. Spatial, timelike and null infinity
   b. Penrose diagrams

5. Weeks 12-14: Black holes
   a. Static and stationary black holes
   b. Kerr-Newman black hole
   c. Hawking radiation by black holes

Exam #2 will be held during finals week

ADA statement

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Academic integrity

Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: □ Undergraduate □ Graduate □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Physics and Astronomy
3. Course prefix, number and complete title of course: PHYS 651: Superstring Theory I
4. Catalog course description (not to exceed 50 words):
   Basics of string theory, including bosonic string, conformal field theory, strings with worldsheet and space-time supersymmetry, as well as the higher dimensional extended objects call D-branes.

5. Prerequisite(s): PHYS 634 and 653 required; PHYS 647 recommended
   Cross-listed with: N/A
   Stacked with: N/A
   Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course? □ Yes □ No
   If yes, from _______ to _______
7. Is this a repeatable course? □ Yes □ No
   If yes, this course may be taken _______ times.
   Will this course be repeated within the same semester? □ Yes □ No
8. Will this course be submitted to the Core Curriculum Council? □ Yes □ No
9. How will this course be graded? □ Grade □ S/U □ P/F (CLMD)
10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   MS, PhD in physics

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-control-basics-for-distance-education).

13. Prefix 

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Admin. Unit: 2304
Acad. Year: 16
HCE Code: 3 6 3 2

Approval recommended by:
George R. Welch
Date: 12-Nov-2014

Department Head or Program Chair (Type Name & Sign)
Date: 12-1-14

Chair, College Review Committee
Date: 12-1-14

Department Head or Program Chair (Type Name & Sign)
(If cross-listed course)
Date

Dean of College
Date

Submitted to Coordinating Board by:
Chair, GC or UCC
Date

Associate Director, Curricular Services
Date
Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Instructor
Dr. Melanie Becker
mbecker@physics.tamu.edu
979.458.7912

Course (catalog) description
Superstring theories unify quantum theory and gravity. Rather than point particles, the fundamental objects to be quantized are one-dimensional objects moving through space-time. In this course, the basics of string theory are covered. More explicitly, this course covers the bosonic string, conformal field theory, strings with worldsheet and space-time supersymmetry, as well as higher dimensional extended objects, the so called D-branes. String Theory II will cover recent developments in the field of superstring theory.

Prerequisites
Quantum Field Theory (PHYS 634), Introduction to Supersymmetry & Supergravity (PHYS 653). Knowledge of Gravitational Physics (PHYS 647) is useful.

Texts
Required
String Theory: A Modern Introduction
by K. Becker, M. Becker and J. H. Schwarz
publisher: Cambridge University Press; first edition, 2007

Grading
Homework 100%
A = 90% or higher
B = 80%-90%
C = 60%-80%
D = 50%-60%
F = < 50%

See http://student-rules.tamu.edu/rule07 for information on University-excused absences.

Topics & Weekly schedule
(1) Weeks 1 & 2: The bosonic string
(2) Weeks 3 – 5: Conformal field theory in two and higher dimensions
(3) Weeks 6 – 8: Strings with worldsheet supersymmetry; boundary conditions, canonical quantization of the RNS string and light cone gauge quantization
(4) Weeks 9 & 10: Strings with space-time supersymmetry; supersymmetric string action and kappa symmetry, quantization of the GS action in light cone gauge; superstring spectrum; gauge anomalies
(5) Weeks 11 & 12: T-duality and D-branes; Type I,II superstring theories, worldvolume actions for D-branes and T-duality in the presence of background fields
(6) Weeks 13 & 14: The SO(32) and E8xE8 heterotic string; non-abelian gauge symmetry in string theory, toroidal compactifications
ADA statement
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Academic integrity
The Aggie Honor Code is “An Aggie does not lie; cheat, or steal or tolerate those who do.” For more information, refer to the Honor Council Rules and Procedures on the web at http://www.tamu.edu/aggiehonor.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   - [ ] Undergraduate
   - [ ] Graduate
   - [ ] First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Physics and Astronomy

3. Course prefix, number and complete title of course:
   PHYS 652: Superstring Theory II

4. Catalog course description (not to exceed 50 words):
   M-theory unification of superstring theories into a single eleven-dimensional theory; duality symmetries relating string theories; string geometry: Calabi-Yau manifolds and exceptional holonomy manifolds; flux compactifications; black holes in string theory; AdS/CFT correspondence; string and M-theory cosmology.

5. Prerequisite(s):
   PHYS 651; PHYS 647 recommended

6. Cross-listed with:
   N/A
   Stacked with:
   N/A

   Cross-listed courses require the signature of both department heads.

7. Is this a variable credit course?
   - [ ] Yes
   - [x] No
   If yes, from _____ to _____

8. Is this a repeatable course?
   - [ ] Yes
   - [x] No
   If yes, this course may be taken _____ times.

9. Will this course be repeated within the same semester?
   - [ ] Yes
   - [ ] No

10. Will this course be submitted to the Core Curriculum Council?
    - [x] Yes
    - [ ] No

11. How will this course be graded?
    - [x] Grade
    - [ ] S/U
    - [ ] P/F

12. This course will be:
    a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

13. MS, PhD in physics

14. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

15. I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-control-basics-for-distance-education).

Preceding course Title (excluding punctuation)

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</table>

Approval recommended by:
George R Welch
Department Head or Program Chair (Type Name & Sign) Date 12-1-14

Chair, College Review Committee
Date 12-1-14

Dean of College
Date

Submitted to Coordinating Board by:
Chair, GC or UCC Date

Associate Director, Curricular Services
Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Instructor
Dr. Melanie Becker
mbecker@physics.tamu.edu
979.458.7912

Course (catalog) description
Superstring Theory II covers the modern developments in the field of superstrings. M-theory unifies the five superstring theories into a single eleven dimensional theory. Duality symmetries relating the different string theories are presented. String geometry is introduced, in particular, Calabi-Yau manifolds and exceptional holonomy manifolds, that are required to compactify M-theory and string theory to lower dimensional space-times. Other modern topics of interest that are covered are flux compactifications, black holes in string theory, the AdS/CFT correspondence and, time permitting, string and M-theory cosmology.

Prerequisites
Superstring Theory I (PHYS 651). Knowledge of Gravitational Physics (PHYS 647) is useful.

Texts
Required
String Theory: A Modern Introduction by K. Becker, M. Becker and J.H. Schwarz
publisher: Cambridge University Press; first edition, 2007

Grading
Homework 100%
A = 90% or higher
B = 80%-90%
C = 60%-80%
D = 50%-60%
F = < 50%
See http://student-rules.tamu.edu/rule07 for information on University-excused absences.

Topics & Weekly Schedule
(1) Weeks 1 – 3: M-theory and superstring dualities.
(2) Weeks 4 – 6: String geometry, Calabi-Yau manifolds and exceptional holonomy manifolds. Moduli fields and supersymmetric cycles, mirror symmetry.
(3) Weeks 7 & 8: Flux compactifications for M-theory, type II string theory and heterotic strings.
(4) Weeks 9 & 10: Black holes in string theory, Bekenstein-Hawking entropy and the attractor mechanism.
(5) Weeks 11 & 12: The AdS/CFT correspondence, the structure of AdS space, correlation functions and primary fields.
ADA statement
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Academic Integrity
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and attach a course syllabus.

1. Course request type:
   □ Undergraduate  ✓ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Physics and Astronomy
   PHYS 653: Introduction to Supersymmetry and Supergravity

3. Course prefix, number and complete title of course:
   PHYS 653

4. Catalog course description (not to exceed 50 words):
   Core material on supersymmetric field theories and their coupling to supergravity theories.

5. Prerequisite(s):
   PHYS 634

6. Is this a variable credit course?
   □ Yes  ✓ No

7. Is this a repeatable course?
   □ Yes  ✓ No

Will this course be repeated within the same semester?
   □ Yes  □ No

8. Will this course be submitted to the Core Curriculum Council?
   □ Yes  ✓ No

9. How will this course be graded:
   ✓ Grade  □ S/U  □ P/F (CLMS)

10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
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12. ✓ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://ypr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
   PHYS 653  Supersymmetry and Supergravity

   Lect Lab Other SCH CH and Fund Code Admin Unit Year Year HCE Code
   3.00 0.00 0.00 3.00 40.0804 2304 5 16 0 3 6 3 2

Approval recommended by:

George R Welch
Department Head or Program Chair (Type Name & Sign) Date

Chair, College Review Committee Date

Dean of College Date

Submitted to Coordinating Board by:
Chair, GC or UCC Date

Associate Director, Curricular Services Date

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Instructor
Dr. Ergin Sezgin
sezgin@physics.tamu.edu
979.845.7795

Course (catalog) description
Supersymmetry and supergravity play an important role in the description of low energy limit of superstrings and have important applications in phenomenology and cosmology. This course aims at providing the core material on supersymmetric field theories and their coupling to supergravity theories.

Prerequisites
Quantum Field Theory (PHYS 634) or Instructor’s consent.

Texts
Recommended

Supergravity
by D.Z. Freedman and A. van Proeyen
Publisher: Cambridge University Press; 1st edition, 2012
ISBN-10: 0521194016

Introduction to supersymmetry and supergravity
by P.C. West
Publisher: World Scientific; 2nd edition, 1990
ISBN-10: 9810200994

Grading
50% homework assignments, plus class participation
25% final exam
25% research project

Grading scales: A=90-100, B=80-89, C=70-79, D=60-69, F=0-59
Attendance and Make-up Policy
Students are expected to attend all scheduled classes. In case of University-excused absences (see below), a make-up final exam will be given in a timely manner.

See http://student-rules.tamu.edu/rule07 for information on University-excused absences.

Topics

Week 1: Supersymmetry algebras and their representations
Week 2: Actions for matter multiplets (I)
Week 3: Actions for matter multiplets (II)
Week 4: Super Yang-Mills theories and supersymmetric gauged sigma models (I)
Week 5: Super Yang-Mills theories and supersymmetric gauged sigma models (II)
Week 6: Supersymmetric field theories in superspace (I)
Week 7: Supersymmetric field theories in superspace (II)
Week 8: The construction and properties of simple supergravity
Week 9: Coupling of N=1, D=4 supergravity to scalar and Yang-Mills multiplets
Week 10: Applications of matter coupled supergravity (I)
Week 11: Applications of matter coupled supergravity (II)
Week 12: Extended supersymmetry and supergravities
Week 13: Supergravities in 10 and 11 dimensions and spontaneous compactification
Week 14: Anti de Sitter and conformal supergravities

On the average once in ten days a homework set will be given. There will be no midterm exams but the final exam will be given which will cover the most basic aspects of the topics taught in class. The final test will be given on the first day of the period that marks the beginning of the final exams as determined by the university in a given semester. A research project will be assigned to each student involving a survey of literature on a specific topic and a write up of the summary of the existing key results.

ADA 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 979-845-1637. For additional information visit http://disability.tamu.edu.

Academic integrity
Texas A&M University  
Departmental Request for a New Course  
Undergraduate • Graduate • Professional  
• Submit original form and attach a course syllabus.  

**Form Instructions**

1. **Course request type:**  
   - □ Undergraduate  
   - □ Graduate  
   - □ First Professional (DDS, MD, JD, PharmD, DVM)

2. **Request submitted by (Department or Program Name):**  
   - Physics and Astronomy

3. **Course prefix, number and complete title of course:**  
   - PHYS 654: The Standard Model and Beyond

4. **Catalog course description (not to exceed 50 words):**  
   - The standard model of particle physics in detail; general principles of gauge theories, including spontaneous breaking and applications to Electro-Weak Interactions and Quantum Chromodynamics; extension of the standard model involving Grand Unified Theories (GUT), Supersymmetry (SUSY), and Supergravity (SUGRA).

5. **Prerequisite(s):**  
   - PHYS 624 and 634

6. **Cross-listed with:**  
   - N/A

7. **Stacked with:**  
   - N/A

8. **Is this a variable credit course?**  
   - □ Yes  
   - □ No  
   - If yes, from ___ to ___

9. **Is this a repeatable course?**  
   - □ Yes  
   - □ No  
   - If yes, this course may be taken ___ times.

10. **Will this course be repeated within the same semester?**  
    - □ Yes  
    - □ No

11. **Will this course be submitted to the Core Curriculum Council?**  
    - □ Yes  
    - □ No

12. **How will this course be graded?**  
    - □ Grade
    - □ S/U
    - □ P/F (CLMD)

13. **This course will be:**  
    - a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
    - b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

14. **MS, PhD in physics**  

15. **If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.**

16. **I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://ypr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).**

**Table:**

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**Approval recommended by:**

George R Welch  
12. Nov 2014

**Chair, College Review Committee:**

Date: 12-1-19  

**Dean of College:**

Date: 12-1-19

**Submitted to Coordinating Board by:**

Chair, GC or UCC  
Date

**Associate Director, Curricular Services:**

Date  
Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu  
Curricular Services – 07/14
Instructor
Dr. Dimitri Nanopoulos
dimitri@physics.tamu.edu

Course (catalog) description
The standard model of particle physics in detail; general principles of gauge theories, including the idea of spontaneous breaking and applications to the case of Electro-Weak Interactions and Quantum Chromodynamics. Beyond the standard model of particle physics, as suggested by the plethora of recent experimental information; extension of the standard model involving Grand Unified Theories (GUTs), Supersymmetry (SUSY) and Supergravity (SUGRA).

Prerequisites
Advanced quantum mechanics and rudiments of quantum field theory.

Texts
Required
Quarks and Leptons: An Introductory Course In Modern Particle Physics, 1st ed.; 1984
by Francis Halzen and Alan D. Martin
publisher: Wiley
ISBN-10: 0471887412

Original papers, review articles and notes will also be provided.

Grading
50% homework assignments
50% two (2) exams

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

See http://student-rules.tamu.edu/rule07 for information on University-excused absences.

Topics
1. General Introduction to Gauge Theories (week 1)
2. Electro-weak Interactions (week 2)
   a. Pre-gauge era
   b. Electroweak Unified Theories
3. Strong Interactions (week 3)
   a. Pre-gauge era
   b. Quantum Chromodynamics
4. Why go beyond the Standard Model (week 4)
   a. Theory
   b. Experimental status
5. Grand Unified Theories (weeks 5-7)
   a. Theory
b. Experimental status

6. Supersymmetry (weeks 8-9)
   a. Rudiments
   b. Phenomenology/Predictions
   c. Experimental status

7. Supergravity (weeks 10-11)
   a. Rudiments
   b. Phenomenology/Predictions
   c. Experimental status

8. Theory vs. Experiment (weeks 12-13)
   a. Supersymmetric particle spectrum
   b. Dark Matter
   c. Neutrino Masses/Oscillations
   d. Proton Decay

9. Theory(ies) of Everything (TOE) (week 14)

ADA 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 979-845-1637. For additional information visit http://disability.tamu.edu.

Academic integrity
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
- Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: ☐ Undergraduate ☑ Graduate ☐ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Physics and Astronomy
3. Course prefix, number and complete title of course: PHYS 655: String Phenomenology
4. Catalog course description (not to exceed 50 words):
Physical applications of string theory; rudiments of string theory; compactification of extreme dimensions in string theory; free-fermionic formulation; dualities, M-theory, intersection D-Branes, and D-Brane phenomenology; model building.

5. Prerequisite(s): PHYS 634 and 651
Cross-listed with: N/A
Stacked with: N/A
Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course? ☐ Yes ☑ No
 If yes, from ________ to ________

7. Is this a repeatable course? ☐ Yes ☑ No
 If yes, this course may be taken ________ times.
 Will this course be repeated within the same semester? ☐ Yes ☐ No

8. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☑ No

9. How will this course be graded? ☑ Grade ☐ S/U ☐ P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   MS, PhD in physics

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. ☑ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://pr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix: PHYS 655
Title (excluding punctuation): String Phenomenology

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Approval recommended by:
George R Welch
Department Head or Program Chair (Type Name & Sign) 12 Nov 2014
Chair, College Review Committee

Department Head or Program Chair (Type Name & Sign) (if cross-listed course)
Date
Dean of College
Date

Submitted to Coordinating Board by:
Chair, GC or UCC
Date

Associate Director, Curricular Services
Date
Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Instructor
Dr. Dimitri Nanopoulos
dimitri@physics.tamu.edu

Course (catalog) description
Physical applications of string theory; rudiments of string theory; compactification of extra dimensions in string theory; free-fermionic formulation; dualities, M-theory, intersection D-Branes and D-Brane phenomenology; model building.

Prerequisites
Quantum field theory & String theory

Texts
Required
A First Course in String Theory, 2nd ed.; 2009
by Barton Zwiebach
publisher: Cambridge University Press
ISBN-10: 0521880329

Grading
100% homework assignments

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

See http://student-rules.tamu.edu/rule07 for information on University-excused absences.

Topics
1. Basics of String Theory (week 1)
2. Compactified String Theories: Infrared String Limit (weeks 2-3)
3. Free-Fermionic- Formulation & Phenomenology (weeks 4-6)
4. Non-Perturbative effects in String theory (weeks 7-8)
5. String Dualities (weeks 9-10)
6. M-Theory Basics (week 11)
7. Intersecting D-Branes (weeks 12-13)
8. D-Brane Phenomenology and Model Building (week 14)

ADA 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 979-845-1637. For additional information visit http://disability.tamu.edu.
Academic integrity

The Aggie Honor Code is "An Aggie does not lie, cheat, or steal or tolerate those who do." For more information, refer to the Honor Council Rules and Procedures on the web at http://www.tamu.edu/aggiehonor.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and attach a course syllabus.

1. Course request type:  □ Undergraduate  □ Graduate  □ First Professional (D.D.S. M.D. J.D. PharmD. D.V.M)

2. Request submitted by (Department or Program Name): Department of Veterinary Small Animal Clinical Sciences

3. Course prefix, number and complete title of course: VSCS 697 Teaching Anatomy Lab

4. Catalog course description (not to exceed 50 words):
Theory and practical aspects of teaching anatomy lab, with emphasis on content, instructional methods and practical aspects of anatomy lab. May be repeated for credit. Prerequisite: Graduate classification in VIBS/VSCS; appointment as a TA for VIBS 913 anatomy lab

5. Prerequisite(s):
Appointment as a TA for VIBS 913 anatomy
Cross-listed with:
Stacked with:

Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?  □ Yes  □ No  If yes, from _____ to _____

7. Is this a repeatable course?  □ Yes  □ No  If yes, this course may be taken _____ times.

Will this course be repeated within the same semester?  □ Yes  □ No

8. Will this course be submitted to the Core Curriculum Council?  □ Yes  □ No

9. How will this course be graded?  □ Grade  □ S/U  □ P/F (CLMD)

10. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   MS in Biomedical Science

11. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

12. □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    VSCS  697  Teaching Anatomy Lab

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</table>

Approval recommended by:
Sharon Kerwin
Department Head or Program Chair (Initial & Sign) Date

Chair, College Review Committee Date

Dean or College Date

Submit to: Chair, College Review Committee Date

Associate Dean, Curriculum Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Course title and number  VSCS 697 Teaching Methods in Neuroanatomy  
Term (e.g., Fall 200X)  Spring 2015  
Lecture (room 101)  
Meeting times and location  Lab (histology lab)  
Times TBA

Course Description and Prerequisites

Theory and practical aspects of teaching neuroanatomy lab and clinical neurology, with emphasis on content, instructional methods and practical aspects of neuroanatomy lab. May be repeated for credit. Prerequisites: Graduate classification in VIBS/VSCS; appointment as a TA for VIBS 913 neuroanatomy lab.

Course Learning Outcomes

By the end of this class, students will be able to:
- Prepare neuroanatomy laboratories for veterinary students
- Show veterinary students important neuroanatomic structures
- Apply classroom management strategies in the facilitation of a course within your discipline
- Develop a reflective and purposeful approach to teaching
- Apply anatomic knowledge to surgical and clinical scenarios

Instructor Information

Co - Instructors

Name  Kelley Thieman Mankin  
Telephone number  979-845-2351  
Email address  kthieman@cvm.tamu.edu  
Office hours  By appointment  
Office location  VSCS 2001

Name  Anton Hoffman  
Telephone number  979-845-5948  
Email address  AHoffman@cvm.tamu.edu  
Office hours  By appointment  
Office location  VMS 156 (adjacent to anatomy lab)

Grading Policies

This course will be graded. Student grades will be determined by development of a teaching portfolio and participation. Participation grades will be determined based on laboratory attendance, and interaction with the veterinary students, specifically the ability to assist and explain neuroanatomy to the veterinary students. Knowledge of the neuroanatomy of all domestic species based on prosection and assistance during laboratory will also be used to determine the final grade. The teaching portfolio will consist of the TA's reflective teaching statement which will include his/her personal teaching philosophy,
strategies and objectives. Further, the portfolio will include suggested activities to improve instruction. The instructor will evaluate the teaching portfolio. Following the completion of the course, the TA will be able to include documentation of teaching in the form of student evaluations.

Grading scale

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

Attendance and Make-up Policies

Students are expected to attend all laboratories and complete all assignments. Students are highly encouraged to attend all lectures. [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)

Course Topics, Calendar of Activities, Major Assignment Dates

This course will emphasize functional neuroanatomy and clinical neurology. The course will begin with prospection times for TA familiarity. Exams are not given. Prospection times and days are flexible. The students will follow the calendar provided. TAs are expected to attend each laboratory session and be prepared by performing prospections ahead of schedule.

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<tr>
<th>Lecture Number</th>
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<td>1</td>
<td>Overview of CNS/PNS</td>
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<tr>
<td>2</td>
<td>Basic nervous system concepts</td>
</tr>
<tr>
<td>3</td>
<td>Solving neurological problems</td>
</tr>
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<td>4</td>
<td>Spinal cord</td>
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<td>5</td>
<td>LMNs, UMN s</td>
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<td>6</td>
<td>Spinal and peripheral nerves</td>
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<td>7</td>
<td>Spinal reflexes</td>
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<td>10</td>
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<td>UMN descending tracts</td>
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<td>Radiographic imaging of the CNS</td>
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<td>Ascending tracts – proprioception and nociception</td>
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<td>Vestibular system and vestibular disease</td>
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<td>18</td>
<td>Overview of the neurological exam</td>
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<td>Small animal neurological exam</td>
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<td>25</td>
<td>Food animal neurological exam</td>
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<td>26</td>
<td>Lesion localization – forebrain, brainstem, spinal cord</td>
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Americans with Disabilities Act (ADA)
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**Academic Integrity**
*For additional information please visit: [http://aggiehonors.tamu.edu](http://aggiehonors.tamu.edu)*

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

**Resources**

VIBS 913 Class Notes, Anton Hoffman, 2015


Center for Teaching Excellence at Texas A&M University. Cte.tamu.edu


Center for Teaching Excellence [http://cte.tamu.edu/](http://cte.tamu.edu/)
Course title and number  VSCS 689 Teaching Anatomy Lab
Term                                    Fall 2015
Meeting times and location          Lecture M/W 9:50 (room 201)
                                      Lab M/W/Th 1-2:50 and 3-4:50 (anatomy lab)

Course Description and Prerequisites

Theory and practical aspects of teaching anatomy lab, with emphasis on content, instructional methods and practical aspects of anatomy lab. May be repeated for credit. Prerequisites: Graduate classification in VIBS/VSCS; appointment as a TA for VIBS 910 anatomy lab.

