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 (DOS, MD, JD, PharmD, DVM)

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

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

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

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

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

9. How will this course be graded?  
   - [x] 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. [x] I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://yer.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  
   Course #  
   Title (excluding punctuation)  
   ANTH 670  
   Bridging Theme Seminar in Anth  

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Approval recommended by:  
Cynthia Werner  
Department Head or Program Chair (Type Name & Sign)  
Date: 11-02-14

Chair, College Review Committee  
Date: 11/11/14

Dean of College  
Date: 12/16/14

Chair, GC or JCC  
Date: 12/16/14

Questions regarding this form should be directed to Sandra Williams at 845-8221 or sandra-williams@tamu.edu.  
Curricular Services - 07/14
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 (¹⁴C 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
6 Oral Presentations (25 points each) 150 points
1 Mid-term Essay (50 points each) 50 points
1 Final Written Essay (100 points) 100 points
2 Geography Quizzes (25 points each) 50 points
Discussion Participation (100 points) 100 points
Total 450 points

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. 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 statuses, 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 Paleoanthropology and the Paleolithic.


**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
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**Setting the Stage: Method and Theory in Pleistocene Peopling of the Old World**

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<td>March 9</td>
</tr>
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<td>March 16</td>
<td><em>Spring Break!</em></td>
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**The Paleoanthropological Record for the Pleistocene Peopling of the Old World**

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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 (DOS, MD, JD, PharmD, DVM)

2. Request submitted by (Department or Program Name):
   Mays Business School
   BUAD 679 - Leadership Development

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

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.
   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)
   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)

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-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    BUAD  679  Leadership Development

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   Approval recommended by:
   Department Head of Program Chair (Type Name & Sign)  Date: 9/16/14
   Chair, College Review Committee  Date: 9/16/14
   Dean of College  Date: 12-16-14

   Submitted to Coordinating Board by:
   Associate Director, Curricular Services  Date: 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 Information

Course Title: Leadership Development
Course Number: BUAD 679
Credit Hours: 1 Credit Hour (awarded spring, 2016)
Meeting Times: Various, see detailed schedule below
Meeting Locations: All at CITYCENTRE unless otherwise noted

Instructor Information

Instructor: Michael Alexander, Director & Lecturer
Telephone number: Office: (979) 845-4714, Cell: (979) 229-1387
Email address: malexander@mays.tamu.edu
Office hours: Class weekends, Friday 5:00 – 9:00 pm and Saturday, 8:00 am – 2:00 pm
Office location: Wehner, 385F & Citycentre

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 compellingly 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>
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| 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>
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| 1 StrengthsFinder session     | Jeff Tobaben                  | Read your "Strengths Insight Guide" from your Strengthsfinder self-assessment results        | • Complete online self-assessment  
• Contributions Worksheet                                                       |
2. Team Charter, distributed at Residency Week                                      | Complete Team Charter with your team during your "team night" at Residency Week. |
| 3 "Why are we here?"          | Michael Alexander             |                                                                                             | • In-class engagement  
• In-class writing assignment                                                      |
| 4 Thinking as Leaders Think   | General John VanAlstyne       | 1. Article: "Solitude and Leadership", (Dr. William Deresiewicz).  
2. Case: "The Team That Wasn't", (Suzy Westfauler), *Harvard Business Review.*     | • Participation/engagement  
• 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  
• 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. |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Facilitator</th>
<th>Required Reading / Pre-work</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Five Dysfunctions Model for teams</td>
<td>Michael Alexander</td>
<td>Five Dysfunctions of a Team, (Patrick Lencioni).</td>
<td>• In-class engagement</td>
</tr>
<tr>
<td>7 Personal Leadership Statement</td>
<td>Dr. Nancy Simpson</td>
<td>Individualized feedback from Dr. Simpson</td>
<td>• Submission of Draft 1</td>
</tr>
<tr>
<td>8 Disaster City</td>
<td>Michael Alexander</td>
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<td>• Submission of Draft 2 (see above for dates)</td>
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<tr>
<td>9 Second Year Team Formation &amp; Disaster City + First year Reflection</td>
<td>Michael Alexander</td>
<td>Review &quot;The Model&quot; section of Five Dysfunctions of a Team, (Patrick Lencioni).</td>
<td>• Engagement in team formation break-out session (Personal Histories Exercise)</td>
</tr>
<tr>
<td></td>
<td>Dr. Nancy Simpson,</td>
<td>1. Re-read your own Personal Leadership Statement, Draft 1 &amp; 2</td>
<td>• In-class reflective writing assignment</td>
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<td></td>
<td>Michael Alexander,</td>
<td>2. Read your peer’s Personal Leadership Statement, Draft 2</td>
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<td></td>
<td>and Coaches</td>
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<td>Engagement in Coaching Session with peer and coach</td>
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<td>10 Personal Leadership Statement</td>
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<td>• Engagement in class discussion</td>
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<td></td>
<td>Dr. Mary Lea McAnally</td>
<td></td>
<td>• In-class reflective writing assignment</td>
</tr>
<tr>
<td>12 Ethics</td>
<td>Dr. Mary Lea McAnally</td>
<td>• Case: &quot;Roger's Dilemma&quot;</td>
<td>In-class engagement</td>
</tr>
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<td></td>
<td></td>
<td>• Article: &quot;A Framework for Ethical Reasoning&quot;, (Sucher &amp; Hsieh), Harvard University School.</td>
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<tr>
<td>13 Negotiation Strategy and Skills</td>
<td>Dr. George Siedel</td>
<td>Getting to Yes: Negotiating Agreement Without Giving In, (Fisher, Ury, Patton).</td>
<td>Engagement in session, individual negotiations, and team negotiations</td>
</tr>
<tr>
<td>14 Personal Leadership Statement</td>
<td>Dr. Janet Marcantonio &amp; Michael Alexander</td>
<td>• Previous drafts of Personal Leadership Statement</td>
<td>• Capstone reflections paper</td>
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<tr>
<td></td>
<td></td>
<td>• All previous reflective writings</td>
<td>• Capstone Q&amp;A (related to your leadership reflections)</td>
</tr>
</tbody>
</table>
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