Course Learning Outcomes

By the end of this class, students will be able to:

- Prepare anatomy laboratories for veterinary students
- Show veterinary students important anatomic structures
- Apply classroom management strategies in the facilitation of a course within your discipline
- Develop a reflective and purposeful approach to teaching
- Apply anatomic knowledge to surgical scenarios

Instructor Information

Co- Instructors

Name                        Kelley Thieman Mankin
Telephone number            979-845-2351
Email address               kthieman@cvm.tamu.edu
Office hours                By appointment
Office location             VSCS 2001

Name                        Anton Hoffman
Telephone number            979-845-5948
Email address               AHoffman@cvm.tamu.edu
Office hours                By appointment
Office location             VMS 156 (adjacent to anatomy lab)

Grading Policies

This course will be graded. Student grades will be determined by development of a teaching portfolio and participation. Participation grades will be determined based on laboratory attendance, and interaction with the veterinary students, specifically the ability to assist and explain anatomy to the veterinary students. Knowledge of the anatomy of the dog and cat based on prosection and assistance during laboratory will also be used to determine the final grade. The teaching portfolio will consist of the TA’s reflective teaching statement which will include his/her personal teaching philosophy, strategies and objectives. Further, the portfolio will include suggested activities to improve instruction. The instructor will evaluate the teaching portfolio. Following the completion of the course, the TA will be able
to include documentation of teaching in the form of student evaluations.

Grading scale
A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = <59%

Attendance and Make-up Policies

Students are expected to attend all laboratories and complete all assignments. Students are highly encouraged to attend all lectures. [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)

Course Topics, Calendar of Activities, Major Assignment Dates

This course will progress through the anatomic analysis of small animals. The course will begin with prosection times for TA familiarity. The superficial structures will be identified and studied. As the course proceeds, deeper structures will be identified and studied. Exams are not given. Prosection times and days are flexible. The students will follow the calendar provided. TAs are expected to attend each laboratory session and be prepared by performing prosections ahead of schedule.

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<td>Arthrology, synovial structures</td>
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<td>9/8-12</td>
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<td>Axial skeleton</td>
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<tr>
<td>9/15-19</td>
<td>Endochondral ossification; clinical features</td>
<td>70-92</td>
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<td>Vertebral ligaments IV discs; trunk muscles</td>
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<tr>
<td>9/22-26</td>
<td>Thorax; pleura; respiratory muscles</td>
<td>92-119</td>
</tr>
<tr>
<td></td>
<td>Respiratory mechanisms; clinical features</td>
<td></td>
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<tr>
<td>9/29-10/3</td>
<td>Circulatory principles; heart</td>
<td>120-136</td>
</tr>
<tr>
<td></td>
<td>Heart; PMI's; pericardium</td>
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<tr>
<td>10/6-10/10</td>
<td>Peritoneum; inguinal canals; reproductive system</td>
<td>137-158</td>
</tr>
<tr>
<td></td>
<td>Testicular descent</td>
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<tr>
<td>10/13-10/17</td>
<td>Male reproductive – spermatic cord/ castration</td>
<td>159-172</td>
</tr>
<tr>
<td></td>
<td>Male reproductive – penis</td>
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</tr>
<tr>
<td>10/20-24</td>
<td>Selected clinical features of digestive system</td>
<td>173-192</td>
</tr>
<tr>
<td></td>
<td>Female reproductive – anatomy / OHE</td>
<td></td>
</tr>
<tr>
<td>10/27-31</td>
<td>Nervous system- introduction</td>
<td>193-207</td>
</tr>
<tr>
<td></td>
<td>Nervous system – functional classification</td>
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<tr>
<td>11/3-7</td>
<td>Nervous system – spinal nerves</td>
<td>208-229</td>
</tr>
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<td></td>
<td>Nervous system- autonomic nervous system</td>
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<td>Exam 3</td>
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<tr>
<td>11/10-14</td>
<td>Head- skull, joints and sinuses</td>
<td>230-244</td>
</tr>
<tr>
<td></td>
<td>Head – teeth, dental formulae</td>
<td></td>
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<tr>
<td>11/17-21</td>
<td>Head – pharynx, larynx and swallowing</td>
<td>245-256</td>
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<tr>
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<td>Cranial nerves; clinical features</td>
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<tr>
<td>11/24-28</td>
<td>Clinical anatomy of the cat</td>
<td>Cat anatomy</td>
</tr>
<tr>
<td></td>
<td>Clinical anatomy of the cat review</td>
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</tr>
</tbody>
</table>
Americans with Disabilities Act (ADA)

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

Academic Integrity

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

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

Resources

VIBS 910 Class Notes, Anton Hoffman, 2013


Center for Teaching Excellence at Texas A&M University. Cte.tamu.edu


Center for Teaching Excellence http://cte.tamu.edu/
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
- Submit original form and attach a course syllabus.

Form Instructions

1. Course request type: □ Undergraduate □ Graduate □ First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name): Department of Veterinary Integrative Biosciences

3. Course prefix, number and complete title of course: VIIB 622 Endocrine Toxicology

4. Catalog course description (not to exceed 50 words):
Impacts of endocrine toxicology on endocrine system; prevalence, environmental and occupational use and disposal of environmental endocrine disrupting chemicals (EDCs); and structure, toxicokinetics and mechanism of action of EDCs; effects of EDCs on the development and function, disorders, and diseases of the endocrine and reproductive organs.

5. Prerequisite(s):
Graduate classification; approval of instructor

Cross-listed with: Stacked with: VIIB 421

6. Is this a variable credit course? □ Yes □ No If yes, from _______ to _______

7. Is this a repeatable course? □ Yes □ No If yes, this course may be taken _______ times.

8. Will this course be submitted within the same semester? □ Yes □ No

9. Will this course be submitted to the Core Curriculum Council? □ Yes □ No

10. How will this course be graded? □ Grade □ S/U □ P/F (CLMD)

11. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      N/A
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      N/A

12. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

13. I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-control-basics-for-distance-education).

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services - 07/14
VIBS 422/622: ENDOCRINE TOXICOLOGY

Credit: 4; Spring 2015
Time: 11:10 A.M – 12:25 P.M
Days: Tuesdays and Thursdays
Classroom: VMA 329

Director/Instructor:

Sakhila K. Banu, MSc, MPhil, PhD
Assistant Professor
Department of Veterinary Integrative Biosciences
College of Veterinary Medicine &
Biomedical Sciences
Texas A&M University, TAMU 4458
College Station, Texas 77843
Room# 105, VMR building
Phone: 979-458-3613
Fax: 979-847-8981
Email: skbanu@cvm.tamu.edu

Course Description:

VIBS 421 / VIBS 621. Credit 4. Environmental and occupational use of endocrine disrupting chemicals (EDCs); structure, toxicokinetics and mechanism of action of EDCs; effects of EDCs on the development and function, disorders, and diseases (including cancers) of the endocrine and reproductive organs. Detailed study on the endocrine toxicology of PCB, PBB, PAH, DIOXIN and BPA; plasticizers, pesticides, diethylstilbestrol, genistein and coumestrol, and heavy metal endocrine disruptors; and vinclozolin and atrazine, persistent organic pollutants (POPs). Clinical perspectives of EDCs, and their effects on estrogen and androgen receptor signaling, ovarian failure, oxidative stress/antioxidants, epigenetics, and an overview of research methodology to study EDCs.

Course learning outcomes:

Upon completion of the course, students will be able to:
1. Describe the most prevalent environmental endocrine disrupting chemicals (EDCs) in the environment; describe properties and the biological processes of EDCs which modulate their toxicokinetics.
2. Understand molecular, cellular and pathophysiological responses of the endocrine organs resulting from exposure to EDCs.
3. Identify underlying mechanisms those contribute to endocrine diseases/disorders and intervention strategies to mitigate/prevent adverse effects of EDCs.
4. Explain research approaches to understand adverse effects of EDCs on endocrine organs.

<table>
<thead>
<tr>
<th>Pre-requisite</th>
<th>Graduate Students (VIBS)</th>
<th>Undergraduate Students (VIBS) 489</th>
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<tbody>
<tr>
<td>Graduate classification and approval of the instructor</td>
<td>Senior classification; Approval of the instructor.</td>
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<td>Exam-1:Multiple Choice type: 20%</td>
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<tr>
<td>Exam-2: Multiple Choice type: 20%</td>
<td>Exam-2:Multiple Choice type: 20%</td>
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<tr>
<td>Exam-3: Multiple Choice type: 20%</td>
<td>Exam-3:Multiple Choice type: 20%</td>
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<tr>
<td>Exam-4: Case study report *: 40%</td>
<td>Exam-4:Descriptive (short essays)* 40%</td>
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<tr>
<td>Total: 100%</td>
<td>Total: 100%</td>
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<tr>
<td>* Case Study Report: All students will be required to prepare a case study report (maximum total of</td>
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</table>


The case study will require examining a chemical in a specific contaminated site (e.g., chromium in California and New Jersey) or a chemical that affects a more specific target endocrine organ (e.g., organochlorine and thyroid gland or dioxin and endometriosis), or choose one of the “World’s worst polluted places”, and select one particular EDC and its clinical/endoocrinological relevance on the health of the people living in that environment. Alternatively, choose an EDC that is more relevant to occupational exposure etc., (the student can obtain help from the instructor to choose the topic). The case study will examine sources, pathways, transport, levels of contamination in the environment, remediation process (if any), and receptors in the target endocrine organ, and end-point diseases or disorders. The paper should be submitted according to a required format and will reference peer-reviewed work and reviews, website information, reports from USEPA and/or ATSDR, The Blacksmith Institute etc.

<table>
<thead>
<tr>
<th>Grading</th>
<th>90-100</th>
<th>80-89.99</th>
<th>70-79.99</th>
<th>60-69.99</th>
<th>Less than 60</th>
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<tbody>
<tr>
<td>A</td>
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<td>C</td>
<td>D</td>
<td>F</td>
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</tbody>
</table>

Hand out of the lecture will be given (Most of the objective questions will be taken from lectures). Particular book chapters or interested journals could be referred.

Course material will be derived from the following books & reviews.
1. *Casarett & Doull's Essentials of Toxicology*, by Curtis D. Klaassen and John B. Watkins III.
3. *Our Stolen Future* by Theo Colborn, Dianne Dumanoski, John Peterson Myers, published by Dutton.

Hand out of the lecture will be given (most of the questions will be taken from lectures). Particular book chapters or interested journals could be referred.

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Attendance Policies

A university-excused absence is the only excuse acceptable for missing an exam, case studies presentation, homework assignment or a class period (attendance). For information regarding what constitutes an excused absence, please see http://student-rules.tamu.edu/rule07. Late work is unacceptable, unless the student has a university-excused absence. All university excused absences should be verified through the BIMS office with proper documentation (ex. Doctor's note etc.). "Rule 7.3: Students may be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in Section 7.1, or other reason deemed appropriate by the student's instructor. Except in the case of the observance of a religious holiday, to be excused the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) prior to the date of absence if such notification is feasible. In cases where advance notification is not feasible (e.g. accident, or emergency) the student must provide notification by the end of the second working day after the absence. This notification should include an explanation of why notice could not be sent prior to the class. Accommodations sought for absences due to the observance of a religious holiday can be sought either prior or after the absence, but not later than two working days after the absence." Instructor's contact email: skbanu@cvm.tamu.edu; office # 979-458-3613; and mobile: 979-255-3946.

Academic Integrity Statement

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

The student to the Honor Council Rules and Procedures can be found on the web: http://aggiehonor.tamu.edu/

<table>
<thead>
<tr>
<th>Lec#</th>
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<th>Day &amp; Time</th>
<th>DATE</th>
<th>Title/Topic</th>
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<tr>
<td></td>
<td>Week 1</td>
<td>Thursday 11:10 A M-12:25 P.M</td>
<td>1/22/2015</td>
<td>Introduction to Environmental Endocrine Disrupting Chemicals (EDC).</td>
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<td>2</td>
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<td>Tuesday 2:20-3:35PM</td>
<td>1/27/2015</td>
<td>Influence of EDCs on Learning and Memory, and Their Effects on Neurocognitive Disorders.</td>
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<td>Week</td>
<td>Thursday</td>
<td>1/29/2015</td>
<td>Structure and Toxicokinetics of Polychlorinated</td>
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<td>Week</td>
<td>Date</td>
<td>Time</td>
<td>Topic</td>
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<tr>
<td>5</td>
<td>Tuesday 2</td>
<td>11:10 A.M-</td>
<td>Effects of PCBs and PBBs on Male and Female Reproductive System.</td>
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<td>12:25 P.M</td>
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<td>12:25 P.M</td>
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<tr>
<td>7</td>
<td>Tuesday 4</td>
<td>11:10 A.M-</td>
<td>Structure and Toxicokinetics of Dioxins &amp; Bisphenol A (BPA); and Their Effects on Male and Female Reproduction, and Fetal Development.</td>
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<td>12:25 P.M</td>
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<td>8</td>
<td>Thursday</td>
<td>11:10 A.M-</td>
<td>Endocrine Disruptors and Endometriosis.</td>
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<td>12:25 P.M</td>
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<tr>
<td>9</td>
<td>Tuesday 6</td>
<td>11:10 A.M-</td>
<td>REVIEW AND DISCUSSION - 1</td>
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<td>12:25 P.M</td>
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<td>Thursday</td>
<td>11:10 A.M-</td>
<td>EXAM - 1</td>
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<td>12:25 P.M</td>
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<td>11</td>
<td>Tuesday 7</td>
<td>11:10 A.M-</td>
<td>Phase II: Plasticizers, pesticides, diethylstilbestrol, genistein and coumestrol, bioremediation of EDCs, and heavy metal endocrine disruptors.</td>
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<td>12:25 P.M</td>
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<tr>
<td>12</td>
<td>Thursday</td>
<td>11:10 A.M-</td>
<td>Structure and Toxicokinetics of Plasticizers Phthalates; and Reproductive and Developmental Toxicity of Phthalates.</td>
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<td>12:25 P.M</td>
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<tr>
<td>13</td>
<td>Tuesday 8</td>
<td>11:10 A.M-</td>
<td>Effects of Pesticides [methoxychlor, chlorpyrifos, and dichlorodiphenyltrichloroethane (DDT)] on Neuroendocrine System.</td>
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<td>12:25 P.M</td>
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<td>14</td>
<td>Thursday</td>
<td>11:10 A.M-</td>
<td>Endocrine Disruption of Diethylstilbestrol (DES) – I [Effects on Male and Female Reproductive Toxicity &amp; Developmental Toxicity].</td>
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<td>12:25 P.M</td>
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<td></td>
<td>12:25 P.M</td>
<td>Overview of Endocrine Disruption and Reproductive Health from a Clinical Perspective.</td>
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<td>3/16/15 - 3/20/15</td>
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<td>SPRING BREAK</td>
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<td>Week 9</td>
<td>Tuesday 5</td>
<td>REVIEW AND DISCUSSION - 2</td>
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<td>11:10 A.M-</td>
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<td>12:25 P.M</td>
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<td>12:25 P.M</td>
<td>EXAM - 2</td>
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<td>12:25 P.M</td>
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<tr>
<td>15</td>
<td>Tuesday 9</td>
<td>11:10 A.M-</td>
<td>Phase III: Vinclozolin and atrazine, Persistent Organic Pollutants (POPs), Clinical perspectives, Epigenetics and ER-signaling and EDCs, ovarian failure, oxidative stress/antioxidants and EDCs; and mechanistic toxicology and research methodology to study EDCs.</td>
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<td></td>
<td>12:25 P.M</td>
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<td></td>
<td>Thursday</td>
<td>11:10 A.M-</td>
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<td>12:25 P.M</td>
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<tr>
<td>Week</td>
<td>Tuesday</td>
<td>Date</td>
<td>Topic</td>
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<td>17</td>
<td>Tuesday 11.10 A.M.-12.25 P.M</td>
<td>4/7/2015</td>
<td>Epigenetics and Environmental Endocrine Disruptors.</td>
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<td>19</td>
<td>Tuesday 11.10 A.M.-12.25 P.M</td>
<td>4/14/2015</td>
<td>Occupational and Environmental Exposure to EDCs and Reproductive Failure.</td>
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<tr>
<td>20</td>
<td>Thursday 11.10 A.M.-12.25 P.M</td>
<td>4/16/2015</td>
<td>The Roles of Oxidative Stress in Endocrine Disruption.</td>
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<td>13</td>
<td>Tuesday 11.10 A.M.-12.25 P.M</td>
<td>4/21/2015</td>
<td>Last day for Q drop.</td>
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<tr>
<td></td>
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<td>(i) In vivo and In vitro Research Approaches to Understand the Basic Mechanisms of Endocrine Disruption.</td>
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<td>(ii) Policies and Regulations of EDCs.</td>
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<td>(iii) Bioremediation.</td>
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<td>ANNOUNCEMENTS ABOUT CASE STUDY REPORT – ASSIGNMENT QUESTIONS</td>
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<tr>
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<td>Thursday 11.10 A.M.-12.25 P.M</td>
<td>4/30/2015</td>
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<td>15</td>
<td>Tuesday 11.10 A.M.-12.25 P.M</td>
<td>5/5/2015</td>
<td>Exam preparation; no classes</td>
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</tr>
<tr>
<td></td>
<td>Thursday 11.10 A.M.-12.25 P.M</td>
<td>5/7/2015</td>
<td>FINAL EXAM – ASSIGNMENTS – CASE REPORT DUE</td>
<td></td>
</tr>
</tbody>
</table>

Return the case study report and assignment to Dr. Banu
Email: skbanu@cvm.tamu.edu
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and attach a course syllabus.

Form Instructions:
1. Course request type:  □ Undergraduate  ✓ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Veterinary Integrative Biosciences
3. Course prefix, number and complete title of course: VIBS 624 - Endocrinology
4. Catalog course description (not to exceed 50 words):
Neuroendocrine control of puberty, menstruation, ovulation, pregnancy, labor, lactation, female reproductive cycles, male reproductive functions, thyroid and parathyroid, adrenal and kidney, diabetes, obesity, sleep, memory, learning and aging, and their endocrine disorders; overview on biosynthesis, transport and signaling of peptide and neuropeptide hormones, steroids and prostaglandins.

5. Prerequisite(s): Honors, Graduate Classification

<table>
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<tr>
<th>Cross-listed with:</th>
<th>VTPP 624</th>
<th>Stacked with:</th>
<th>VIBS 424/VTPP 424</th>
</tr>
</thead>
</table>

Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course?  □ Yes  ✓ No
   If yes, from _____ to _______.

7. Is this a repeatable course?  □ Yes  ✓ No
   If yes, this course may be taken _____ times.

8. Will this course be repeated within the same semester?  □ Yes  ✓ No

9. Will this course be submitted to the Core Curriculum Council?  □ Yes  ✓ No

10. How will this course be graded?  ✓ Grade  □ S/U  □ P/F (C, MD)

11. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      N/A
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      N/A

12. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
   ✓ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://ygr.tamu.edu/resources/export-controls-export-controls-basics-for-distance-education).

13. Prefix  | Course #  | Title (excluding punctuation) |
           |           | Endocrinology               |
|-----------|-----------|------------------------------|
| VIBS 624  |           |                              |

<table>
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<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>HEC Code</th>
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<td>2609040002</td>
<td>2873</td>
<td>15</td>
<td>16</td>
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</tbody>
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Approval recommended by:

Evelyn Tiffany-Castiglioni 11-14-14
Department Head or Program Chair (Type Name & Sign) Date

C. Jane Welsh 11-21-14
Chair, College Review Committee Date

John Stallone 11-7-14
Department Head or Program Chair (Type Name & Sign) Date

Eleanor Green 11-21-14
Dean of College Date

Submitted to Coordinating Board by:

Chair, GC or UCC Date

Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
Course #: VIBS624/VTPP624

Title: ENDOCRINOLOGY

Credit: 3+1 Fall 2015

Director/Instructor
Joe A. Arosh DVM, MVSc, PhD
Associate Professor
Veterinary Integrative Biosciences
College of Veterinary Medicine & Biomedical Sciences
Texas A&M University, TAMU 4458
College Station, Texas 77843
Room 103, VMR building
Phone: 979-845-6173
Fax: 979-847-8981
Email: jarosh@cvm.tamu.edu

Co-Instructor
Charles Long, PhD
Associate Professor
Veterinary Physiology and Pharmacology
College of Veterinary Medicine & Biomedical Sciences
Texas A&M University, TAMU 4466
College Station, Texas 77843
Room 332 VMA
Phone: 979-845-2331
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Co-Instructor
Sakhila K. Banu, MS, MPhil, PhD
Assistant Professor
College of Veterinary Medicine & Biomedical Sciences
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College Station, Texas 77843
Room 105, VMR building
Phone: 979-458-3613
Fax: 979-847-8981
Email: skbanu@cvm.tamu.edu

Time
2.00-3.30 PM
2.00-5.00 PM (Lab)

Days
Tuesday
Wednesday (Lab)
Thursday

Room #:
VMA 206

Course Description

Neuroendocrine control of puberty, menstruation, ovulation, pregnancy, labor, lactation, female reproductive cycles, male reproductive functions, thyroid and parathyroid, adrenal and kidney, diabetes, obesity, sleep, memory, learning and aging, and their endocrine disorders; and overview on biosynthesis, transport and signaling of peptide and neuropeptide hormones, steroids and prostaglandins.

Stacked Course: VIBS/VTPP 424

Course Objectives:

1. To identify the importance of neuroendocrinology and endocrine functions in biomedical sciences.
2. To analyze and differentiate functions and dysfunctions of endocrine organs during physiological processes and pathological conditions.
3. To synthesis and develop knowledge about endocrinology and to apply this knowledge in professional career development.
Learning Outcomes:

1. Students will be able to: (a) collect and organize appropriate clinical data to determine clinical diagnoses, (b) define endocrine principles of evidence-based medicine, and (c) formulate and implement acceptable treatment modalities for various endocrine diseases and disorders.

2. Students will be able to critically analyze and evaluate current trend in endocrine research and apply it to design novel endocrine research projects.

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**Reference Text Books:**

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<tbody>
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<td>Tue 2-3.30PM</td>
<td>01.</td>
<td>Hypothalamus and Pituitary Axis- Part-1: Functional Anatomy and Endocrine Regulations</td>
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<tr>
<td></td>
<td>Wed 2-5.00PM</td>
<td>Lab 01</td>
<td>Research Paper -1</td>
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<tr>
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<td>Thu 2-3.30PM</td>
<td>02.</td>
<td>Hypothalamus and Pituitary Axis- Part-2: Functional Anatomy and Endocrine Regulations</td>
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<tr>
<td>02</td>
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<td>03.</td>
<td>Overview on Biosynthesis, Transport and Signaling of Peptide and Neuropeptide Hormones, and Clinical Correlates</td>
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<td>Wed 2-5.00PM</td>
<td>Lab 02</td>
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<td>Overview on Biosynthesis, Transport and Signaling of Steroid Hormones, and Clinical Correlates</td>
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<td>03</td>
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<td>Overview on Biosynthesis, Transport and Signaling of Lipid Hormones-Prostaglandins, and Clinical Correlates</td>
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<td>Research Paper -3</td>
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<td>Thu 2-3.30PM</td>
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<td>Hypothalamus and Pituitary Endocrine Disorders</td>
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<td>04</td>
<td>Tue 2-3.30PM</td>
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<td>Part-1: Pineal Gland, Circadian Rhythm and Sleep Cycle Part-2: Neuroendocrine Control of Puberty Functional Anatomy, Endocrine Regulations and Disorders</td>
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<td>Research Paper Groups Discussion-1</td>
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<td>Thu</td>
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<td>Neuroendocrine Control of Breast/Mammary Gland: Functional Anatomy, Endocrine Regulations and Endocrine Disoders</td>
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<tr>
<td>Tue</td>
<td>2-3.30PM</td>
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<td>Neuroendocrine Control Female Reproduction: Part-1. Functional Anatomy, Endocrine Regulations and Endocrine Disorders of Ovary</td>
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<td>Wed</td>
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<td>Lab 06</td>
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<td>Wed</td>
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<td>Lab 07</td>
<td>Research Paper -6</td>
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<td>Research Paper -7</td>
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<td>Neuroendocrine Control of Testis and Male Reproductive Tract: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>REVIEW AND DISCUSSION-2</td>
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<td>Neuroendocrine Control of Adrenal and Kidney: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Lab 11</td>
<td>Research Paper -9</td>
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<td>Neuroendocrine Control of Parathyroid: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Lab 12</td>
<td>Research Paper -10</td>
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<td>Thu</td>
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<td>20. Neuroendocrine Control of Aging: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Tue</td>
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<td>21. Neuroendocrine Control Learning and Memory: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Lab 13 Research Paper -11</td>
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<td>Thanks giving week-end No Class</td>
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<td>14</td>
<td>Tue</td>
<td>REVIEW AND DISCUSSION-3 TAKE HOME FINAL EXAM ASSIGNMENT WILL BE GIVEN</td>
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<td>Wed</td>
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<td>Lab 14 Research Paper Groups Discussion-3</td>
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<td>Dr. Arosh EXAM-3</td>
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<td>Reading</td>
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<td>15</td>
<td>Tue</td>
<td>FINAL EXAM. Return the final exam assignment between 2-3:30 pm to Dr. Arosh by Email or hard copy.</td>
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<td>Evaluation and Grading</td>
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<td>UG</td>
<td>MS (Non Thesis/Thesis)</td>
<td>PhD</td>
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<td>No Difference</td>
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<td>Exam 1 Exam 2 Exam 3</td>
<td>Questions will be from class notes</td>
<td>Questions will be from class notes and research papers</td>
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<td>Final Exam</td>
<td>Descriptive questions will be from class notes.</td>
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<td>Project. It includes literature review and project writing of minimum 10 pages.</td>
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Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   □ Undergraduate  □ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Department of Veterinary Physiology and Pharmacology

3. Course prefix, number and complete title of course:
   VTPP 624 - Endocrinology

4. Catalog course description (not to exceed 50 words):
   Neuroendocrine control of puberty, menstruation, ovulation, pregnancy, labor, lactation, female reproductive cycles, male reproductive functions, thyroid and parathyroid, adrenal and kidney, diabetes, obesity, sleep, memory, learning and aging, and their endocrine disorders; overview on biosynthesis, transport and signaling of peptide and neuropeptide hormones, steroids and prostaglandins.

---

5. Prerequisite(s):
   Honors, Graduate Classification

   Cross-listed with: VIBS 624
   Stacked with: VTPP 424/VIBS 424

6. Is this a variable credit course?
   □ Yes  □ No
   If yes, from _____ to _____

7. Is this a repeatable course?
   □ Yes  □ No
   If yes, this course may be taken _____ times.

8. Will this course be repeated within the same semester?
   □ Yes  □ No

9. Will this course be submitted to the Core Curriculum Council?
   □ Yes  □ No

10. How will this course be graded?
    □ Grade  □ S/U  □ P/F (CLMD)

11. This course will be:
    a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
       N/A
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
       N/A

12. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

13. Prefix  Course #  Title (excluding punctuation)
    VTPP  624  Endocrinology

<table>
<thead>
<tr>
<th>Lec.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>ECE Code</th>
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<td>2609040002</td>
<td>2920</td>
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Approval recommended by:
John Stallone
Department Head or Program Chair (Type Name & Sign) Date

C. Jane Welsh
Chair, College Review Committee Date

Evelyn Tiffany-Castiglioni
Department Head or Program Chair (Type Name & Sign) Date

Eleanor Green
Dean of College Date

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<td>Tue 2-3.30PM</td>
<td>01.</td>
<td>Hypothalamus and Pituitary Axis- Part-1: Functional Anatomy and Endocrine Regulations</td>
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<tr>
<td></td>
<td>Wed 2-5.00PM</td>
<td>Lab 01</td>
<td>Research Paper -1</td>
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<tr>
<td></td>
<td>Thu 2-3.30PM</td>
<td>02.</td>
<td>Hypothalamus and Pituitary Axis- Part-2: Functional Anatomy and Endocrine Regulations</td>
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<tr>
<td>02</td>
<td>Tue 2-3.30PM</td>
<td>03.</td>
<td>Overview on Biosynthesis, Transport and Signaling of Peptide and Neuropeptide Hormones, and Clinical Correlates</td>
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<td></td>
<td>Wed 2-5.00PM</td>
<td>Lab 02</td>
<td>Research Paper -2</td>
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<td></td>
<td>Thu 2-3.30PM</td>
<td>04.</td>
<td>Overview on Biosynthesis, Transport and Signaling of Steroid Hormones, and Clinical Correlates</td>
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<tr>
<td>03</td>
<td>Tue 2-3.30PM</td>
<td>05.</td>
<td>Overview on Biosynthesis, Transport and Signaling of Lipid Hormones-Prostaglandins, and Clinical Correlates</td>
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<td>Wed 2-5.00PM</td>
<td>Lab 03</td>
<td>Research Paper -3</td>
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<td>Thu 2-3.30PM</td>
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<td>Hypothalamus and Pituitary Endocrine Disorders</td>
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<td>04</td>
<td>Tue 2-3.30PM</td>
<td>07.</td>
<td>Part-1: Pineal Gland, Circadian Rhythm and Sleep Cycle Part-2: Neuroendocrine Control of Puberty Functional Anatomy, Endocrine Regulations and Disorders</td>
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<td>Wed 2-5.00PM</td>
<td>Lab 04</td>
<td>Research Paper Groups Discussion-1</td>
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<td>Thu 2-3.30PM</td>
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<td>REVIEW AND DISCUSSION-1</td>
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<td>05</td>
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<td>Lab 05</td>
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<td>Lecture/Activity</td>
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<tr>
<td>Thu</td>
<td>2-3.30PM</td>
<td>08. Neuroendocrine Control of Breast/Mammary Gland: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
<td></td>
</tr>
<tr>
<td>Tue</td>
<td>2-3.30PM</td>
<td>09. Neuroendocrine Control Female Reproduction: Part-1. Functional Anatomy, Endocrine Regulations and Endocrine Disorders of Ovary</td>
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<tr>
<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 06 Research Paper -5</td>
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<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 07 Research Paper -6</td>
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<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 08 Research Paper -7</td>
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<tr>
<td>Thu</td>
<td>2-3.30PM</td>
<td>14. Neuroendocrine Control of Testis and Male Reproductive Tract: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<tr>
<td>Tue</td>
<td>2-3.30PM</td>
<td>Dr. REVIEW AND DISCUSSION-2</td>
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<tr>
<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 09 Research Paper Groups Discussion-2</td>
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<td>Thu</td>
<td>2-3.30PM</td>
<td>Dr. EXAM-2</td>
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<tr>
<td>Tue</td>
<td>2-3.30PM</td>
<td>15. Neuroendocrine Control of Adrenal and Kidney: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<tr>
<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 10 Research Paper -8</td>
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<tr>
<td>Tue</td>
<td>2-3.30PM</td>
<td>17. Neuroendocrine Control of Obesity: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 11 Research Paper -9</td>
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<td>Thu</td>
<td>2-3.30PM</td>
<td>18. Neuroendocrine Control of Thyroid: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Tue</td>
<td>2-3.30PM</td>
<td>19. Neuroendocrine Control of Parathyroid: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Wed</td>
<td>2-5.00PM</td>
<td>Lab 12 Research Paper -10</td>
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<td>Date</td>
<td>Time</td>
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<tr>
<td>20.</td>
<td>Thu</td>
<td>Neuroendocrine Control of Aging: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>2.</td>
<td>Tue</td>
<td>Neuroendocrine Control Learning and Memory: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<tr>
<td>13</td>
<td>Wed</td>
<td>Research Paper - 11</td>
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<td>13</td>
<td>Thu</td>
<td>Thanks giving week-end</td>
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<td>13</td>
<td>Thu</td>
<td>No Class</td>
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| 14   | Tue   | REVIEW AND DISCUSSION-3
TAKE HOME FINAL EXAM ASSIGNMENT WILL BE GIVEN |
<p>| 14   | Wed   | Research Paper Groups Discussion-3                                      |
| 14   | Thu   | EXAM-3                                                                   |
| 14   | Tue   | Reading                                                                  |
| 15   | Tue   | FINAL EXAM. Return the final exam assignment between 2-3:30 pm to Dr. Arosh by Email or hard copy. |
| 15   | Tue   | Evaluation and Grading                                                  |</p>
<table>
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<tr>
<th></th>
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<th>PhD</th>
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<tr>
<td><strong>Number of Lectures</strong></td>
<td>No Difference</td>
<td>No Difference</td>
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<td><strong>Journal Articles</strong></td>
<td>No</td>
<td>Research papers 12 will be given</td>
<td>Research papers 12 will be given</td>
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<tr>
<td><strong>Exam 1</strong></td>
<td>Questions will be from class notes</td>
<td>Questions will be from class notes and research papers</td>
<td>Questions will be from class notes and research papers</td>
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<tr>
<td><strong>Exam 2</strong></td>
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<tr>
<td><strong>Exam 3</strong></td>
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<tr>
<td><strong>Final Exam</strong></td>
<td>Descriptive questions will be from class notes.</td>
<td>Descriptive questions will be from class notes and research papers.</td>
<td>Project. It includes literature review and project writing of minimum 10 pages.</td>
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<td><strong>Grading</strong></td>
<td>Exam-1: 15</td>
<td>Exam-1: 10</td>
<td>Exam-1: 10</td>
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<td>Exam-2: 15</td>
<td>Exam-2: 10</td>
<td>Exam-2: 10</td>
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<td>Exam-3: 15</td>
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<td>Final Exam: 35</td>
<td>Final Exam: 40</td>
<td>Final Exam: 40</td>
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<td></td>
<td>Review &amp;Discussion: 09</td>
<td>Review &amp;Discussion: 09</td>
<td>Review &amp;Discussion: 09</td>
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<td></td>
<td>Attendance: 11</td>
<td>Recitation 10</td>
<td>Recitation 10</td>
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<td></td>
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<td>Total 100</td>
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</table>
Course Changes
Texas A&M University
Departmental Request for a Change in Course
Undergraduate ♦ Graduate ♦ Professional
• Submit original form and attachments •

Form Instructions
1. Course request type: ☐ Undergraduate ☑ Graduate ☐ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Aerospace Engineering
3. Course prefix, number and complete title of course: AERO 601 Principles of Fluid Motion

Attach a brief supporting statement for changes made to items 4a then 4d and 10 below.

4. Change requested
   a. Prerequisite(s): From: ___________ To: ___________
   b. Withdrawal (reason): ___________
   c. Cross-list with: ___________

   Cross-listed courses require the signature of both department heads.

   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.

   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.

5. Is this an existing core curriculum course?
   ☐ Yes ☑ No

6. If grade type is changing for existing course, indicate the new grade type:
   ☐ Grade ☐ S/U ☐ P/F (CLMD)

7. If this course will be stacked, please indicate the course number of the stacked course:
   ☐ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

8. Complete current course title and current catalog course description:
   AERO 601 Principles of Fluid Motion. Formulation of equations of motion for fluid flow; theoretical and numerical solution methods for potential (ideal) flow; application to thin and thick airfoil and wind aerodynamics; complex variable methods for potential flow.

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   AERO 601 Advanced Aerodynamics. Theoretical and approximate numerical solutions for incompressible and transonic flows and applications to airfoil, wing and whole-vehicle aerodynamics; approximate methods for boundary layers; introduction to aerodynamic design concepts; design of swept wings and delta wings, control surfaces, winglets, vortex generators and flow control.

10. Complete proposed course title and proposed catalog course description (not to exceed 50 words):

   a. As currently in course inventory:

      | Prefix | Course # | Title (excluding punctuation) |
      |--------|----------|-------------------------------|
      | AERO   | 601      | PRIN OF FLUID MOTION          |

      | Lec. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | EICE Code | Level |
      | 4.00 | 0.00 | 4.00 | 1402010006 | 0100 | 0 0 3 6 3 2 6 |

   b. Change to:

      | Prefix | Course # | Title (excluding punctuation) |
      |--------|----------|-------------------------------|
      | AERO   | 601      | ADVANCED AERODYNAMICS         |

      | Lec. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | EICE Code | Level |
      | 3.00 | 0.00 | 3.00 | 1402010006 | 0100 | 15 10 16 0 3 6 3 2 |

   Approval recommended by:

   Vikram K. Kinna
   Department Head of Program Chair (Type Name & Sign) Date

   John Criscione
   Chair, College Review Committee Date

   John Criscione
   Dean of College Date

   Karen Buttery-Purry
   Chair, GC or UCC Date

   Submitted to Coordinating Board by:

   Associate Director, Curricular Services

   Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 08/14
AERO 601 Advanced Aerodynamics
Credit 3: (3-0), Graduate Elective
FALL 2015

Day/Time/Location: To be determined

Course Description:
Theoretical and approximate numerical solutions for incompressible and transonic flows and applications to airfoil, wing and whole-vehicle aerodynamics. Approximate methods for boundary layers. Introduction to aerodynamic design concepts. Design of swept wings and delta wings, control surfaces, winglets, vortex generators and flow control.

Prerequisites:
- Graduate student status.

Instructor:
Edward B. White.  ebw@tamu.edu
Phone: 979-862-6446
Office Hours: TBD or by appointment

Textbook and Required Material:

Learning Objectives:
At the conclusion of this course, students will be able to
- Select, size and configure airfoils, wings and control actuators to meet aircraft Aerodynamic design objectives.
- Apply classical analytical and approximate methods for low-Mach-number airfoil and finite wing analysis and wind-tunnel data correction
- Use approximate methods to analyze airfoil and wing performance in the transonic regime.

Content Schedule:
24 75-minute lectures plus 6 sessions for project assignments, discussion and presentations, mid-term exam, miscellaneous topics and topic over-run. Link for the University Academic Calendar is: http://registrar.tamu.edu/General/Calendar.aspx

Significant Dates:
Mid-Term Exam  Week 7, _______ date to be determined per University Academic Calendar
Project #1 Due  Week 7, _______ date to be determined
Project #2 Due  Week 15, _______ date due Final Exam date per University Academic Calendar
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Week 1-2</td>
<td>Introduction: aerodynamic design objectives and basic concepts</td>
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<tr>
<td>Week 2-4</td>
<td>Review of incompressible analysis concepts:</td>
</tr>
<tr>
<td></td>
<td>o Steady and unsteady 2D and 3D potential flow</td>
</tr>
<tr>
<td></td>
<td>o Thin airfoil theory</td>
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<tr>
<td></td>
<td>o Finite wing theory</td>
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<tr>
<td>Week 5</td>
<td>2D and 3D panel methods</td>
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<tr>
<td>Week 6-7</td>
<td>Boundary layers and drag</td>
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<tr>
<td>Week 7</td>
<td><strong>Mid-Term Exam / Project #1 is Due</strong></td>
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<tr>
<td>Week 8</td>
<td>Separation, CL max and high-lift configurations</td>
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<tr>
<td>Week 9-10</td>
<td>Vehicle stability, trim, control surfaces and interference</td>
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<tr>
<td>Week 11</td>
<td>Swept wings and delta wings</td>
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<tr>
<td>Week 12</td>
<td>Wind tunnel testing considerations</td>
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<tr>
<td>Week 13-14</td>
<td>Transonic flow:</td>
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<tr>
<td></td>
<td>o Isentropic compressible flow concepts</td>
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<tr>
<td></td>
<td>o Small-disturbance approximations</td>
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<tr>
<td></td>
<td>o Prandtl-Glauert correction and critical Mach number</td>
</tr>
<tr>
<td></td>
<td>o Compressible boundary layers</td>
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<tr>
<td>Week 15</td>
<td><strong>Project #2 is Due by University Final Exam date</strong></td>
</tr>
</tbody>
</table>

**Method of Evaluation / Grading Policy:**

Standard Letter Grading Scale: A ≥90%, B ≥ 80%, C ≥ 65%, D ≥ 50%, F < 49%.

- 30% homework assignments (equally weighted), 20% midterm exam, 50% for two projects (equally weighted)
- No final exam.
- *Late homework will be accepted for full credit only with the consent of the instructor at least 24 hours prior to class on the due date or due to a University excused absence.*
  You are responsible for any material covered and/or any assignments given even if absent from class. 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](http://student-rules.tamu.edu/rule07).
- Working with other students on assignments is permitted and encouraged. However, every student must submit an independent solution. Please consult the Academic Integrity statement and the instructor for clarification, if necessary.

**Academic Integrity:**

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

The Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living under this code will be no problem, as it asks nothing of a person that is beyond reason. It only calls for honesty and integrity, characteristics that Aggies have always exemplified. As commonly defined, plagiarism consists of passing off as one's own the ideas, work, writings, etc., that 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 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 questions regarding plagiarism, please visit [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)
and consult the latest issue of the Texas A&M University Student Rules at http://student-rules.tamu.edu/. Or, consult the instructor.

ADA 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 additional information visit http://disability.tamu.edu.

Copyright
The handouts used in this course are copyrighted. By “handouts” we mean all materials generated for this class which include both paper copies distributed in class and electronic copies. The handouts include but are not limited to the syllabus, lecture notes, homework problems, reference material, and review sheets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless the instructor expressly grants permission.

Revised: Nov. 4, 2014
November 3, 2014

MEMORANDUM

TO: Graduate Council

THRU: Dr. John Criscione
      Associate Dean for Graduate Programs
      College of Engineering
      129 Zachry

FROM: Dr. Vikram K. Kinra
      Professor and Graduate Program Coordinator
      739 H. R. Bright

RE: Change Course Title, Content, Contact Hours Request: AERO 601
    Principles of Fluid Motion (proposed title: Advanced Aerodynamics)

Aerospace Engineering (AE) proposes to update the title and content of AERO 601 and reduce it from 4 to 3 credit hours. The current title is Principles of Fluid Motion. The proposed title is Advanced Aerodynamics. The new content reflects evolving course content across the graduate curriculum and an effort to make this course more relevant to more students and to modern industrial practice. The title change simply reflects the revised content.

The current version of AERO 601, Principles of Fluid Motion, was taught in AE for many years (most recently in 2012) as the foundational graduate course in fluid mechanics and aerodynamics. Its content focused on theoretical concepts related to inviscid potential flow and solutions of the associated governing equations. Much of this content has become outdated and, accordingly, AE recently decided to designate AERO 602, Theory of Fluid Mechanics as the foundational graduate course in fluid mechanics. That course covers viscous flows and provides a better venue for rigorously developing the governing equations and solving various reduced forms of those equations.

While AERO 602 is the better choice for the foundational fluid mechanics course, a need exists for an introduction to aerodynamics, particularly as it applies to modern commercial aircraft. The revised content (and title) for AERO 601 will meet this need. The revised course will begin with a review of aerodynamic concepts and inviscid flow theory covered in AERO 301. This will be a useful review for graduate students with an AE undergraduate degree and will fill an essential need for students entering AE from other departments. After (re)establishing the basics, the class will cover (1) application of inviscid concepts to whole-vehicle aerodynamics, (2) coupling between inviscid and viscous flow regions, and (3) the role of various aircraft components. The final major phase of the course will be an introduction to transonic aerodynamics just below the speed of sound. Transonic behavior is not covered in required undergraduate curriculum yet is where most commercial aircraft operate. It is important material to emphasize at the graduate level.

cc: file + Dr. Bowersox
    Dr. White

H.R. Bright Building, Suite 701
3141 TAMU
College Station, TX 77843-3141

Tel. 979.845-7541. Fax 979.845-6051
http://engineering.tamu.edu/aerospace/
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
• Submit original form and attachments •

Form Instructions
1. Request submitted by (Department or Program Name): History
2. Course prefix, number and complete title of course: HIST 678. Comparative Border Studies.
3. Change requested
   a. Prerequisite(s): From: ______________________ To: ______________________
   b. Withdrawal (reason): ______________________
   c. Cross-list with: ______________________
   d. Change in course title and description. Enter complete current course title and current course description in item 5; enter proposed course title and proposed course description in item 6. Complete item 7 for change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 7. Attach a course syllabus.
4. For informational purposes only, please indicate course number if this course will be stacked: ______________________
5. Complete current course title and current catalog course description:

   HIST 678. Comparative Border Studies. (3-0). Credit 3. Questions how groups create, articulate, enforce, and challenge difference; brings together disparate historiographies to consider a variety of theoretical and methodological approaches used in understanding borders; examines contact, conflict, and change across various kinds of historical and cultural boundaries. Prerequisite: Graduate classification.

6. Complete proposed course title and proposed catalog course description (not to exceed 50 words):

   HIST 678. Readings in the Southwest and its Borders (3-0). Credit 3. Reading seminar focusing on how groups in the American Southwest create, articulate, enforce, and challenge difference; brings together disparate historiographies to consider a variety of theoretical and methodological approaches used in understanding borders; examines contact, conflict, and change across various kinds of historical and cultural boundaries. May be taken two times for credit as content varies. Prerequisite: Graduate classification.

7. a. As currently in course inventory:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
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<tbody>
<tr>
<td>HIST 678</td>
<td>COMPARATIVE BORDER STUDY</td>
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   b. Change to:

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<th>Title (excluding punctuation)</th>
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<td>HIST 678</td>
<td>RDG SEM IN SW BORDER</td>
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   Approval recommended by: Dr. David Vaught 11/1/13
   Chair, College Review Committee
   Date
   Chair, GC or UCC
   Date
   Effective Date
   Date

   Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
   Curricular Services – 02/11
You may insert your syllabus (Word document) to this section of the form. Simply delete this paragraph and use the Insert/File option in the menu bar to insert your syllabus. If you cut and paste your syllabus, it is recommended that you first paste it after this statement and then delete this paragraph. Otherwise, it will lock the syllabus as read-only.

HIST 678 Comparative Border Studies  Title and Description Change Request
Some variant of the history of the Southwest has long been a part of the graduate program in the Department of History, and that field of emphasis was continued with the inclusion in our strategic plan of the Southwest and its Borders cluster. This field of study is best served by placing it in a broad and comparative framework, and that was the basic intent of the creation of the Southwest and its Borders cluster. The international reputation and validity of the study of borders and border regions was recently confirmed in “Margins to Mainstream: The Brave New World of Borderlands History,” Journal of American History 98 (September 2011): 337-437. This special issue of one of the leading history journals and the explosion in literature on cultural and border history over the past two decades indicate that this will long remain a viable and important approach that if followed will ensure that the study of the Southwest continues to avoid the parochialism and narrow focus of the past. This course will equip students with the methods, approaches, and knowledge of historiography needed to produce a top flight dissertation and excel in the study of the Southwest.
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
• Submit original form and attachments •

Form Instructions
1. Request submitted by (Department or Program Name): Department of History

2. Course prefix, number and complete title of course: HIST 679. Topics in Comparative Border Studies. (3-0). Credit 3

3. Change requested
   a. Prerequisite(s): From: To:
   b. Withdrawal (reason):
   c. Cross-list with:
   d. Change in course title and description. Enter complete current course title and current course description in item 5; enter proposed course title and proposed course description in item 6. Complete item 7 for change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 7. Attach a course syllabus.

4. For informational purposes only, please indicate course number if this course will be stacked:

5. Complete current course title and current catalog course description:
   HIST 679. Topics in Comparative Border Studies. (3-0). Credit 3. Selected topics and themes in an identified area of Comparative Border Studies. May be taken two times for credit as content varies. Prerequisite: Graduate classification.

6. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   HIST 679 Research Seminar in the Southwest and its Borders (3-0). Credit 3. Research and writing seminar focusing on selected topics and themes in an identified area of Southwest Border Studies. May be taken two times for credit as content varies. Prerequisite: Graduate classification.

7. a. As currently in course inventory:
   Prefix  Course #  Title (excluding punctuation)  Cmp  Border  Study
   HIST 679  TOPIC  COMP  BORDER  STUDY
   Lecture  Lab  S/C  CP and Fund Code  Admin. Unit  HEC Code  Level
   0300003540101000114500036326
   b. Change to:
   Prefix  Course #  Title (excluding punctuation)  Cmp  Border  Study
   HIST 679  RES  S/W  BORDER
   Lecture  Lab  S/C  CP and Fund Code  Admin. Unit  HEC Code  Level
   03000035401010001145014-150003632

Approval recommended:

Dr. David Vaught 1/11/13

Department Head or Program Chair (Type Name & Sign)  Date

Chair, College Review Committee

Department Head or Program Chair (Type Name & Sign)  Date
(if cross-listed course)

Dean of College

Submitted to Coordinating Board by:

Chair, GC or UCC  Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 02/11
You may insert your syllabus (Word document) to this section of the form. Simply delete this paragraph and use the Insert/File option in the menu bar to insert your syllabus. If you cut and paste your syllabus, it is recommended that you first paste it after this statement and then delete this paragraph. Otherwise, it will lock the syllabus as read-only.

**HIST 679 Topics in Comparative Border Studies  Title and Description Change Request**

Some variant of the history of the Southwest has long been a part of the graduate program in the Department of History, and that field of emphasis was continued with the inclusion in our strategic plan of the Southwest and its Borders cluster. This field of study is best served by placing it in a broad and comparative framework, and that was the basic intent of the creation of the Southwest and its Borders cluster. The international reputation and validity of the study of borders and border regions was recently confirmed in “Margins to Mainstream: The Brave New World of Borderlands History,” *Journal of American History* 98 (September 2011): 337-437. This special issue of one of the leading history journals and the explosion in literature on cultural and border history over the past two decades indicate that this will long remain a viable and important approach that if followed will ensure that the study of the Southwest continues to avoid the parochialism and narrow focus of the past. This course will focus on particular aspects of the Southwest Borders and would also draw upon and reinforce several of our other thematic clusters including Caribbean/Atlantic World, Chicano/Latino, and Race, Ethnicity, and Migration. Thus the course would be essential in building and maintaining bridges between our clusters.
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
- Submit original form and attachments -

1. Request submitted by (Department or Program Name):
   Department of Information and Operations Management

2. Course prefix, number and complete title of course:
   ISYS 631. Information Systems Design and Development Project

3. Change requested
   Attach a brief supporting statement for changes made to items 3a thru 3d, and 6 below.
   a. Prerequisite(s): From:
      Graduate classification in business and knowledge of one programming language
      To:
   b. Withdrawal (reason):
   c. Cross-list with:
      Cross-listed courses require the signature of both department heads.
   d. Change in course title and description. Enter complete current course title and current course description in item 5; enter proposed course title and proposed course description in item 6. Complete item 7 for change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 7. Attach a course syllabus.

4. For informational purposes only, please indicate course number if this course will be stacked:

5. Complete current course title and current catalog course description:

6. Complete proposed course title and proposed catalog course description (not to exceed 50 words):

7. a. As currently in course inventory:

<table>
<thead>
<tr>
<th>Prefix</th>
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<th>Title (excluding punctuation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISYS</td>
<td>631</td>
<td>IS DESIGN &amp; DEVELOP PROJ</td>
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<tr>
<td>Lect.</td>
<td>Lab</td>
<td>SCH CIP and Fund Code</td>
</tr>
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<td>03 11 05 01 00 06</td>
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<td>Admin. Unit</td>
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<td>Level</td>
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<td>16</td>
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<td>00 36 32 6</td>
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b. Change to:

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<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Lect.</td>
<td>Lab</td>
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<td>Level</td>
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<td></td>
<td></td>
<td>00 36 32 6</td>
</tr>
</tbody>
</table>

Approval recommended by:

Rich Matters
Department Head or Program Chair (Type Name & Sign) Date

Mary Lea McAnally
Chair, College Review Committee Date

Mary Lea McAnally
Dean of College Date

Submitted to Coordinating Board by:

Chair, GC or UCC Date

Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 02/11
Texas A&M University  
Departmental Request for a Change in Course  
Undergraduate • Graduate • Professional  
• Submit original form and attachments •

Form Instructions
1. Course request type:  
   ☐ Undergraduate  ☑ Graduate  ☐ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): TAMU HSC COM Graduate Studies
3. Course prefix, number and complete title of course:  SGSI 600 - Development and Commercialization of Human Therapeutics
4. Change requested  
   a. Prerequisite(s): From: ____________ To: ____________
   b. Withdrawal (reason): __________________________________________________________________________________________
   c. Cross-list with: __________________________________________________________________________________________
   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.
5. Is this an existing core curriculum course?  
   ☐ Yes  ☑ No
6. If grade type is changing for existing course, indicate the new grade type:  
   ☐ Grade  ☐ S/U  ☑ P/F (CLAD)
7. If this course will be stacked, please indicate the course number of the stacked course: __________________________________________________________________________________________
8. I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-contROLS-basics-for-distance-education).
9. Complete current course title and current catalog course description:  
   SGSI 600 - This course will cover the fundamentals of the commercialization of human therapeutics from research and discovery through clinical development. In the course, student will gain an understanding of the process of the development and commercialization of human therapeutic from early discovery through regulatory and product development to early clinical trials. Additionally, practical exercises in the business of building and maintaining a biotechnology company will be explored.
10. Complete proposed course title and proposed catalog course description (not to exceed 50 words):  
    MSCI 608 - Survey the principles and concepts of commercializing a human pharmaceutical drug within the context of a startup biotechnology; emphasis is on the issues and concepts encountered in either academic or industrial careers in moving potential pharmaceutical drug towards approved therapeutic.

11. a. As currently in course inventory:  

<table>
<thead>
<tr>
<th>Course Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGSI</td>
<td>600</td>
<td>Dev &amp; Comm of Human Therap</td>
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<tr>
<td>Units</td>
<td>Lab</td>
<td>Other</td>
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<tr>
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<td>0.00</td>
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</table>

b. Change to:  

<table>
<thead>
<tr>
<th>Course Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI</td>
<td>608</td>
<td>Dev &amp; Comm of Human Therap</td>
</tr>
<tr>
<td>Units</td>
<td>Lab</td>
<td>Other</td>
</tr>
<tr>
<td>2.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Approval recommended by:  
Dr. Van Wilson  
Department Head or Program Chair (Type Name & Sign)  Date  12/14/14

Dr. Van Wilson  
Chair, College Review Committee  Date  12/14/14

Dr. Paul Ogden  
Dean of College  Date  12/14/14

Submitted to Coordinating Board by:  
Associate Director, Curricular Services  Date  08/14

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu  
Curricular Services – 08/14
MSCI 608
Development and Commercialization of a Human Therapeutic
Term (e.g., Fall 200X) Spring 2015
Meeting times and location Tuesday and Thursday 1-2 pm

Course Description and Prerequisites
The primary objective of this course is to survey the principles and concepts of commercializing a human pharmaceutical drug within the context of a startup biotechnology for graduate students. The course emphasizes the issues and concepts graduate students may encounter in either an academic or industrial careers in moving a potential pharmaceutical drug towards an approved therapeutic.

Learning Outcomes
As a result of taking this course, students should appreciate and understand:

- The issues of commercializing a pharmaceutical drug within the context of an academic setting,
- University technology transfer practices and fundamentals of patent law,
- An overview of the fundamentals of new company formation and funding,
- Market research, clinical relevance and
- An overview of the role of the FDA and the process of drug development leading to an IND Application.

Instructor Information
Name: Joe Jilka, Ph.D.
Telephone number: 979-436-0586
Email address: Jilka@medicine.tamhsc.edu
Office hours: 2-3 Tuesdays and Thursdays
Office location: TBD

Textbook and/or Resource Material
No formal textbook – various reading materials to be handed out or made available online prior to each lecture.

Grading Policies
There will be three one-hour exams during the semester and a final exam at the end of the term. Each examination will consist of 50 multiple choice questions worth 2 points each, for a total of 100 points. The final exam will not be comprehensive, but will consist of a 100 point exam of last four weeks of class time. Eleven 10 point quizzes, consisting of 10 multiple choice questions each, will be taken on-line during the semester. Grades will be assigned as a percentage of total points (500) acquired in the four exams and 10 highest quiz scores.

A = 90% (450-500 points)
B = 80-89% (400-449 points)
C=70-79% (350-399 points)  
D=60-69% (300-349 points)  
F=0-59% (<299 points)

**Attendance and Make-up Policies**

**ATTENDANCE & MAKE-UP POLICY**

Students are expected to attend class and complete all assignments. The university policy on excused absences is described in Student Rule 7 (http://student-rules.tamu.edu/rule07). It is the student's responsibility to provide evidence to substantiate excused absence requests. All class that are missed will be made up by reviewing the appropriate class recording and submitting a written overview of the topic. If more than two absences occur, the student will receive an "I" in the class and will have to make up the class by working with the instructors to remediate missed sections.

**Course Topics, Calendar of Activities, Major Assignment Dates**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INTRO Intro to Class- What is biotech The History and Current State of Biotechnology in Texas</td>
<td>Handouts</td>
</tr>
<tr>
<td>2</td>
<td>Research and Development; Transitioning from Academic to Business Settings</td>
<td>Handouts</td>
</tr>
<tr>
<td>3</td>
<td>Technology Transfer: How the University Technology Transfer Process Works</td>
<td>Handouts</td>
</tr>
<tr>
<td>4</td>
<td>Fundamentals of Patent Law</td>
<td>Handouts</td>
</tr>
<tr>
<td>5</td>
<td>Pursuing Start-up Company Opportunities: Part 1</td>
<td>Handouts</td>
</tr>
<tr>
<td>6</td>
<td>Pursuing Start-up Company Opportunities: Part 2 The Market Rules!</td>
<td>Handouts</td>
</tr>
<tr>
<td>7</td>
<td>Pursuing Start-up Company Opportunities: Part 2 cont. - Understanding Markets</td>
<td>Handouts</td>
</tr>
<tr>
<td>8</td>
<td>Building and Funding the Business: Early Stage Funding</td>
<td>Handouts</td>
</tr>
<tr>
<td>9</td>
<td>Product Development: Chemistry, Manufacturing and Controls</td>
<td>Handouts</td>
</tr>
<tr>
<td>10</td>
<td>Regulatory Concerns: Navigating the FDA</td>
<td>Handouts</td>
</tr>
<tr>
<td>11</td>
<td>Regulatory Concerns: Clinical Research, Clinical Trials, and Development</td>
<td>Handouts</td>
</tr>
</tbody>
</table>
Regulatory Concerns: Handouts
PharmTox

Regulatory Concerns: Handouts
Submitting an IND application and Beyond

Presentations

Final

Other Pertinent Course Information

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

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

"An Aggie does not lie, cheat, or steal, or tolerate those who do."
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
Submit original form and attachments

Form Instructions
1. Course request type: □ Undergraduate ✔ Graduate □ First Professional (e.g. Law, Med, Dent, Pharm, etc.)
2. Request submitted by: (Department or Program Name): TAMU HSC COM Graduate Studies
3. Course prefix, number and complete title of course: SGSI 601 - Responsible Conduct of Research

4. Change requested
   a. Prerequisite(s): From: ___________________________ To: ___________________________
   b. Withdrawal (reason): ___________________________
   c. Cross-listed with: ___________________________

   Cross-listed courses require the signature of both department heads.

   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.

5. Is this an existing core curriculum course? □ Yes ✔ No

6. If grade type is changing for existing course, indicate the new grade type: □ Grade □ S/U □ P/F (CLMD)

7. If this course will be stacked, please indicate the course number of the stacked course:
   □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education)

8. Complete current course title and current catalog course description:
   Responsible Conduct of Research - Responsible Conduct of Research (RCR) is defined by NIH as the practice of scientific investigation with integrity. It involves the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research. Responsible conduct of research is an essential component of research training. This course is designed as a survey of basic topics that trainees will need to understand as they enter into the practice of research. The course will utilize outside reading assignments.

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):

10. Submitted to Coordinating Board by:
   □ Chair, GC or UCC □ Date
   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services - 08/14
Course title and number  Responsible Conduct of Research  MSCI 609  
Term  Fall 2014  
Meeting times and location  Mondays at 12:00 pm-12:50 pm  MREB 1157, MEC 206**, Alkek 1105  
  *9/1  Class will start at 12:10, 9/22, 9/29  MEC 207  
Course Description and Prerequisites  
Responsible Conduct of Research (RCR) is defined by NIH as the practice of scientific investigation with integrity. It involves the awareness and application of established professional norms and ethical principles in the performance of all activities related to scientific research. Responsible conduct of research is an essential component of research training. This course is designed as a survey of basic topics that trainees will need to understand as they enter into the practice of research. The course will utilize outside reading assignments, online modules, class presentation and discussion of cases associated with each topic.  
Learning Outcomes  
The objective of this course is to provide awareness and application of professional norms and ethical principles in the performance of all activities related to scientific research, including mechanisms to promote honesty, accuracy, efficiency and objectivity in research.  
Instructor Information  
Name  Emily Wilson, PhD, Melissa Kahl-McDonagh, PhD  
Telephone number  979-436-9142, 979-436-0591  
Email address  ewilson@tamhsc.edu, kahl-mcdonagh@tamhsc.edu  
Office hours  Before and after class and upon request  
Office location  CB1 Room 3113, Reynolds 154C  
Textbook and/or Resource Material  
Students will take online modules for CITI training in Biomedical Science Prior to the weeks discussion on that topic. There are 11 modules required to complete the CITI RCR certification. Individual lecturers may provide handouts or reading material for the course.  
http://vpr.tamu.edu/researchadmin/FACompliance/responsible-conduct-of-research/responsible-conduct-of-research  
To register with CITI, go to the website above and click on the line that says CITI Course in Responsible Conduct of Research. This will take you to the CITI website. You will need to create an account. List Texas A&M University as your institution. You will then pick Biomedical Responsible Conduct of Research as the Course. You will need to accept the Assurance Statement and then it will allow you to progress to the individual modules. Prior to
the first class, review the first module, Introduction to Responsible Conduct of Research and the module on Mentoring.

NOTE: The modules in CITI do not follow the same order as we will but you can do them out of order.

### Grading Policies

<table>
<thead>
<tr>
<th>Completion of CITI training</th>
<th>(20%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation /Homework</td>
<td>(50 %)</td>
</tr>
<tr>
<td>Project/Presentation</td>
<td>(30 %)</td>
</tr>
</tbody>
</table>

Approximately 5 homework assignments will be made during the course. Homework will be due before class the following week.

### Grades:

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

### Attendance and Make-up Policies

Students are expected to attend class and complete all assignments. The university policy on excused absences is described in Student Rule 7 (http://student-rules.tamu.edu/rule07). It is the student’s responsibility to provide evidence to substantiate excused absence requests. All class that are missed will be made up by reviewing the appropriate class recording and submitting a written overview of the topic. If more than two absences occur, the student will receive an “I” in the class and will have to make up the class by working with the instructors to remediate missed sections.

### Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
<th>Week</th>
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</table>
| 1, Sept 1 | Introduction to Course  
Mentor/Mentee Responsibilities—V Wilson | CITI Introduction to Responsible Conduct of Research  
Mentor and Trainee Responsibilities |
| 2, Sept 8 | Data Acquisition/Management  
D. Bridges | CITI Data Acquisition, Management, Sharing, and Ownership |
<table>
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<tr>
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<th>Topic</th>
<th>Instructor(s)</th>
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<tr>
<td>3, Sept. 15</td>
<td>Introduction to Research Compliance</td>
<td>D. Carlson</td>
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<tr>
<td>4, Sept 22</td>
<td>Biosafety</td>
<td>M. Kahl-McDonagh</td>
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<tr>
<td>5, Sept 29</td>
<td>Animal Research-The Investigator Perspective</td>
<td>F. Sohrabji, H. Andrews-Poynenis, M. Muthuchamy</td>
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<td>6, Oct. 6</td>
<td>Animal Research, The Institutional Perspective</td>
<td>J. Elliot</td>
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<td>7, Oct. 13</td>
<td>Conflict of Interest</td>
<td>A. Ficht</td>
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<td>8, Oct 20</td>
<td>Human Subjects</td>
<td>P. Hicks</td>
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<tr>
<td>9, Oct. 27</td>
<td>Collaborative Research</td>
<td>P. Davies</td>
</tr>
<tr>
<td>10, Nov. 3</td>
<td>Publication/Authorship/Peer Review</td>
<td>E. Wilson</td>
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<tr>
<td>11, Nov. 10</td>
<td>Scientists and responsible members of Society</td>
<td>J. Brender</td>
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<tr>
<td>12, Nov. 17</td>
<td>Scientific Misconduct</td>
<td>D. Carlson</td>
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<tr>
<td>13, Nov. 24</td>
<td>Student Presentations</td>
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<td>14, Dec. 1</td>
<td>Student Presentations</td>
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<tr>
<td>15, Dec. 8</td>
<td>Student Presentations</td>
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</table>

**Other Pertinent Course Information**

**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 845-1537. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu)

**Academic Integrity**

For additional information please visit [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)

"An Aggie does not lie, cheat, or steal, or tolerate those who do."
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
Submit original form and attachments

Form Instructions:
1. Course request type: □ Undergraduate  □ Graduate  □ First Professional
2. Request submitted by (Department or Program Name): TAMU HSC COM Graduate Studies
3. Course prefix, number and complete title of course: SGSI 602 - Training Tomorrow's Life Science Entrepreneurs: A Practicum Course
4. Change requested:
   a. Prerequisite(s): From: __________________________ To: __________________________
   b. Withdrawal (reason): __________________________
   c. Cross-list with: __________________________
   d. Change in course title and description. Enter complete current course title and current course description in item 10; enter proposed course title and proposed course description in item 10. Complete item 11a and b. Attach a course syllabus.
5. Is this an existing core curriculum course? □ Yes  □ No
6. If grade type is changing for existing course, indicate the new grade type: □ Grade  □ S/U  □ P/F (CLMB)
7. If this course will be stacked, please indicate the course number of the stacked course: __________________________
   □ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-control/export-control-basics-for-distance-education).
8. Complete current course title and current catalog course description:
   SGSI 602 - Training Tomorrow's Life Science Entrepreneurs: A Practicum Course in the Development and Management. (3-0). Credit 3. A practicum course to provide the student with a practical hands on experience and knowledge of the creation and development of a life science biotechnology company. Students will work as part of a startup biotechnology company to assist in the early development and management of the company.
9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   MSCI 607 - Life Science Entrepreneurship - Independent study designed as an introduction and overview of the commercialization process involved in moving a research discovery from the bench to the market.

10. Approval recommended by:
    Dr. Van Wilson  □ Yes  □ No
    Department Head or Program Chair (Type Name & Sign)  Date

Dr. Van Wilson
Chair, College Review Committee  Date
Dean of College  Date

Dr. Van Wilson
VACL VAIL

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 08/14
MSCI 607
Term (e.g., Fall 200X) Spring 2015
Meeting times and location Weekly appointment with Instructor

Course Description and Prerequisites

The primary objective of this independent study class is to gain an introduction and overview of the commercialization process involved in moving a research discovery from the bench to the market. Students will use real life examples of technologies from HSC research to research markets, determine potential products, determine clinical relevance of products through interactions with clinicians, ascertain competitive market, and formulate legal and regulatory strategies. Deliverables include executive summaries of each topic area to form the nucleus of business plan for a life science startup.

Learning Outcomes

As a result of taking this course, students should appreciate and understand:

- An understanding of the principles of the Lean Canvas model.
- An understanding of the methods to evaluate new technologies including competitive markets and intellectual property.
- An understanding of the basic principles of product development and regulatory development.

Instructor Information

Name Joe Jilka, Ph.D.
Telephone number 979-436-0586
Email address Jilka@medicine.tamhsc.edu
Office hours 2-3 Tuesdays and Thursdays
Office location TBD

Textbook and/or Resource Material

Geoffrey A. Moore
Customers

Guy Kawasaki
Starting Anything

Alexander Osterwalder
Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers

Lawrence T. Friedhoff
Grading Policies

There will be six one page written assignments due throughout the course. The final exam will consist of a business plan using the six written assignments.

Each written assignment will be worth total of 50 points and written assignments will be graded on the basis of clarity and depth of research. The final exam will not be comprehensive, but will consist of a written assignment worth 100 points.

Grades will be assigned as a percentage of the seven hundred total points (400) acquired in the six written assignments and one final written assignment.

A=90%  (330-400 points)
B=80-89%  (260-329 points)
C=70-79%  (190-259 points)
D=60-69%  (120-189 points)
F=0-59%  (<119 points)

Attendance and Make-up Policies

ATTENDANCE & MAKE-UP POLICY

Students are expected to attend class and complete all assignments. The university policy on excused absences is described in Student Rule 7 (http://student-rules.tamu.edu/rule07). It is the student's responsibility to provide evidence to substantiate excused absence requests. All class that are missed will be made up by reviewing the appropriate class recording and submitting a written overview of the topic. If more than two absences occur, the student will receive an "I" in the class and will have to make up the class by working with the instructors to remediate missed sections.

Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>Osterwalder, Maurya, Kawasaki</td>
</tr>
<tr>
<td>2</td>
<td>Product Target Profile:</td>
<td></td>
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<td></td>
<td>Indications and usage</td>
<td></td>
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<tr>
<td>3</td>
<td>Conventional Therapies/ Gold</td>
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<td></td>
<td>Standard Treatment</td>
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<tr>
<td>4</td>
<td>Clinical Relevance- Value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Definition</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Market</td>
<td>Moore</td>
</tr>
<tr>
<td>6</td>
<td>Competitors</td>
<td></td>
</tr>
</tbody>
</table>
Competing Products in Clinical Development

Regulatory Part 1 Friedhoff

Regulatory Part 2

Competitive Intellectual Property

Developing an IP Strategy

Development Plan

Summing It All Up.

Presentations

Finals

Other Pertinent Course Information

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

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

"An Aggie does not lie, cheat, or steal, or tolerate those who do."
Texas A&M University
Departmental Request for a Change in Course
Undergraduate ▪ Graduate ▪ Professional
- Submit original form and attachments -

Form Instructions
1. Course request type:
   - Undergraduate □
   - Graduate □
   - First Professional (DDS, MD, JD, PharmD, DVM) □
2. Request submitted by (Department or Program Name):
   Department of Wildlife and Fisheries Sciences
3. Course prefix, number and complete title of course:
   WFSC 628 Wetland Ecology

4. Change requested
   Attach a brief supporting statement for changes made in items 4a through 4d.
   a. Prerequisite(s): From: ____________________________ To: ____________________________ Graduate classification or Instructor approval.
   b. Withdrawal (reason): ____________________________
   c. Cross-list with: ____________________________ Cross-listed courses require the signature of both department heads.
   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.
5. Is this an existing core curriculum course? □ Yes □ No
6. If grade type is changing for existing course, indicate the new grade type: □ Grade □ S/U □ P/F (CLMD)
7. If this course will be stacked, please indicate the course number of the stacked course:

   I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
8. Complete current course title and current catalog course description:
   Wetland Ecology. Wetlands as ecological systems that are prime habitats for wildlife and fish; geomorphology, hydrology, limnology, plant and animal communities, and human use and management. Prerequisite: WFSC 403 or RLEM 316 or equivalent.*

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   Wetland Ecology and Pollution. Wetlands as ecological systems that are prime habitats for wildlife and fish; geomorphology, hydrology, limnology, plant and animal communities, and humans use and management. Wetlands as ultimate reservoirs of environmental pollutants. Distribution, fate, and effects of environmental pollutants on aquatic and terrestrial wildlife. Prerequisites: Graduate classification or Instructor approval.

10. a. As currently in course inventory:
    
    | Prefix | Course # | Title (excluding punctuation) | Lect | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | ECE Code | Level |
    |--------|----------|-------------------------------|------|-----|-------|-----|-------------------|-------------|---------|-------|
    | WFSC   | 628      | Wetland Ecology               | 3.00 | 0.00|       | 3.00| 0303010005        | 2951        | 0       | 3 6 3 2 |
    |        |          |                               |      |     |       |     |                   |             |         |       |
    |        |          |                               |      |     |       |     |                   |             |         |       |
    |        |          |                               |      |     |       |     |                   |             |         |       |
    b. Change to:
    
    | Prefix | Course # | Title (excluding punctuation) | Lect | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | ECE Code |
    |--------|----------|-------------------------------|------|-----|-------|-----|-------------------|-------------|------------|---------|
    | WFSC   | 628      | Wetland Ecology and Pollution| 3.00 | 0.00|       | 3.00| 0303010005        | 2951        | 15         | 16 0 3 6 3 2 |

Approval recommended by: ____________________________ 31 Oct 2014

Department Head or Program Chair (Type Name & Sign) Date

Chair, College Review Committee Date

Dean of College Date

Submitted to Coordinating Board by: ____________________________

Chair, GC or UCC Date

Associate Director, Curricular Services Date

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 08/14
Mandy,
Here is a description of what I would like to have changed/adjusted for this course. The main thing is the name change or addition of pollution to the title.

COURSE DESCRIPTION
WFSC 628. Wetland Ecology and Pollution (3 Credits)
Wetlands as ecological systems that are prime habitats for wildlife and fish; geomorphology, hydrology, limnology, plant and animal communities, and humans use and management. Wetlands as ultimate reservoirs of environmental pollutants. Distribution, fate, and effects of environmental pollutants on aquatic and terrestrial wildlife. Prerequisites: Graduate classification or Instructor approval.

Justification for proposed change: This course is expanded to provide additional knowledge on the role of wetlands as sources, transformers, and sinks of environmental pollutants.

Thanks for your help.
Miguel
Syllabus
WFSC 628: Wetland Ecology and Pollution
Fall 2014

Instructor: Dr. Miguel A. Mora email: mnora@tamu.edu
Office: 316 Nagle Hall Phone: 845-5775
Office Hours: By appointment
Lecture Periods: T-Th, 11:10-12:25 AM, Nagle 207.

Course Description: This course will provide an overview of, 1) wetlands as ecological systems that are prime habitats for wildlife and fish: geomorphology, hydrology, geochemistry, limnology, plant and animal communities, and humans use and management; and 2) wetlands as ultimate reservoirs of environmental pollutants: distribution, fate, and effects of pollutants, bioaccumulation/biomagnification, biomarkers, endocrine disruptors, and ecological risk assessment. Prerequisites: Graduate classification or Instructor approval.

TEXTBOOKS:

Additional reading materials will be provided in class or posted on e-Campus. Occasionally, material may be provided by email or placed on reserve at the library. It is expected that all handouts will be read and studied along with other assigned readings.

Course policy & expectations:
Attendance to class is strongly encouraged due to the volume of material covered each week and the importance of your feedback each day. The expectations are for each of you to be present and prepared for each class. This will involve turning in assignments on time and having read the assigned material before each class. Successful completion of this course will require a substantial amount of library research, reading, writing, and oral communication. Absences will be handled in accordance with TAMU policies (http://student-rules.tamu.edu/rule07).

Grading:
Your grade in this class (out of a possible 400 points) will be a result of your performance in the four areas listed below. The grading scale will be based on the standard format: 90% to 100% = A; 80% to 89% = B; 70% to 79% = C...scale.

The total number of points for this class (400) will be assigned according to the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm exam</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Final take-home exam</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Class discussions</td>
<td>100</td>
<td>25%</td>
</tr>
<tr>
<td>Term Paper and ppt prs</td>
<td>100</td>
<td>25%</td>
</tr>
</tbody>
</table>
More details about grading:

1. Midterm Exam.
   This will be a short-essay type exam with 5-10 questions based on the material covered until the time of the exam, including the reading assignments and any other topic discussed in class.

2. Final Exam.
   A take-home exam will be administered towards the end of the semester, covering all of the material from lecture and discussion. It will consist of several essay questions, but it may also include some short answer questions and problem solving questions. Your responses will be due no later than the scheduled final exam period for this class (3-5 PM, December 12, 2014)

3. Class discussions. Grading of discussions and class participation will be weighted according to:
   a. Leading weekly paper discussion (25%)
   b. Contributions (oral and written) to weekly paper discussions (75%)

Individuals assigned to lead discussion on selected THURSDAYS will choose 1 paper related to the topic to be covered during the scheduled discussion and make a digital copy (PDF) available to me one week before the scheduled discussion. I will place a digital copy on the e-Campus website (http://ecampus.tamu.edu) one week before the discussion. Discussion leaders should be prepared to give a 10-15 minute overview of each paper, with some potential questions or talking points for discussion. Discussion may involve criticism of the research questions, methods, and conclusions, writing style or any other aspect of the paper. Be sure to read and review the papers before class. Each student will be required to provide a summary (1/2 to one full page) of the article discussed and will be due the day of the discussion.

4. Research Term Paper and oral presentation
   a. Presentation (25%)
   b. Term Paper (75%)

Students will be required to conduct an independent research project or literature review on a topic related with wetland ecology and pollution. This research paper will consist of a review of the recent literature and a write-up (8-10 typewritten pages, double spaced, including literature) similar to a review paper published in scientific journals. The term paper or research topic should be selected during the first 2 weeks in the semester and will be due at the same time than your oral presentation. Oral presentations will be scheduled for the last 2 weeks in the semester.

Americans with Disabilities Act (ADA) Policy Statement
The Americans with Disabilities Act (ADA) is a federal antidiscrimination 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 or call 845-1637.
Aggie Honor Code Statement
"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 Texas A&M University community from the requirements or the
processes of the Honor System. For additional information please
visit: www.tamu.edu/aggiehonor/
On all course work, assignments, and examinations at Texas A&M University, the following
Honor Pledge shall be preprinted and signed by the student:
"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic
work."

Class Attendance
Students are expected to attend to class all the time; late homework assignments will not be
accepted, and “make-up” exams and lab exercises will not be given, unless students present
written proof of a University excused absence. For information concerning excused absences,
and other university rules and procedures, please refer to TAMU Student Rules: http://student-
rules.tamu.edu.
# Tentative Topic Outline

**WFSC 628: Wetland Ecology and Pollution, Fall 2014**

## COURSE OUTLINE

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignment (W=wetlands book, 4th Edition; E=ecotoxicology book)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept 2</td>
<td>Syllabus, course overview, Introduction to wetlands</td>
<td>W Ch 1-3</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Establish dates for presentations, article discussions Continue Introduction to wetlands</td>
<td>W Ch 1-3</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>Wetland hydrology</td>
<td>W Ch 4</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>1) Article discussion (overview)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>Wetland Biogeochemistry</td>
<td>Sept 16: Selection of term paper topic: provide ½ page summary W Ch 5</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>2) Article discussion (Hydrology)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>Wetland Biogeochemistry</td>
<td>W Ch 5</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>3) Article discussion (biogeochemistry)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>30</td>
<td>Biological Adaptations, Wetland values</td>
<td>W Ch 6 and 11</td>
</tr>
<tr>
<td>Oct 2</td>
<td></td>
<td>4) Article discussion (Adaptations)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>Tidal and non-tidal wetlands</td>
<td>W 3rd edition, PDFs on E-campus, Ch 10,11,12,13</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>5) Article discussion (wetlands as sinks)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>14</td>
<td>Term paper 1st draft due (2-3 pages)</td>
<td>Draft due by class time</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>MIDTERM EXAM</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>21</td>
<td>Wetlands and climate change</td>
<td>W Ch 10</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>6) Article discussion (wetlands and climate change)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>28</td>
<td>Overview of contaminants in wetlands</td>
<td>E Ch 2; PDF on E-Campus: Source and toxicity of pollutants</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>7) Article discussion (bioaccumulation and biomagnification)</td>
<td>Subject to change</td>
</tr>
<tr>
<td>10</td>
<td>Nov 4</td>
<td>Bioaccumulation and Biomagnification (food webs, and wildlife)</td>
<td>E Ch 3, 5; PDF on E-Campus: Ch 34 Ecotoxicology_Newman</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>8) Article discussion (endocrine disruptors)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>Biomarkers (Online lecture)</td>
<td>E Ch 6; PDF on E-Campus: Biomarkers review_Handy 2003</td>
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<tr>
<td></td>
<td>13</td>
<td>Endocrine disruptors (online lecture)</td>
<td>Ch 39 Ecotox_Handbook</td>
</tr>
<tr>
<td>12</td>
<td>18</td>
<td>Ecological risk assessment</td>
<td>Ch 36 Ecotox_Handbook</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>9) Article discussion (ecological risk assessment of wetlands)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>25</td>
<td>Ecotoxicology of Mercury and Lead</td>
<td></td>
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<tr>
<td></td>
<td>27</td>
<td>Thanksgiving</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Dec 2</td>
<td>Student Presentations (20 min ea)</td>
<td>Term papers Final version due</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Student presentations</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>9</td>
<td>Environmental sampling and analysis</td>
<td>Last day of classes</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>- Dec 12, FINAL EXAM (Take Home)</td>
<td>Due 5 PM</td>
</tr>
</tbody>
</table>
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
• Submit original form and attachments •

Form Instructions
1. Course request type: □ Undergraduate □ Graduate □ First Professional (DDS, MD, JD, Pha D, DVM)
2. Request submitted by (Department or Program Name): Water Management and Hydrological Sciences Program
3. Course prefix, number and complete title of course: WMHS 601 Applications and Problems in Hydrological Sciences

4. Change requested
   a. Prerequisite(s): From: ___________________________ To: ___________________________
   b. Withdrawal (reason): ___________________________
   c. Cross-list with: GEOG 634 Hydrology and Environment

   Cross-listed courses require the signature of both department heads.

   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.

5. Is this an existing core curriculum course? □ Yes □ No
6. If grade type is changing for existing course, indicate the new grade type: □ Grade □ S/U □ P/F (CLASD)
7. If this course will be stacked, please indicate the course number of the stacked course: ___________________________

   ✔ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-control-basics-for-distance-education).
8. Complete current course title and current catalog course description:
   Water Management and Hydrological Science (WMHS 601). Applications and Problems in Hydrological Sciences. Credit 3. Integration and application of biophysical hydrologic processes affecting surface and groundwater resources; problem/resolution format; applications of experience through problem identification, data collection, analysis and identification of solutions and alternatives. Prerequisite: Approval of instructor

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   Water Management and Hydrological Science (WMHS 601). Examination of hydrologic processes affecting surface and groundwater resources; impact of climate, soils, vegetation, land-use practices, and human effects on hydrologic processes; natural-scientific perspectives emphasized; Prerequisite: Graduate Classification. Cross-listed with GEOG 634.

10. b. As currently in course inventory:

    Prefix | Course # | Title (excluding punctuation) | Lec. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | FICE Code | Level |
    WMHS   | 601      | Appl in Hydro Science         | 3.00 | 1.00| 3.00  | 400605 02  | 1320       | 0 0 3 6 3 2 | 6     |

    Approval recommended by: Randal Kaiser 10/30/14

    Department Head or Program Chair (Type Name & Sign) Date

    Chair, College Review Committee Date

    Dean of College 11/1/14

    (cross-listed course)

    Submitted to Coordinating Board by: Chair, GC or UCC 08/14

    Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 08/14
Hydrology and Environment (WMHS 601)
Fall 2015

Instructor: Dr. Steven M. Quiring
Office: O&M 814A
Office Hours: M 11:00 – noon, W 10:30 – 11:30 a.m. and by appointment
Phone: 458-1712
Email: squiring@tamu.edu

Class Meeting Time and Place: MWF 9:10 – 10:00 a.m., 303 CSA

Online Course Information: http://ecampus.tamu.edu/

Prerequisite: Graduate classification

Course Objective:
To provide you with an understanding of all components of the hydrologic cycle and how these components vary spatially and temporally due to the influence of human activities and the environment.

Course Description:
Water is fundamental for life on earth. This course will focus on water in the atmosphere, water on the earth’s surface and water in the root zone of the soil. We will investigate all of the hydrologic processes affecting surface and groundwater resources, including precipitation, evapotranspiration, infiltration & storage, and runoff. This includes investigation of the impact of climate, soils, vegetation, land-use practices and human activities on hydrologic processes. Specifically we will investigate the:

1) processes controlling each component of the hydrologic cycle
2) spatial and temporal distribution of each component of the hydrologic cycle in the atmosphere and over the earth’s surface (i.e., how and why it varies)
3) measurement and modeling of each component of the hydrologic cycle (i.e., how is it measured, how accurate are the measurements and models, what are the known biases in measuring and modeling this component)
4) issues related to how humans manage each component and how it is influenced by human activities.

The readings and lectures will cover the fundamental principles that are necessary for understanding hydroclimatology. The term paper will require you to quantitatively analyze real-world hydrologic problems and it will help you develop research skills (data analysis, problem solving, etc.).
Learning Objectives:
As a result of taking this course you should know certain things (knowledge objectives) and be able to do certain things (skill objectives).

Knowledge objectives (Things you should know by the end of the course):

- Describe the processes that are responsible for each component of the hydrologic cycle.
- Describe the spatial distribution of each of the components and why they are distributed in this manner (i.e., how and why). You should also be able to describe the temporal trends in each component (e.g., is the world getting wetter or drier?).
- Describe how each component of the hydrologic cycle is measured and modeled and the biases (errors) in each of the measuring and modeling techniques.
- Discuss the major water resource issues and critique the proposed solutions to these issues.
- Critique published research on hydrology and hydroclimatology and be able to describe the strengths and weaknesses of the data and methodology utilized by the authors.

Skill objectives (Things you should be able to do by the end of the course):

- Interpolate precipitation data.
- Analyze trends in precipitation data.
- Calculate the recurrence interval for precipitation events of a given magnitude.
- Model evapotranspiration.
- Calculate infiltration and runoff.
- Estimate peak discharge.
- Model the climatic water balance.
- Perform library research.
- Write a literature review (synthesis of the literature).
- Evaluate the published research and the research of your peers.
- Write a scientific research paper that conforms to the accepted standard for publication in a peer-reviewed journal.
- Deliver a clear and concise oral presentation on the research that you completed during the semester.

Required Textbook:


Weekly readings will be assigned throughout the semester and will be made available through ecampus.tamu.edu. The textbook will cover the basic material for each unit and
the other assigned readings (which will be drawn from the scientific literature) will provide more depth on certain topics.

**Course Outline:**
We will begin by examining the fundamentals and importance of hydrology. We will then examine each component of the hydrological cycle in detail. Finally, we will examine some contemporary issues in hydrology.

1) **Introduction to Hydrology (Week 1)**
   - The Hydrosphere
   - Why is water important?
   - Functions and properties of water
   - Basic concepts in hydrology:
     - Hydrological cycle
     - Watershed

2) **Precipitation (Week 2, 3 and 4)**
   - Mechanisms
     - What cause precipitation to occur?
     - Types (convective, frontal, cyclonic, orographic)
   - Spatial and Temporal Variability
   - Measurement
     - In situ (gage measurement and biases)
     - Remote sensing (weather radar and satellite)
   - Modeling and Interpolation
     - Areal averaging
     - Interpolation
   - Issues
     - Cloud seeding
     - Climate change

3) **Evapotranspiration (ET) (Week 5 and 6)**
   - Processes
     - What is evaporation (E)?
     - What is transpiration (T)?
     - What controls the rate of E&T?
     - What is Potential ET? What is Actual ET?
   - Spatial and Temporal Variability
   - Measuring ET
   - Modeling ET
   - Issues
     - Controlling ET

4) **Infiltration and Storage (soil moisture & ground water) (Week 7, 8 and 9)**
   - Processes
     - What controls infiltration and storage?
- Impact of soil characteristics
- Soil water movement
- Soil water loss
- Ground water recharge and flow
- Ground water-surface water relations

• Spatial and Temporal Variability
• Measuring and Modeling Infiltration and Storage
• Issues
  - Impervious surfaces
  - Irrigation
  - Moisture recycling
  - Effects of ground water extraction
  - Aquifer storage and recovery

5) Runoff and Streamflow (Week 10, 11 and 12)
• Processes
  - Overland runoff
  - Base flow and event flow
  - Streamflow dynamics and networks
  - Hydrographs
• Spatial and Temporal Variability
• Measuring and Modeling Streamflow
  - Stream gages (discharge, stage)
  - Flow routing
  - Hydrologic modeling
• Issues
  - Flood control structures
  - Irrigation
  - Land use/land cover change
  - Water quality
  - Climate change

7) Graduate Research Presentations (December 1, 3 & 5)

8) Last Class & Review for Final Exam (Monday, December 8)

FIRST EXAM (Monday, October 13)
RESEARCH PAPER (Wednesday, November 26)
FINAL EXAM (Monday, December 15, 8-10 am)

Grading:
First Exam (Oct. 13) 25%
Research Paper (Nov. 26) 35%
Research Presentation (Dec. 1, 3 or 5) 10%
Final Exam (Dec. 15) 30%
*No late papers or exercises will be accepted. Students who do not hand in an assignment by the due date will receive a grade of zero.

The grading system follows the Texas A&M University grading system:
A = Excellent
B = Good
C = Satisfactory
D = Passing
F = Failing

Grades will be assigned based on the following cutoffs: A = >90%, B = 80-89%, C = 70-79%, D = 60-69%, F = <60%.

**Exams (first exam = 25%; final exam = 30%):**
The two exams will be based on the material covered in the lectures and the readings and in-class exercises. The final exam will be cumulative. They will involve short answer, application and problem solving (based on the exercises), and paragraph/essay questions. Students seeking an excused absence on a test day must notify the professor or the Department of Geography by the end of the next working day following the absence, as described in Texas A&M University Student Rules. For an absence considered excused by the university (see Student Rules), the student will be required to make-up the missed exam. At the instructor's discretion, the make-up exam might be in a different format (e.g., essay) than the original exam. Please see the instructor in advance if you know you will not be able to take a test on the scheduled date.

**Research Paper (35%):**
The research paper will provide you with an opportunity to do an in-depth study on a hydrological topic that interests you. I am expecting you to review the relevant literature and analyze data. The paper should be approximately 20 pages and should follow the style of Water Resources Research. You will be required to write a research paper and deliver a presentation to the class. This assignment will be discussed in more detail in class. You are welcome to select any topic that relates to the hydrological cycle (e.g., precipitation, evapotranspiration, soil moisture, runoff or streamflow). I have listed examples of a number of topics that would be appropriate:
- How accurately is precipitation measured by... satellites, radar, gages?
- How will (how is) climate change affecting hydroclimatology: Is precipitation increasing or decreasing (are floods or droughts becoming more frequent)? Will there be more extreme events? What will happen to evaporation? Describe one of the following hydrological applications: flood forecasting, reservoir management, flashing flooding risk, hydrological modeling
- What impact is land use/land cover change having on hydrology?
- What causes drought to occur?

**Project Presentation (10%):**
All students will be required to present their research in class Dec. 1, Dec. 3 or Dec. 5. You will be given 15 minutes to present your research and there will be a few minutes for questions following your presentation. Time limits will be strictly enforced (just as they
would be if you were presenting at a national meeting). I will go over the grading rubric in class. You are encouraged to use powerpoint or other visual media to enhance your presentation.

**Cellular Telephones**
As a courtesy to the instructor and other students please turn off all cellular telephones and two-way pagers before the class begins. I find it extremely impolite to be interrupted by a cellular telephone when I am lecturing.

**Email**
All Texas A&M students should use their neo email accounts when emailing the instructor and teaching assistants. I may also send out class announcements via the neo email system as well. It is your responsibility to check your neo email account regularly.

**Scholastic Dishonesty**
It is my hope that academic dishonesty will not be a problem in this class. Texas A&M does, however, have a Scholastic Dishonesty policy to which both students and faculty must comply. If you have any questions about the University's Scholastic Dishonesty policy please review the Student Rules or see me. The Aggie Honor program is the new program that will handle all cases of academic dishonesty. The Aggie Honor program website is located at [http://aggiehonor.tamu.edu/](http://aggiehonor.tamu.edu/)

The materials used in this course 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 plagiarism, please consult the latest issue of the Texas A&M University Student Rules, [http://student-rules.tamu.edu](http://student-rules.tamu.edu), under the section “Scholastic Dishonesty.”

Aggie Code of Honor: “An Aggie does not lie, cheat or steal, or tolerate those who do”
[http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)

**Student Support**
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 more information please contact:
Services for Students with Disabilities
Room B118 of Cain Hall, 845-1637, [http://studentlife.tamu.edu/ssd](http://studentlife.tamu.edu/ssd)

There are numerous other student support organizations on campus including:
Center for Academic Excellence and Academic Assistance Clearinghouse
525 Blocker, 845-2724, [http://www.tamu.edu/cae](http://www.tamu.edu/cae)

Student Counseling Service
Henderson Hall, 845-4427, [http://www.scs.tamu.edu](http://www.scs.tamu.edu)
Special Consideration Items
MEMORANDUM

DATE: November 18, 2014

TO: CEHD Graduate Instruction Committee

THROUGH: George Cunningham
Associate Dean

FROM: Fredrick M. Nafukho
Professor & Department Head

SUBJECT: Masters of Education in Educational Administration

The Masters of Education (MEd) in Educational Administration requests the approval for the following changes:

A. Allow students filing the official Office of Graduate and Professional Studies degree plan to select a chair only rather than a three person committee.

B. Allow students to be exempt from the final exam but instead complete a common core course, EDAD 606, Instructional Development Training. Students submit a portfolio with reflections and artifacts of their work they have completed throughout the program. This is completed in this course as a culminating activity.

The Masters of Education in Educational Administration is offered as an online non-thesis degree. This program has grown significantly and we anticipate on admitting approximately 40 students each year. With this increase in students, these changes are necessary to ensure that students are able to move through the program in a timely manner.

Thank you for your consideration in this request.
MEMORANDUM

TO: Dr. Karen L. Butler-Purry, Associate Provost for Graduate and Professional Studies

THROUGH: Dr. Ricky Griffin, Interim Dean Mays Business School

- THROUGH: Dr. Mary Lea McAnally, Associate Dean for Graduate Programs Mays Business School

FROM: Dr. Michael Wesson, Director, MS-HRM Saudi Arabia Program

SUBJECT: MS-HRM Saudi Arabia Program-English Language Proficiency Waiver

The MS-Human Resource Management Saudi Arabia Program in the Management Department of the Mays Business School requests that our students be permanently waived from the English Language Proficiency Requirements.

All students within the program are employees of Saudi Aramco, Saudi Arabia’s state-owned petroleum and natural gas company based in Dharian, Saudi Arabia. The program’s classes are all taught in Saudi Arabia at Saudi Aramco facilities. Students are employed full-time with Saudi Aramco.

Saudi Aramco, as a company, conducts business solely in English – both verbally and in writing. Applicants to Saudi Aramco are required to prove and demonstrate English proficiency in order to be considered for employment. In addition, over 90% of our students completed their undergraduate degrees at an English-speaking University.

Requiring these students to complete English proficiency tests seems unnecessary and burdensome given the qualifications they already possess.

Thank you for your consideration for this request. If you have any further questions, contact Michael Wesson at 845-5577, 777-6992, or wesson@tamu.edu.
October 20, 2014

MEMORANDUM

TO: Dr. Karen L. Butler-Purry, Associate Provost for Graduate and Professional Studies

THROUGH: Dr. Ricky Griffin, Interim Dean
Mays Business School

THROUGH: Dr. Mary Lea McAnally, Associate Dean for Graduate Programs
Mays Business School

THROUGH: MBA Graduate Instruction Committee-Mays Business School
Dr. Mary Lea McAnally
Dr. Christa Bouwman
Dr. Michael Kinney
Dr. Rogelio Oliva
Dr. Suresh Ramanathan
Dr. Michael Wesson

FROM: Julie Orzabal, Director, Executive MBA Program
Michael Alexander, Director, Professional MBA Program

SUBJECT: Executive MBA and Professional MBA Program-English Language Proficiency Waiver

The Executive MBA (EMBA) and Professional MBA (PMBA) Programs of Mays Business School request that our respective students be permanently waived from the English Language Proficiency Requirements.

EMBA and PMBA Programs are located at our CityCentre, Houston location. Students are employed full-time and enter Texas A&M with a work visa.

The EMBA and PMBA Programs are housed in Mays Business School with a dedicated Admissions Unit. All admitted students of the EMBA and PMBA Programs complete an application for admission that includes required written essays and an in-person interview. The EMBA and PMBA are also exempt from the TOEFL tests while PMBA students are required to complete the GMAT.

Thank you for your consideration of this request. If you have any further questions, contact Julie Orzabal at 458-1832 or j-orzabal@tamu.edu.
MEMORANDUM

TO: Karen Butler-Purry  
   Associate Provost for Graduate and Professional Studies

FROM: John C. Criscione  
      Assistant Dean for Graduate Programs

SUBJECT: Exception request for MS non-thesis degree option in the Dwight Look College of Engineering

A number of departments in the Dwight Look College of Engineering (DLCOE) have had a Master of Science non-thesis degree option since the time when they established their respective Master of Science programs. A couple of other departments, which do not have the non-thesis option previously, are now planning to add the non-thesis degree option to their Master of Science programs. The non-thesis degree option requires a minimum 36 credit hours. As a non-thesis option, 691 (Research) is disallowed. Typically, a maximum of three hours of 692 (Professional Study) or 685 (Directed Study) is allowed.

As 691 is not allowed, the MS non-thesis option has been a coursework-only degree option with no research component. Some students may choose to do projects under 692, but the vast majority of students simply choose to complete 36 hours of regular coursework. Given the lack of research, the final exam has become a standard test administered by a subset of faculty with content that has been tested already in courses.

We have decided that the value of having a final exam to re-examine course content is not commensurate with the faculty effort—effort that is thought to be applied better to evaluation of MS and PhD thesis research and doctoral qualifying exams. The DLCOE therefore seeks approval to allow an exemption to the final exam requirement for M.S. non-thesis option students in all DLCOE departments.

Coupled with this examination waiver is a proposed centralization of the student advisory committee. We seek approval to adopt a committee of less than three members for the non-thesis option MS students.

On the next page, we provide the proposed changes to the Graduate Catalog.

Please let me know if there is additional information that we might provide.
Proposed Graduate Catalog changes:

From the current catalog, page 62

Student’s Advisory Committee
After receiving admission to graduate studies and enrolling for coursework, the student will consult with the head of his or her major or administrative department (or intercollegiate faculty, if applicable) concerning appointment of the chair of his or her advisory committee. With the exception of the Mays Business School non-thesis option, the Dwight Look College of Engineering non-thesis option, and the Master of Science for a student with a major in Educational Human Resource Development, HRD option, the student’s advisory committee for the master’s degree will consist of no fewer than three members of the graduate faculty representative of the student’s fields of study and research. The chair or one of the co-chairs of the advisory committee must be from the student’s major department (or intercollegiate faculty, if applicable), and at least one or more of the members must have an appointment to a department other than the student’s major department. The outside member for students in an intercollegiate program must have an appointment to a department different from the chair of the student’s committee.

From the current catalog, page 66

For non-thesis option students, a final comprehensive examination is required. The Master of Science in Educational Human Resource Development, HRD option, the Dwight Look College of Engineering Master of Science non-thesis option, and the Master of Science Program in the Mays Business School do not have final examination requirements. Otherwise, exemptions from final examinations are not allowed. The final exam cannot be held prior to the mid point of the semester if questions on the exam are based on courses in which the student is currently enrolled. If a student has completed all required degree plan coursework, the student is not required to be registered for classes in the semester the final examination is administered (unless he/she holds an assistanship).

From the current catalog, page 67

Non-Thesis Option
For the non-thesis option, a thesis is not required. A final comprehensive examination is required for all non-thesis Master of Science programs except the Master of Science programs offered by the Mays Business School, the Dwight Look College of Engineering non-thesis option, and the Master of Science with a major in Educational Human Resource Development, HRD option. No exemptions are allowed. The requirements as to level of courses and examinations are the same as for the thesis option Master of Science degree. The final examination cannot be held prior to the mid point of the semester if questions on the examination are based on courses in which the student is currently enrolled.
Informational Items
Texas A&M University
Departmental Request for a Change in Course
Undergraduate + Graduate + Professional
Submit original form and attachments.

Form Instructions
1. Course request type:  
   - Undergraduate  
   - Graduate  
   - First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): School of Law
3. Course prefix, number and complete title of course: LAW-7104 Administrative Law

4. Change requested
   a. Prerequisite(s): From: ___________________________  
      To: ___________________________
   b. Withdrawal (reason):
   c. Cross-list with: ___________________________

   Cross-listed courses require the signature of both department heads.

   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.

   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.

5. Is this an existing core curriculum course?  
   - Yes  
   - No
6. If grade type is changing for existing course, indicate the new grade type:  
   - Grade  
   - S/U  
   - P/F (Course)
7. If this course will be stacked, please indicate the course number of the stacked course:

   - I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-control-basics-for-distance-education).
8. Complete current course title and current catalog course description:
   Administrative Law. (G-O). Credit 3.

10. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   Administrative Law. Credit 2 to 3.

11. a. As currently in course inventory:

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<th>Prefix</th>
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<th>Title (excluding punctuation)</th>
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<td>Admin Law</td>
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   b. Change to:

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</tr>
</tbody>
</table>

   Approval recommended by:
   - Maxim M. Harrington
   - Neil Newman
   - Andrew P. Moriss

   Department Head or Program Chair (Type Name & Sign)  
   Date

   Chair, College Review Committee  
   Date

   Dean of College  
   Date

   Department Head or Program Chair (Type Name & Sign)  
   (If cross-listed course)

   Submitted to Coordinating Board by:
   Chair, GC or UCC  
   Date

   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 08/14
Administrative Law Course 7113-601
Spring 20xx

Professor:
Huyen Pham
Room 122
Office phone: 817-212-3953
E-mail: hpham@law.tamu.edu
Office hours: M: 12-2:30 PM
Tuesday: 10 AM-12 PM and by appointment

Course Description: A study of the legal principles and procedures to which an unelected bureaucracy must conform to achieve legitimacy. The course reviews the problems inherent in a relatively disunited body of law derived from disparate sources, but concentrates on the Constitution and other federal law as the primary sources of organizing principles for administrative law and procedure. Topics addressed may include the constitutional underpinnings of the federal bureaucracy, judicial review of agency fact finding and legal interpretation, extra-statutory administrative common law, the grounds for dividing administrative actions into adjudication and rule making, the essential components of due process in agency adjudication, and the availability of judicial review of agency action. Prerequisite: One year of law school in the full-time or part-time program.

Course Goals:
Administrative law is a fascinating and complex area of law. Because so many important decisions are made by agencies, it is essential to know what agencies are and how they operate. In this course, we consider the sources of agency authority, the statutory and constitutional constraints on that authority, and the role of the judiciary in reviewing agency decisions. We focus on federal administrative law but discuss principles applicable to state administrative agencies as well.

Required Text:

Course Web Site:
This course will make use of TWEN through Westlaw. The syllabus, reading assignments, and other class materials will be posted to the site. Also, I will occasionally send e-mail messages to the e-mail account that you designate when you register with TWEN. It is your responsibility to check this account regularly (i.e., daily) and to make sure that the account remains functional.

Technology Use:
After consideration and consultation, I am banning the use of laptops in class. Additionally, you are not permitted to use any other device in class to access the Internet or any other network for web browsing, communication, or any other purpose without prior authorization from me.
Course Grade:
Your grade will be based on a final examination, as modified by your attendance and participation (see below). The final exam will be a limited open book exam for which you may consult your notes (including powerpoint slides used during lectures) and the textbook.

Attendance and Participation:
Active and engaged participation is expected. Participation includes daily attendance and involvement in classroom discussion. At my discretion, your examination grade may be adjusted to reflect the quality of your contributions to the class.

You are required to attend all classes. The Law School has a mandatory attendance policy. Pursuant to that policy, any student who misses more than 25% of classes will be withdrawn from the class. Tardy arrivals or early departures may be considered absences.

Occasionally, I may need to schedule a make-up class during one of the official make-up times. I will announce the make-up class at least one week in advance. Attendance will be taken at make-up classes.

Aggie Code of Honor:

“An Aggie does not lie, cheat or steal, or tolerate those who do.” For more information, please read the Law School’s Honor Council Rules and Procedures: http://law.tamu.edu/Portals/0/docs/cnoriega/TAMU%20Law%20School%20Honor%20System%20283%29.pdf

Law School Disability Policy:

Texas A&M School of Law adheres to a disability policy that is in keeping with relevant federal law. The law school will provide reasonable accommodations as determined by the Assistant Dean of Student Affairs, Rosalind Jeffers, in consultation with the University’s disability services. Students must notify Dean Jeffers of any permanent or temporary disabilities and must provide documentation regarding those disabilities prior to the granting of an accommodation. Due to the law school’s policy of testing anonymity, students should not discuss their disabilities with professors. For assistance, students should consult with Dean Jeffers.
Syllabus:

Week 1: Introduction to Constitutional Issues

Jan. 13 (lecture 1): Introduction
   Agencies: Their Origins, Forms, and Functions
   pp. 1-34
   Be prepared to discuss a recent instance when a government agency (federal or state) has made the news. Also, be prepared to discuss how a government agency has recently affected your life.

Jan. 15 (lecture 2): Introduction (cont’d)

Week 2: The Constitution and the Administrative State

Jan. 22 (lecture 3): Theories of Agency Behavior
   pp. 34-40
   The Constitution and the Administrative State (begin)
   Concepts of Separated Powers
   pp. 41-48

Week 3: The Constitution and the Administrative State

Jan. 27 (lecture 4): Concepts of Separated Powers
   pp. 48-59
   Agencies and Article I
   pp. 59-61, 69-85, 107-114

Jan. 29 (lecture 5): Agencies and Article I (cont’d)
   pp. 114-115 (stop at INS v. Chadra), 124 (bottom)-131
   Agencies and Article II
   pp. 140-152, 159-178

Week 4: The Constitution and the Administrative State (cont’d) & Statutory Constraints on Agency Procedure

Feb. 3 (lecture 6): The Constitution and the Administrative State
   Agencies and Article II
   pp. 178-215 (removal)
Feb. 5 (lecture 7): Finish removal

Agencies and the Separation of Powers
pp. 243-255

Week 5: Statutory Constraints on Agency Procedure

Feb. 10 (lecture 8): Introduction: The APA
pp. 256-263

Feb. 12 (lecture 9): Formal Rulemaking
pp. 263-288

Week 6: Statutory Constraints on Agency Procedure

Feb. 17 (lecture 10): Formal Adjudication
pp. 288-306

Feb. 19 (lecture 11): Informal Rulemaking
pp. 306-332

Week 7: Statutory Constraints on Agency Procedure

Feb. 24 (lecture 12): Informal Rulemaking
pp. 332-365

Feb. 26 (lecture 13): Informal Rulemaking
pp. 365-390, 403-405

Week 8: Statutory Constraints on Agency Procedure

March 3 (lecture 14): Informal Adjudication
pp. 413-426

March 5 (lecture 15): Choice between Rulemaking and Adjudication
pp. 426-456

Week 9: Scope of Review of Agency Action

March 17 (lecture 16): Choice between Rulemaking and Adjudication (finish)
Scope of Review of Agency Action: Introduction
pp. 457-464
Review of Findings of Fact in Formal Proceedings
pp. 464-475
March 19 (lecture 17): Review of Findings of Fact in Informal Proceedings
pp. 492-501

Week 10: Scope of Review of Agency Action

March 24 (lecture 18): Review of Agency Legal Conclusions
pp. 527-541, 551-569

March 26 (lecture 19): Review of Agency Legal Conclusions
pp. 569-592
Week 11: Judicial Review of Agency Legal Conclusions

March 31 (lecture 20): Review of Agency Legal Conclusions
  pp. 592-610, 628-640

April 2 (lecture 21): Review of Agency Legal Conclusions
  pp. 665-685
  Review of Agency Discretion and Policymaking
  pp. 697-706

Week 12: Judicial Review of Agency Policymaking and Due Process Constraints

April 7 (lecture 22): Applying the Hard Look Doctrine
  pp. 706-727
  The Convergence of Substantive Review and Procedural Adequacy
  pp. 752-763

April 9 (lecture 23): Constitutional Constraints on Agency Procedure
  Overview
  pp. 802-806
  “Life, Liberty, or Property”
  pp. 833-842, 846-854, 859-871

Week 13: Due Process Constraints on Agencies

April 14 (lecture 24): Review “Life, Liberty, or Property” reading
  “Due Process of Law”
  pp. 895-923

April 16 (lecture 25): Overview & Standing
  pp. 936-942, 945-954 (background)
  pp. 989-991, 1016-1029

Week 14: Timing & Availability of Judicial Review

April 21 (lecture 26): Standing (cont’d)
  pp. 1030-1042
  Exhaustion
  pp. 1053-1069

April 23 (lecture 27): Finality and Ripeness
  pp. 1069-1098
Week 15: Review

April 28 (lecture 28): Review
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
• Submit original form and attachments

Form Instructions
1. Course request type:
   □ Undergraduate □ Graduate □ First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   School of Law

3. Course prefix, number and complete title of course:
   LAW-7351 International Intellectual Property

4. Change requested
   a. Prerequisite(s): From:
   b. Withdrawal (reason):
   c. Cross-list with:
   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.

5. Is this an existing core curriculum course?
   □ Yes □ No

6. If grade type is changing for existing course, indicate the new grade type:
   □ Grade □ S/U □ P/F (CLASG)

7. If this course will be stacked, please indicate the course number of the stacked course:
   I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vcr.tamu.edu/resources/export-
   controls/export-controls-basics-for-distance-education)

8. Complete current course title and current catalog course description:

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   International Intellectual Property. Credit 2 to 3.

10. Appendix.

11. a. As currently in course inventory:
    Prefix Course # Title (excluding punctuation)
    LAW 7104 Intern 1ntel Prop

    | Lect | Lab | Other | SCH | GP and Fund Code | Admin. Unit | HIC Code | Level |
    |------|-----|-------|-----|------------------|-------------|----------|-------|
    | 2.00 |     |       |     | 2201010008       | 1710        | 0 0 3 6 3 2 | 7     |

    b. Change to:
    Prefix Course # Title (excluding punctuation)
    LAW 7104 Intern 1ntel Prop

    | Lect | Lab | Other | SCH | GP and Fund Code | Admin. Unit | Acad. Year | HIC Code | Level |
    |------|-----|-------|-----|------------------|-------------|------------|----------|-------|
    | 3.00 |     |       |     | 2201010008       | 1710        | 0 0 3 6 3 2 | 7     |

   Approval recommended by:
   Maxine M. Harrington
   Department Head or Program Chair (Type Name & Sign) Date
   Neil Newman
   Chair, College Review Committee Date
   Andrew P. Morris
   Dean of College Date

   Submitted to Coordinating Board by:
   Chair, GC or UCC Date

   Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services — 06/14
International Intellectual Property
Course Information and Syllabus
Spring 20xx

Prof. H. Brian Holland

Office: Room 125
Office Phone: (817) 212-3923
Email: hbholland@law.tamu.edu

COURSE DESCRIPTION

This course provides a basic foundation for thinking about intellectual property problems that arise in an international context. The course will focus primarily on the major treaties and other international agreements providing protection for patents, trademarks, copyrights, and other forms of intellectual property, with a focus on World Trade Organization (WTO) TRIPS Agreements, US free trade agreements, and World Intellectual Property Organization (WIPO) treaties. Prerequisities: (1) One year of law school in the full-time or part-time program; (2) Intellectual Property, Copyrights, Patent Law, Trademark and Unfair Competition Law, or similar course with permission of the instructor.

COURSE MATERIALS

- Additional required materials will be posted to the course website.

COURSE REQUIREMENTS

Course Website: We have a course web site on LexisNexis Web Course, available at www.lexisnexis.com/lawschool. You are required to register for the site and check it regularly. During the course of the semester, I will post course materials on our LexisNexis Web Course site, so it is important that you register as soon as possible. Periodically, I will send emails to the class through LexisNexis Web Course. Therefore when you register, use an email address that you will check frequently. I encourage students to use our LexisNexis Web Course site to complement our readings and in-class discussions. Feel free to post links to news stories or articles in your own comments or discussions relevant to the material we are covering this session. If you have questions about LexisNexis Web Course, you should contact the law school’s LexisNexis representative.

Class Preparation: Class preparation is required. If you do not regularly prepare for class meetings, you will have difficulty mastering the material. Adequate preparation includes, but is not limited to, a careful briefing and analysis of the cases, statutes, problems and other assigned materials.

Attendance: The law school attendance policy will be enforced. ABA Standards require regular class attendance. A student who exceeds the maximum number of absences will be administratively withdrawn from the course. You are deemed absent if you are not in the classroom when class is scheduled to begin or if you leave the classroom before class is dismissed. Failure to be adequately prepared may also result in a designated absence. You are responsible for signing the attendance roster during class and for keeping track of your absences. Please refer to the law school’s Academic Standards for pertinent information regarding the law school’s attendance policy.

Participation: Participation in class dialogues and discussion is required. Special attention will be given to the casebook problems presented in that week’s reading. You should expect to be called on at random during class. Your final grade may be adjusted to reflect the quality of your participation and your preparation. Failure to be prepared when called upon or disruptive classroom behavior may result in a penalty such as dismissal of the student from the class meeting and/or a deduction of one grade increment from the student’s final grade for each such occurrence.
Grading

Your grade in this course will be based on a final exam. Your grade may be adjusted up or down, at the sole discretion of the professor, based on the quality of your class preparation and participation.

Use of Electronic Devices

As a courtesy to your classmates and me, please make sure your cell phone, pager or similar electronic device is turned off at the beginning of class. If you are expecting an emergency call, please use the vibrate or text message feature on your cell phone and leave class before answering any call. In addition, please be certain that your computer is silent. During class meetings, your use of any electronic devices must be solely for purposes directly related to the class. Your use of electronic devices for any other purpose is prohibited. Examples of prohibited uses of electronic devices include surfing the internet, updating your Facebook page, playing games of any kind, and reading or sending electronic messages.

Law School Disability Policy

Texas A&M University School of Law adheres to a disability policy that is in keeping with relevant federal law. The law school will provide appropriate accommodation as determined by the Assistant Dean of Student Affairs, Rosalind Jeffers. Students must notify Dean Jeffers of any permanent or temporary disabilities and must provide documentation regarding those disabilities prior to the granting of an accommodation. Due to the law school’s policy of testing anonymity, students should not discuss their disabilities with professors. For assistance, students should consult with Dean Jeffers.

Law School Honor System

All students are bound by the Law School Honor System. Details are available here.

ASSIGNMENTS

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Texas A&M University  
Departmental Request for a Change in Course  
Undergraduate • Graduate • Professional  
* Submit original form and attachments *

**Form Instructions**

1. Course request type:  
   - [ ] Undergraduate  
   - [ ] Graduate  
   - [x] First Professional (DDS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):  
   School of Law

3. Course prefix, number and complete title of course:  
   LAW-7452 Patent Law

4. Change requested  
   a. Prerequisite(s):  
      From:  
      To:  
   b. Withdrawal (reason):  
   c. Cross-list with:  

   Cross-listed courses require the signature of both department heads.

   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.

   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b.  
      Attach a course syllabus.

5. Is this an existing core curriculum course?  
   [ ] Yes  
   [x] No

6. If grade type is changing for existing course, indicate the new grade type:  
   [ ] Grade  
   [ ] S/U  
   [ ] P/F (CLMD)

7. If this course will be stacked, please indicate the course number of the stacked course:  

   I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://poc.tamu.edu/resources/export-controls/export-control-basics-for-distance-education).

8. Complete current course title and current catalog course description:  

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):  
   Patent Law. Credit 2 to 3.

10. As currently in course inventory:

    | Course # | Title (excluding punctuation) |
    |----------|------------------------------|
    | LAW 7104 | Patent Law                   |

    | Sect. | Lab | Other | SCH | CRP and Blend Code | Admin. Unit | ECE Code | Level |
    |-------|-----|-------|-----|--------------------|-------------|----------|-------|
    | 2.00  | 2.00| 2201010008 | 1710| 0 0 3 6 3 2 | 7 |

b. Change to:

    | Course # | Title (excluding punctuation) |
    |----------|------------------------------|
    | LAW 7104 | Patent Law                   |

    | Sect. | Lab | Other | SCH | CRP and Blend Code | Admin. Unit | ECE Code | Level |
    |-------|-----|-------|-----|--------------------|-------------|----------|-------|
    | 3.00  | 3.00| 2201010008 | 1710| 15 16 | 0 0 3 6 3 2 | 7 |

Approval recommended by:  
Maxine M. Harrington

Department Head or Program Chair (Type Name & Sign):  
Neil Newman  
Chair, College Review Committee

Andrew P. Morell

Dean of College

Department Head or Program Chair (Type Name & Sign):  
F. 28/14

Submitted to Coordinating Board by:  
Chair, GC or UCC

Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
PATENT LAW
SYLLABUS
Texas A&M Law School
Spring 20xx

Course No. LAW-7452 Prerequisite: One year in law school in the full-time or part-time program.

Course Description: The study of how proprietary interests in technology are protected by patent law, with a focus on issues relating to validity, the nature of the subject matter protected, and enforcement of proprietary rights. Prerequisite: One year of law school in the full-time or part-time program.

Welcome to Patent Law! In this course, we will explore the fundamentals of Patent Law. The course will meet over four Saturdays for six hours each day. The meeting dates will be January 25, February 8, March 1, and April 12. The class will meet from 9 am to 4 pm with a one hour for lunch. If there are any questions, I can be reached at ghosh7@wisc.edu. I can arrange for meetings at the law school based on the schedule of individual students.

The grade will be based exclusively on a take-home exam that I will distribute on April 12 and will be due the last day of final exams. Readings will be taken from Ghosh et al., Intellectual Property (2nd Edition Thomson West 2011) [referred to as below as "Book"]; I will also hand out some additional cases as described below.

You are required to attend all class meetings. Attendance is required in accordance with the policy of the TAMU School of Law. Your signature on the attendance roster verifies that you were present during the entire class session. I reserve the right to mark you absent if you arrive significantly late for class or if you leave early from class.

The goal of this course is to teach you the basics of patent law doctrine in preparation for more advanced patent law offerings. No intellectual property course serves as a prerequisite for this course. The only requirements are that you have a basic understanding of how to read cases and statutes and how to engage in legal analysis. These legal skills are critical for your development as a professional, whether in the field of patent law or in other areas of concentration.

The Honor Code of the University applies to all activities in this course. An Aggie does not lie, cheat, or steal, or tolerate those who do. I will expect that you meet a standard of professionalism in addition to the Aggie Honor Code. What does it mean to be a professional? According to Professor Roscoe Pound, the term refers to a group . . . pursuing a learned art as a common calling in the spirit of public service – no less a public service because it may incidentally be a means of livelihood. Pursuit of the learned art in the spirit of public service is the primary purpose.

Texas A&M School of Law adheres to a disability policy that is in keeping with relevant federal law. The law school will provide reasonable accommodations as determined by the Assistant Dean of Student Affairs, Rosalind Jeffers, in consultation with the University's disability services. Students must notify Dean Jeffers of any permanent or temporary disabilities and must provide documentation regarding those disabilities prior to the granting of an accommodation. Due to the law school's policy of testing anonymity, students should not discuss their disabilities with professors. For assistance, students should consult with Dean Jeffers.
   Read Book, page 258-302.
   Read Mayo (handout), Myriad (handout), Ariosa(handout).

February 8: Novelty & Nonobviousness
   Read Book, pages 302 to 365.

March 1: Claims—Enablement and Patent Infringement
   Read Book, pages 365-442.

April 12: Infringement, Remedies and Special Topics
   Read Book, pages 442-503.
November 11 2014

MEMORANDUM

TO: Dr. Mark Zoran
   Graduate Council Chair

   Dr. Tim Scott
   Undergraduate Curriculum Committee Chair

THROUGH: Amb. Ryan Crocker
   Dean of The Bush School of Government and Public Service

THROUGH: Dr. Leonard Bright
   Assistant Dean of Graduate Education and Graduate Instruction Committee Chair
   The Bush School of Government and Public Service

FROM: Dr. William F. West
   Acting Department Head, Public Service and Administration Department
   The Bush School of Government and Public Service

SUBJECT: Statement of Support for Degree Evaluations Changes for ECON 3+2 Programs

This memorandum affirms that the Bush School of Government and Public Service supports the changes to the undergraduate degree evaluations for the B.A. ECON 3+2 and B.S. ECON 3+2 programs as listed on the attached forms. These changes do not affect the curriculum at the graduate level of the 3+2 programs.
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: ☑ Undergraduate ☐ Graduate ☐ First Professional (e.g., DVM, JD, MD, etc.)

2. Request change for: ☑ Degree Program ☐ Minor ☐ Certificate

3. Request submitted by (Department or Program Name): Economics

4. (e.g., B.A. in History, Minor in History, Certificate in European Union): BS ECON-LEC

5. Brief description of change:
Moving or expanding Rules related to College requirements within the current degree evaluation.

6. Rationale for change:
Currently, a significant amount of course adjustment requests are being submitted to move literature courses, which pick up in the KLPC rule (B/C), to the literature rule (D). Due to the communication area being prioritized higher in the degree evaluation, the literature will be picked up in this area first. Therefore, moving the literature requirement to the Communication area, rule C, will alleviate most of the KLPC/literature adjustment requests. The state core curriculum requirement for Social and Behavioral Science is 3 hours, but the CLLA degrees require 6 hours. Breaking the current Rule A, which is 6 hours, into Rule A (3 hours) and Rule B (3 hours) will make the degree evaluation more precise and easily identifiable between the state requirement and the college requirement.

Use the checkboxes below to make sure that all information is included.

7. a. Proposed curriculum attached. ☐ Yes ☑ No
   b. Current catalog curriculum with handwritten edits attached. ☐ Yes ☑ No
   c. Current Howdy degree evaluation with handwritten edits attached. ☑ Yes ☐ No

Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? ☐ Yes ☑ No
   b. If yes, degree program hours will change from: _________ to: _________
   c. If yes, is the Texas Higher Education Coordinating Board form attached? ☐ Yes ☐ No

http://www.thecb.state.tx.us/index.cfm?objectid=A0F9F7FA-9A92-4F11-2756AD3BBFF01D60

9. If proposed changes affect other unit(s), are letters of support attached? ☐ Yes ☐ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UCC/GC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:

[Signature] [Name, Title & Date]

Department Head or Program Chair

[Signature] [Name, Title & Date]

Chair, College Review Committee

[Signature] [Name, Title & Date]

Chair, Graduate Instruction Committee

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 04/14
October 24, 2014

PSA

TO: Dr. Leonard Bright
Bush GIC Chair and Assistant Dean of Graduate Education
Bush School of Government & Public Service

FROM: Dr. Dennis Jansen
Interim Head
Department of Economics

SUBJECT: Changes to Undergraduate Degree Evaluation in MPSA & MPIA-ECON Joint Degree Plans

The Department of Economics is submitting a few minor changes to the undergraduate degree evaluations in an effort to standardize them across degree programs in the College of Liberal Arts. The changes include:

1. Added a Rule B to the Social Science Area
2. Moved the location of required literature courses to the Communication Area
3. Added SPAN 302 as an acceptable course in the Foreign Language Area

These changes only affect the undergraduate portion of the MPSA and MPIA joint degree plans. They will not affect the way Bush School courses are double counted or the number of shared hours counting toward the completion of either degree.

We are seeking your support for these proposed changes to the curriculum.
PSA - ECON - BS
Detail Requirements

Information for Degree Evaluation

This is NOT an official evaluation.

Program Evaluation

Limitation Correspondence: No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

Limitation Combination: Maximum combination of 18 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

Limitation Only one course from MATH 141, 166 may be used in this degree program.

Limitation Only 11 hours of KINE 199; AERS 100-499; MISC 100-499; NVSC 100-499; SOMS 100-499 may be used in this degree program to include hours counted toward Residency.

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Other Course Information

Transfer: 0.000 0

This is NOT an official evaluation.

Area Major Coursework (93.000 credits) - Not Met

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Total Credits and GPA 0.000 .00

unofficial evaluation

Area Supporting Coursework (6.000 credits) - Not Met

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unofficial evaluation

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C. Literature Requirement (Three)

unofficial evaluation
Select two courses in literature from college approved list.

unofficial evaluation

**Area Mathematics (11.000 credits) - Not Met**

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unofficial evaluation

**Area Life and Physical Sciences (9.000 credits) - Not Met**

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<tr>
<td>No</td>
<td>A.</td>
<td>Life/Physical Sciences 9hrs</td>
<td>Select 9 hours from any courses with the Life and Physical Sciences attribute (KIP5).</td>
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unofficial evaluation

**Area Lang. Phil. CULT. & Cr. Arts (16.000 credits) - Not Met**

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<td>Creative Arts 3hrs</td>
<td>Select from any course with the Creative Arts (KPCA) attribute.</td>
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<tr>
<td>No</td>
<td>B.</td>
<td>Language, Philosophy &amp; Culture</td>
<td>Select from any course with the Language, Philosophy, and Culture (KPC) attribute.</td>
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<tr>
<td>No</td>
<td>C.</td>
<td>Lang. Phil. Cult. &amp; Cr. Arts</td>
<td>Select from any course with the Language, Philosophy, and Culture (KPC) attribute or with the Creative Arts (KPCA) attribute.</td>
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Area: Social and Behavioral Science (6.000 credits) - Not Met

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<td></td>
<td>A. Social Science 3hrs.</td>
<td>Select from any course with a [KSOC] attribute (except ECON 100-499, ECON 100-499)</td>
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unofficial evaluation

Area: Citizenship (12.000 credits) - Not Met

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<td>Select from any course with the [HIST] attribute.</td>
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unofficial evaluation

Area: General Elective (21.000 credits) - Not Met

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<td></td>
<td>A. General Electives 21hrs</td>
<td>Select from BUSI or PSAS 601-699 or any 100-499 course not used elsewhere (except ECON 100-499, ECON 100-499, ENGL 103).</td>
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unofficial evaluation

Area: Work Not Applied - Met

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unofficial evaluation

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<td>only sections of ECON 100-499; ECMT 100-499; UGST 491 with</td>
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<tr>
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<td>the Writing attribute [UWRT] or the Oral Communication attribute</td>
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<td>[UCRT] may be used to satisfy this requirement.</td>
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**unofficial evaluation**

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**unofficial evaluation**

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**unofficial evaluation**

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<tbody>
<tr>
<td>Description</td>
<td>A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&amp;M University. 12 hours must be in the major field.</td>
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**unofficial evaluation**

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<tr>
<td>Description</td>
<td>A GPA of 2.00 must be maintained in all major field courses.</td>
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**unofficial evaluation**
PSA - ECON - BA
Detail Requirements

Information for Degree Evaluation

This is NOT an official evaluation.

Program Evaluation

Limitations:
1. No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.
2. Maximum combination of 19 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.
3. Only one course from MATH 141, 146 may be used in this degree program.
4. Only 11 hours of KINE 199; AERS 100-499; MLSC 100-499; MUSC 100-499; DOME 100-499 may be used in this degree program. Include 12 hours counted toward Residency.

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<th>Catalog Term 1</th>
<th>Fall 2014 - College Station</th>
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<td>Expected Graduation Date 1</td>
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<td>Overall GPA</td>
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Other Course Information

Transfer 1 | 0.000 | 0 |

This is NOT an official evaluation.

Area Major Coursework (33.000 credits) - Not Met

No Condition Rule Subject Attribute Low High Required Credits Courses

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<td>Must make a grade of &quot;C&quot; or better.</td>
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<td>Must make a grade of &quot;C&quot; or better.</td>
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<td>No AND</td>
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<td>Must make a grade of &quot;C&quot; or better.</td>
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<td>No AND</td>
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<td>ECON 410</td>
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<td>Must make a grade of &quot;C&quot; or better.</td>
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<td>No AND</td>
<td>E.</td>
<td>ECON 333 21hrs</td>
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<td>Select from ECON 333, 475; ECON 301-499 (except 322), 307; BUSH 622, 632, 633; PSAA 621, 622, 638, 640, 674.</td>
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Total Credits and GPA 0.000 0.00

unofficial evaluation

Area Supporting Coursework (3.000 credits) - Not Met

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<td>Departmental Exam 1hrs</td>
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<td>Take ACCT 209</td>
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unofficial evaluation

Area Communication (6.000 credits) - Not Met

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<td>Must have a grade of &quot;C&quot; or better.</td>
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<td>B.</td>
<td>Communication</td>
<td>Requirement</td>
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<td>Requirement</td>
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<td>ENGL 203, 210; COMM 202, 205, 243.</td>
<td>ENGL 203, 210; COMM 202, 205, 243.</td>
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unofficial evaluation

Area Mathematics (9.000 credits) - Not Met

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<th>Course(s)</th>
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<td>Select from</td>
<td>MATH 141, 146.</td>
<td>3hrs</td>
<td>Select from</td>
<td>MATH 131, 142, 151.</td>
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<td>Mathematics</td>
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unofficial evaluation

Area Life and Physical Sciences (8.000 credits) - Not Met

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<td>9</td>
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<td>hours</td>
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<td>any courses with the life and physical sciences attribute (KLLP).</td>
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unofficial evaluation

Area Foreign Language (14.000 credits) - Not Met

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<th>Course(s)</th>
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<td>14hrs</td>
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<td>Arabic</td>
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<td>1. 8 hours. Take ARAB 101 and 102.</td>
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<td></td>
<td>2. 6 hours. Take ARAB 201 and 202.</td>
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<tr>
<td>No</td>
<td>OR(</td>
<td>B.</td>
<td>Chinese</td>
<td>14hrs</td>
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<td>Chinese</td>
<td>14hrs</td>
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<td>1. 8 hours. Take CHIN 101 and 102.</td>
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<td>2. 6 hours. Take CHIN 201 and 202.</td>
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<tr>
<td>No</td>
<td>OR(</td>
<td>C.</td>
<td>French</td>
<td>14hrs</td>
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<td></td>
<td>French</td>
<td>14hrs</td>
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<td></td>
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<td></td>
<td>1. 8 hours. Take FREN 101 and 102.</td>
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<td></td>
<td>2. 3 hours. Select from FREN 201 or 221.</td>
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<td></td>
<td>3. 3 hours. Select from FREN 202 or 222.</td>
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<tr>
<td>No</td>
<td>OR(</td>
<td>D.</td>
<td>German</td>
<td>14hrs</td>
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<td></td>
<td>German</td>
<td>14hrs</td>
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<td></td>
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<td></td>
<td>1. 8 hours. Take GERM 101 and 102.</td>
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</tr>
</tbody>
</table>

Total Credits and GPA 0.000 .00
3. 3 hours. Select from GERI 101 or 221.
4. 3 hours. Select from GERI 201 or 222.

No JCR

E. Greek 14hrs
1. 8 hours. Take CLAS 101 and 102.
2. 6 hours. Take CLAS 211.
3. 3 hours. Select from CLAS 311 or 312.

No JCR

F. Italian 14hrs
1. 8 hours. Take ITAL 101 and 102.
2. 6 hours. Take ITAL 201 and 202.

No JCR

G. Japanese 14hrs
1. 8 hours. Take JAPN 101 and 102.
2. 6 hours. Take JAPN 201 and 202.

No JCR

H. Latin 14hrs
1. 8 hours. Take CLAS 121 and 122.
2. 6 hours. Take CLAS 221 and 222.

No JCR

I. Portuguese 14hrs
1. 8 hours. Take PORT 101 and 102.
2. 6 hours. Take PORT 201 and 202.

No JCR

J. Russian 14hrs
1. 8 hours. Take RUSS 101 and 102.
2. 6 hours. Select from RUSS 201, 203, 221, 222.

No JCR

K. Spanish 14hrs
1. 4 hours. Take SPAN 101.
2. 6 hours. Select from SPAN 102 or 140.
3. 3 hours. Select from SPAN 201 or 221.
4. 3 hours. Select from SPAN 222.

Total Credits and GPA 0.000 .00

unofficial evaluation

Area Lang. Phil. Cult. & Cr. Arts (18.000 credits) - Not Met

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rules</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term Subject</th>
<th>Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A. Creative Arts 3hrs</td>
<td>Select from any course with the Creative Arts (KCRA) attribute.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>No</td>
<td>AND B. Language, Philosophy &amp; Culture</td>
<td>Select from any course with the Language, Philosophy, and Culture (K LPC) attribute.</td>
<td></td>
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</tr>
<tr>
<td>No</td>
<td>AND C. Lang. Phil. Cult. &amp; Cr. Arts</td>
<td>Select from any course with the Language, Philosophy, and Culture (K LPC) attribute or with the Creative Arts (KCRA) attribute.</td>
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</tr>
<tr>
<td>No</td>
<td>AND Literature Requirement 6hrs</td>
<td>Select from COMM 221, 222; ENGL 203, 204, 205, 212, 221, 222, 227, 228, 231, 232, 236, 242-252; 254, 256, 259, 262-346, 386, 310, 312, 314, 342-346, 396; MDCS 221, 222; or courses for which one of these courses is a prerequisite.</td>
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</table>

Total Credits and GPA 0.000 .00

unofficial evaluation

Area Social and Behavioral Sciences (6.000 credits) - Not Met

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rules</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term Subject</th>
<th>Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A. Social Sciences 3hrs</td>
<td>Select from any course with a [K SOC] attribute (except ECON 100-499; ECMT 100-499)</td>
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</tr>
</tbody>
</table>

B. Social Science 3hrs.
select from any course with a [K SOC] attribute (except ECON 100-499; ECMT 100-499)

Total Credits and GPA 0.000 .00
unofficial evaluation

Area: Citizenship (12.000 credits) - Not Met
Description: Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.

<table>
<thead>
<tr>
<th>No</th>
<th>Met</th>
<th>Condition Rule Subject Attribute Low High Required Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A.</td>
<td>American History Reqmt 6hrs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select from any course with the [KHIS] attribute.</td>
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<td></td>
<td>AND</td>
<td>B.</td>
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<tr>
<td></td>
<td></td>
<td>Take POLS 206 and POLS 207.</td>
</tr>
<tr>
<td></td>
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<td>Total Credits and GPA 0.000 .00</td>
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</table>

unofficial evaluation

Area: General Electives (12.000 credits) - Not Met
Description: No more than 1.5 hrs of any combination of ROTC and Physical Activity will be allowed.

<table>
<thead>
<tr>
<th>No</th>
<th>Met</th>
<th>Condition Rule Subject Attribute Low High Required Term Subject Course Title Attribute Credits Grade Source</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>A.</td>
<td>General Electives 1.5hrs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select from BUSN/PSAA 601-699 or any 100-499 course not used elsewhere (except ECHT 100-499; ECON 100-499; ENGL 103).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Credits and GPA 0.000 .00</td>
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</table>

unofficial evaluation

Area: Work Not Applied - Met
Description: See advisor for acceptable substitutions.

<table>
<thead>
<tr>
<th>No</th>
<th>Met</th>
<th>Condition Rule Subject Attribute Low High Required Term Subject Course Title Attribute Credits Grade Source</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>A.</td>
<td>Courses not applied</td>
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<tr>
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unofficial evaluation

Area: University Writing Requirement - Not Met

<table>
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<tr>
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<th>Condition Rule Subject Attribute Low High Required Term Subject Course Title Attribute Credits Grade Source</th>
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<tbody>
<tr>
<td></td>
<td>A.</td>
<td>Writing Requirement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Two courses required.</td>
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<tr>
<td></td>
<td></td>
<td>Only sections of ECON 100-499; ECHT 100-499; UXST 491 with the Writing attribute [UWRT] or the Oral Communication attribute [UCRT] may be used to satisfy this requirement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Credits and GPA 0.000 .00</td>
</tr>
</tbody>
</table>

unofficial evaluation

Area: Int'l & Cult Diversity - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>Met</th>
<th>Condition Rule Subject Attribute Low High Required Term Subject Course Title Attribute Credits Grade Source</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>A.</td>
<td>Int'l &amp; Cultural Diversity 6hrs</td>
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<tr>
<td></td>
<td></td>
<td>Select from courses with the International and Cultural Diversity attribute ([ICD]) (except sections of BUSN 268 with the UWRT attribute).</td>
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<td></td>
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<td>Total Credits and GPA 0.000 .00</td>
</tr>
</tbody>
</table>
Area 1: Residence Requirement - Not Met
Description: A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field.

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade Source</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Residence - Major 12hrs</td>
<td>Includes BUSH or PSAA 601-699; ECON 300-499</td>
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<tr>
<td>No</td>
<td>AND B.</td>
<td>Residence - 300-499 24hrs</td>
<td>Includes any 300-499 course or BUSH or PSAA 601-699</td>
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</table>

Total Credits and GPA: 0.000 .00

unofficial evaluation

Area 1: GPA-Major - Not Met
Description: A GPA of 3.00 must be maintained in all major field courses.

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade Source</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Major GPA 3.00+ hrs</td>
<td>Includes BUSH 622-632, 635; ECON 100-499; ECON 100-499, 607; PSAA 621, 623, 638, 563, 674.</td>
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</tbody>
</table>

Total Credits and GPA: 0.000 .00

unofficial evaluation

Back to Display Options
November 7, 2014

To: Dr. Mark Zoran, Chair
University Graduate Council

To: Dr. Patricia A. Hurley
Associate Dean, Faculty & Graduate Programs
College of Liberal Arts

Thru: [Signature]

FROM: Dr. Dennis W. Jansen
Interim Head
Department of Economics

SUBJECT: Changes to Undergraduate Degree Evaluation for BS-ECON-LEC

The Department of Economics is submitting a few minor changes to the undergraduate degree evaluations in an effort to standardize them across degree programs in the College of Liberal Arts. The changes include:

1. Added a Rule B to the Social Science Area
2. Moved the location of required literature courses to the Communication Area
3. Added SPAN 302 as an acceptable course in the Foreign Language Area

These changes only affect the undergraduate portion of the 5 year BS-MS ECON degree plans. They will not affect the way the Masters-level courses are double counted or the number of shared hours counting toward the completion of either degree.

We are seeking your support for these proposed changes to the curriculum.


Detail Requirements

Information for Degree Evaluation

This is NOT an official evaluation.

Program Evaluation

Limitation Correspondence: No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

Limitation Combination: Maximum combination of 18 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

<table>
<thead>
<tr>
<th>Program :</th>
<th>BS ECON - LEC Program</th>
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<tbody>
<tr>
<td>Campus :</td>
<td>College Station</td>
</tr>
<tr>
<td>College :</td>
<td>Liberal Arts</td>
</tr>
<tr>
<td>Degree :</td>
<td>Bachelor of Science</td>
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<td>Level :</td>
<td>Undergraduate</td>
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<td>Majors :</td>
<td>Economics</td>
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<tr>
<td>Departments :</td>
<td>Economics</td>
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</table>

| Catalog Term : | Fall 2014 - College Station |
| Evaluation Term : | Fall 2014 - College Station |
| Expected Graduation Date : | |
| Request Number : | 5 |
| Results as of : | Oct 24, 2014 |
| Minors : | |
| Concentrations : | |

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<tr>
<th>Met Credits</th>
<th>Courses</th>
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<td>Required</td>
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<tr>
<td>Program GPA :</td>
<td>Yes</td>
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<tr>
<td>Overall GPA :</td>
<td>No</td>
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<tr>
<td>Other Course Information</td>
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<td>Transfer :</td>
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</table>

This is NOT an official evaluation.

Area Major Coursework (35.000 credits) - Not Met

| Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits G Courses |
|------------|---------|---------|---------|---------|----------------|---------|---------|---------|
| No         | A.      | ECON 202 | Must make a grade of "C" or better. |
| No AND     | B.      | ECON 203 | Must make a grade of "C" or better. |
| No AND     | C.      | ECON 323 | Must make a grade of "C" or better. |
| No AND     | D.      | ECON 410 | Must make a grade of "C" or better. |
| No AND     | E.      | ECON 460 | Must make a grade of "C" or better. |
| No AND     | F.      | ECON Elect 12hrs | Select from ECMT 475; ECON 301-499 (except 322). Must make a grade of "C" or better. |
| No AND     | G.      | ECON 607 | Must make a grade of "C" or better. |
| No AND     | H.      | ECON 674 | Must make a grade of "C" or better. |
**Detail Requirements**

**Area Supporting Coursework (9.000 credits) - Not Met**

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Departmental Rqmt I 3hrs</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Take ACCT 209.</td>
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<tr>
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<td>AND</td>
<td>B.</td>
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<tr>
<td></td>
<td></td>
<td>Take ACCT 210.</td>
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<td>No</td>
<td>AND</td>
<td>C.</td>
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**Area Communication (6.000 credits) - Not Met**

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<thead>
<tr>
<th>No</th>
<th>A.</th>
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<td>Must have a grade of 'C' or better.</td>
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<td>AND</td>
<td>B.</td>
</tr>
<tr>
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<td>Select from ENGL 203, 210; COMM 203, 205, 243.</td>
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</table>

**Area Mathematics (12.000 credits) - Not Met**

<table>
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<th>A.</th>
<th>Mathematics Rqmt I 3hrs</th>
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<td></td>
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<td>Must take MATH 151.</td>
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<tr>
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<td></td>
<td>Must take MATH 152.</td>
</tr>
<tr>
<td>No</td>
<td>AND</td>
<td>C.</td>
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<tr>
<td></td>
<td></td>
<td>Must make a grade of 'C' or better.</td>
</tr>
<tr>
<td>No</td>
<td>AND</td>
<td>D.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Must make a grade of 'C' or better.</td>
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</tbody>
</table>

**Area Life and Physical Sciences (9.000 credits) - Not Met**
### Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits & Courses

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Life/Physical Sciences 9hrs</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Select 9 hours from any courses with the Life and Physical Sciences attribute [LPS]</td>
</tr>
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</table>

Total Credits and GPA 0.000

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### Area Lang. Phil. Cult. & Cr. Arts (25.000 credits) - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Creative Arts 3hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Select from any course with the Creative Arts [KCRA] attribute.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>ABD</th>
<th>B.</th>
<th>Language, Philosophy &amp; Culture 3hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Select from any course with the Language, Philosophy, and Culture [KLPC] attribute.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>ABD</th>
<th>C.</th>
<th>Lang. Phil. Cult. &amp; Cr. Arts 3hrs</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Select from any course with the Language, Philosophy, and Culture [KLPC] attribute or with the Creative Arts [KCRA] attribute.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>ABD</th>
<th>Literature Requirement 6hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Select from COMM 224, 225; ENGL 203, 204, 205, 212, 221, 222, 222, 228, 231, 237, 239, 300, 300, 300, 300; HIST 322, 323; JOUR 271; MODL 211-222; or course for which one of these courses is a prerequisite.</td>
</tr>
</tbody>
</table>

Total Credits and GPA 0.000

---

### Area Social and Behavioral Science (6.000 credits) - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Social Science 3hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Select from any course with a [KSOC] attribute (except ECON 100-499; ECMT 100-499)</td>
</tr>
</tbody>
</table>

AND B. Social Science 3hrs

Total Credits and GPA 0.000

---

### Area 1: Citizenship (12.000 credits) - Not Met

**Description:** Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>American History Rqmt 6hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Select from any course with the [KHIS] attribute.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>AND</th>
<th>B.</th>
<th>Political Science Rqmt 6hrs</th>
</tr>
</thead>
</table>
unofficial evaluation

Area: General Electives (18.000 credits) - Not Met
Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits & Courses
No     A. General Electives 18hrs
       Select from ECON 601-699 or any 100-499 course not used elsewhere (except ECMT 100-499; ECON 100-499).

unofficial evaluation

Area: Work Not Applied - Met
Description: See advisor for acceptable substitutions.
Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits & Courses
No     A. Courses not applied

unofficial evaluation

Area: University Writing Requirement - Not Met
Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits & Courses
No     A. Writing Requirement
Two courses required.
Only sections of ECON 100-499; ECMT 100-499; UGST 491 with the Writing attribute [WRT] or the Oral Communication attribute [OCRT] may be used to satisfy this requirement.

unofficial evaluation

Area: Int'l & Cult Diversity - Not Met
Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits & Courses
No     A. Int'l & Cultural Diversity 6hrs
Select from courses with the International and Cultural Diversity attribute [UDC] (except sections of BUSN 289 with the UWRT attribute).

unofficial evaluation
**Area: Foreign Language - Not Met**

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Foreign Language Reqmt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Complete one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Two years of the same foreign language in High School.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. A two semester sequence of the same foreign language for University Credit.</td>
</tr>
</tbody>
</table>

Total Credits and GPA: 0.000

---

**Area: Residence Requirement - Not Met**

**Description:** A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field.

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Residence - Major 12 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Includes ECMT 300-499; ECON 300-499 (excluding ECON 322).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>AND</th>
<th>B.</th>
<th>Residence - 300-499 24 hrs</th>
</tr>
</thead>
</table>

Total Credits and GPA: 0.000

---

**Area: GPR-Major - Not Met**

**Description:** A GPR of 2.00 must be maintained in all major field courses.

<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Major GPR 30-hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Includes ECON 100-499; ECMT 100-499; ECON 600-699.</td>
</tr>
</tbody>
</table>

Total Credits and GPA: 0.000

---

unofficial evaluation

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Back to Display Options
October 27, 2014

MEMORANDUM

TO: Dr. Mark Zoran

THROUGH: Amb. Ryan Crocker
Dean of The Bush School of Government and Public Service

THROUGH: Dr. Leonard Bright
Assistant Dean of Graduate Education and Graduate Instruction Committee Chair
The Bush School of Government and Public Service

FROM: Dr. F. Gregory Gause, III
Department Head, International Affairs Department
The Bush School of Government and Public Service

SUBJECT: Statement of Support for Changes to Degree Evaluations for INTS 3+2 Programs

This memorandum affirms that the Bush School of Government and Public Service supports the changes to the undergraduate degree evaluations for the B.A. INTS 3+2 program as listed on the attached forms. These changes do not affect the curriculum at the graduate level of the 3+2 program.
Texas A&M University
Request for a Change in Curriculum
Undergraduate □ Graduate □ Professional

1. Program request type: □ Undergraduate □ Graduate □ First Professional (e.g., DVM, JD, MD, etc.)

2. Request change for: □ Degree Program □ Minor □ Certificate

3. Request submitted by (Department or Program Name): International Studies
   Program Designation and Name: B.A. in International Studies; 3+2 Joint Degree Program with the Bush School

4.  □ Yes □ No


6. Rationale for change: [1] The addition of a new elective, INTS 301, to all tracks provides students with an advanced theoretical course in the discipline. [2] Expansion of Communication rule B allows students to complete requirement with any course with the Communication attribute [KCOM], so that revisions do not need to be submitted each time a new course is added to this area of the core. [3] SPAN 203 is an equivalent course to SPAN 202, designed for heritage speakers of Spanish. [4] Currently, a significant amount of course adjustment requests are being submitted to move literature courses, which pick up in the KLPC rule (B), to the literature rule (C). Due to the Communication area being prioritized higher in the degree evaluation, the literature courses will be picked up in this area first. Therefore, moving the literature requirement to the Communication area, rule C, will alleviate most of the KLPC/literature adjustment requests. The state core curriculum requirement for Social and Behavioral Science is 3 hours, but the CLA degrees require 6 hours. By breaking the current rule A, which is 6 hours, into rule A (3 hours) and rule B (3 hours), it will make the degree evaluation more precise and easily identifiable between the state requirement and the college requirement.

7. a. Proposed curriculum attached. □ Yes □ No
   b. Current catalog curriculum with handwritten edits attached. □ Yes □ No
   c. Current Howdy degree evaluation with handwritten edits attached. □ Yes □ No

   Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? □ Yes □ No
   b. If yes, degree program hours will change from: to:

   c. If yes, is the Texas Higher Education Coordinating Board form attached? □ Yes □ No

   http://www.thecb.org/index.cfm/ObjectId.4089-7F4A-8A92-4F11-2756A3D311D1-10116D0

9. If proposed changes affect other unit(s), are letters of support attached? □ Yes □ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (Decentralized-UCC/GC, January-Faculty Senate, February-Presidents) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible to ensure timely implementation.

Approval recommended by:

Robert R. Shandley
Department Head or Program Chair (Type Name & Sign) Date

Dean of College Date

Chair, College Review Committee Date

Chair, GC or UCC Date

Questions regarding this form should be directed to Curricular Services at 845-8291 or curricular.services@tamu.edu.

Curricular Services - 3/1/14
# Detail Requirements

Information for Degree Evaluation

This is NOT an official evaluation.

## Program Evaluation

Limitation Correspondence: No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

Limitation Combination: Maximum combination of 18 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

Limitation Only one course from MATH 141, 166 may be used in this degree program.

Limitation Only 14 hours of KINE 199; AEES 100-499; MISC 100-499; NVISC 100-499; SOMS 100-499 may be used in this degree program to include hours counted toward residency.

<table>
<thead>
<tr>
<th>Program</th>
<th>Catalog Term</th>
<th>Evaluation Term</th>
<th>Expected Graduation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA INTS 3+2 Program</td>
<td>Fall 2014 - College Station</td>
<td>Fall 2014 - College Station</td>
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<table>
<thead>
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<th>Degree</th>
<th>Request Number</th>
<th>Results as of</th>
<th>Minor(s)</th>
<th>Concentrations</th>
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<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>229</td>
<td>Sep 08, 2014</td>
<td>International Studies</td>
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</table>

<table>
<thead>
<tr>
<th>Net Credits</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Used</td>
</tr>
<tr>
<td>Total Required</td>
<td>No</td>
</tr>
<tr>
<td>Program GPA</td>
<td>Yes</td>
</tr>
<tr>
<td>Overall GPA</td>
<td>No</td>
</tr>
</tbody>
</table>

Other Course Information

Transfer: 0.00

This IS NOT an official evaluation.

## Area Major Coursework (15.000 credits) - Not Met

<table>
<thead>
<tr>
<th>Net Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No A. INTS 201</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must make a grade of &quot;C&quot; or better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No AND B. INTS 205</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must make a grade of &quot;C&quot; or better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1hr course to be taken 3 times.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No AND C. 400-level INTS - 6hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must make a grade of &quot;C&quot; or better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select from INTS 400-460, 485(no more than 3hrs), 489, 497</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No AND D. INTS 481</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must make a grade of &quot;C&quot; or better.</td>
<td></td>
<td></td>
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</tbody>
</table>

unofficial evaluation

## Area Supporting Coursework (10.000 credits) - Not Met

<table>
<thead>
<tr>
<th>Net Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No A. Int'l Politics &amp; Diplomacy 18hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must make a grade of &quot;C&quot; or better.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select from ECON 203, 228, 124, 330, 452; HIST 343, 444, 462-464; INTS 484; POLS 324, 320-329, 331, 347, 350, 358, 364, 370, 394, 409, 439, 458, 543, 547, 558, 565</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
unofficial evaluation

Area Area Studies Requirement (9.000 credits) - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Latin America 5hrs</td>
<td></td>
<td>Must make a grade of &quot;C&quot; or better. To be chosen from an approved list on the INTS website in consultation with an advisor.</td>
</tr>
<tr>
<td></td>
<td>B. Europe 5hrs</td>
<td></td>
<td>Must make a grade of &quot;C&quot; or better. To be chosen from an approved list on the INTS website in consultation with an advisor.</td>
</tr>
<tr>
<td></td>
<td>C. Africa 5hrs</td>
<td></td>
<td>Must make a grade of &quot;C&quot; or better. To be chosen from an approved list on the INTS website in consultation with an advisor.</td>
</tr>
<tr>
<td></td>
<td>D. Asia 5hrs</td>
<td></td>
<td>Must make a grade of &quot;C&quot; or better. To be chosen from an approved list on the INTS website in consultation with an advisor.</td>
</tr>
<tr>
<td></td>
<td>E. N. Africa &amp; The Mid East 5hrs</td>
<td></td>
<td>Must make a grade of &quot;C&quot; or better. To be chosen from an approved list on the INTS website in consultation with an advisor.</td>
</tr>
</tbody>
</table>

unofficial evaluation

Area Communication (3.000 credits) - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. ENGL 104</td>
<td></td>
<td>Must have a grade of &quot;C&quot; or better.</td>
</tr>
<tr>
<td></td>
<td>B. Communication Rqmt 3hrs</td>
<td></td>
<td>Select from any course with the Communication attribute [kComm]</td>
</tr>
</tbody>
</table>

unofficial evaluation

Add Rule C. Literature Requirement 6hrs
Select from college approved list

Area Mathematics (6.000 credits) - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A. Mathematics Rqmt 3hrs</td>
<td></td>
<td>Select any course with the [kMATH] attribute.</td>
</tr>
<tr>
<td></td>
<td>B. Math/Logic Rqmt 3hrs</td>
<td></td>
<td>Select from PHI 140 or any course with the [kMATH] attribute.</td>
</tr>
</tbody>
</table>

unofficial evaluation

Area Life and Physical Sciences (9.000 credits) - Not Met

<table>
<thead>
<tr>
<th>No</th>
<th>Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
</table>
unofficial evaluation

Area 1: Foreign Languages (30.000 credits) - Not Met

Description: Complete 1 of the Following Groups.

A. French 20hrs
1. 8hrs. Take FREN 101, 102.
2. 3hrs. Select from FREN 201, 221.
3. 3hrs. Select from FREN 202, 222.
4. 6hrs. Select from FREN 300-499.

B. German 20hrs
1. 8hrs. Take GERM 101, 102.
2. 3hrs. Select from GERM 201, 221.
3. 3hrs. Select from GERM 202, 222.
4. 6hrs. Select from GERM 300-499.

C. Italian 20hrs
1. 8hrs. Take ITAL 101, 102.
2. 6hrs. Take ITAL 201, 202.
3. 6hrs. Select from ITAL 300-499.

D. Japanese 20hrs
1. 8hrs. Take JAPN 101, 102.
2. 6hrs. Take JAPN 201, 202.
3. 6hrs. Select from JAPN 300-499.

E. Russian 20hrs
1. 8hrs. Take RUSS 101, 102.
2. 6hrs. Select from RUSS 201, 202, 221, 222.
3. 6hrs. Select from RUSS 300-499.

F. Spanish 20hrs
1. 4hrs. Take SPAN 101.
2. 4hrs. Select from SPAN 102, 140.
3. 3hrs. Select from SPAN 201, 221.
4. 3hrs. Select from SPAN 300-499.
5. 6hrs. Select from SPAN 300-499.

G. Chinese 20hrs
1. 8hrs. Take CHIN 101, 102.
2. 6hrs. Take CHIN 201, 202.
3. 6hrs. Select from CHIN 300-499.

H. Arabic 20hrs
1. 8hrs. Take ARAB 101, 102.
2. 6hrs. Take ARAB 201, 202.
3. 6hrs. Select from ARAB 300-499.

Net Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source
No ( ) A. French 20hrs
No OR B. German 20hrs
No OR C. Italian 20hrs
No OR D. Japanese 20hrs
No OR E. Russian 20hrs
No OR F. Spanish 20hrs
No OR G. Chinese 20hrs
No OR H. Arabic 20hrs
<table>
<thead>
<tr>
<th>Area 1</th>
<th>Work Not Applied - Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Description: See advisor for acceptable substitutions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required</th>
<th>Required</th>
<th>Term Subject Course</th>
<th>Title Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Courses not applied</td>
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</table>

| Total Credits and GPA | 0.000 | .00 |

unofficial evaluation

<table>
<thead>
<tr>
<th>Area 1</th>
<th>University Writing Requirement - Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Description: Specific sections with prefixes (ASIA, ARAB, CHIN, FREN, GERM, ITAL, JAPN, RUSS, SPAN) with the Writing attribute [UWRT] or INTS 291, 400-405, 481, 481 or 487; USG 491 with the Writing attribute [UWRT] may be used to satisfy this requirement.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required</th>
<th>Required</th>
<th>Term Subject Course</th>
<th>Title Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Writing Requirement Course I</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Only sections with prefixes (ASIA, ARAB, CHIN, FREN, GERM, ITAL, JAPN, RUSS, SPAN) with the Writing attribute [UWRT] or INTS 291, 400-405, 481, 481 or 487; USG 491 with the Writing attribute [UWRT] may be used to satisfy this requirement.</td>
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</tr>
<tr>
<td>No</td>
<td>AND B.</td>
<td>Writing Requirement Course II</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Only sections of INTS 291, 400-405, 481, 481 or 487; USG 491 with the Writing attribute [UWRT] may be used to satisfy this requirement.</td>
<td></td>
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</tr>
</tbody>
</table>

| Total Credits and GPA | 0.000 | .00 |

unofficial evaluation

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Int'l &amp; Cult Diversity - Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Description: Select from courses with the International and Cultural Diversity attribute [IUCD] (except sections of RUSB 289 with the UWRT attribute).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required</th>
<th>Required</th>
<th>Term Subject Course</th>
<th>Title Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Int'l &amp; Cultural Diversity 6hrs</td>
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| Total Credits and GPA | 0.000 | .00 |

unofficial evaluation

<table>
<thead>
<tr>
<th>Area 1</th>
<th>Residence Requirement - Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Description: A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&amp;M University. 12 hours must be in the major field.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required</th>
<th>Required</th>
<th>Term Subject Course</th>
<th>Title Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Residence - Major 12hrs</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>AND B.</td>
<td>Residence - 300-499 24hrs</td>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>

| Total Credits and GPA | 0.000 | .00 |

unofficial evaluation

<table>
<thead>
<tr>
<th>Area 1</th>
<th>GPA-Major - Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Description: A GPA of 2.00 must be maintained in all major field courses.</td>
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</tbody>
</table>

<table>
<thead>
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| Total Credits and GPA | 0.000 | .00 |
Unofficial Evaluation

Back to Display Options
October 20, 2014

MEMORANDUM

To: Dr. Robert Shandley, Department Head
From: Janeen Wood
Assistant to the Department Head

Re: Undergraduate curriculum change

The International Affairs Department with the Bush School has no objections to the curriculum changes proposed by the International Studies Department. We understand that this change will have no effect on the graduate hours of the 3+2 program.

Thank you.