From: Urbina, Patti
Sent: Tuesday, September 09, 2014 10:52 AM
To: Mann, Deborah; Acosta, Amber; Orzabal, Julie; Page, Misty
Subject: RE: New Leadership course

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.

From: Mann, Deborah
Sent: Tuesday, September 09, 2014 9:32 AM
To: Urbina, Patti; Acosta, Amber; Orzabal, Julie; Page, Misty
Subject: FW: New Leadership course

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
   ECEN 741 ELECTRONIC MOTOR DRIVES

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

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):
   Graduate classification.

   Cross-listed with:
   Stacked with: ECEN 441

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

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

7. Is this a repeatable course? ☑ 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 (CL/MD)

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-control-basics-for-distance-education).

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

    Lect. Lab Other S/U CP and Fund Code Admin. Unit Acad. Year ECU Code
    3.00 3.00 4.00 1410010006 0936 15 - 16 0 0 3 6 3 2

    Approval recommended by:

    Krishna Narayanan
    Department Head or Program Chair (Type Name & Sign) Date
    11/13/14

    Chair, College Review Committee
    11/13/14

    Department Head or Program Chair (Type Name & Sign) Date
    (if cross-listed course)
    12-16-14

    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
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.
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<td>3</td>
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<td>Speed control of DC motors</td>
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<tr>
<td>Quiz #1</td>
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<td>7</td>
<td>BLDC motor drives</td>
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<td>8</td>
<td>Conceptual development of induction motors</td>
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<td>9</td>
<td>Construction of induction motors</td>
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<td>10</td>
<td>Torque production in induction motors</td>
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<td>Induction motor equivalent circuit</td>
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<td>Power electronic converters for AC drives</td>
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<td>Quiz #2</td>
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<td>14</td>
<td>Design considerations for electric motor drives</td>
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<tr>
<td>Design Project</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](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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Lab: 20%
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Class Participation: 5%

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

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### Course Topics, Calendar of Activities, Major Assignment Dates

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### Academic Integrity

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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 program(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)

<table>
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<tr>
<th>EDCI</th>
<th>751</th>
<th>PROBLEM BASED RESEARCH FRAMEWORK</th>
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<td>(Lect.  Lab  Other  SCH  CIP and Fund Code  Admin. Unit  Acad. Year  HFL Code)</td>
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<td>Approval recommended by: Dr. Ying Li  11/11/14  Dr. George Cunningham  1/31/14  Dr. George Cunningham  1/31/14  Dr. Mark Zorn  12-16-14  Chair, GC or UCC  Date  Date  Date  Date  Date</td>
</tr>
</tbody>
</table>

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  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.
Textbook and/or Resource Material

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 politely 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>
</tr>
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Grade Distribution

<table>
<thead>
<tr>
<th>Points Range</th>
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<tbody>
<tr>
<td>900 -1000 pts.</td>
<td>A</td>
</tr>
<tr>
<td>800 - 899 pts.</td>
<td>B</td>
</tr>
<tr>
<td>700 - 799 pts.</td>
<td>C</td>
</tr>
<tr>
<td>600 - 699 pts.</td>
<td>D</td>
</tr>
<tr>
<td>&lt;600 pts.</td>
<td>F</td>
</tr>
<tr>
<td>Week</td>
<td>Topics</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Week 1</td>
<td>Introductory Post</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>
</tr>
<tr>
<td>Week 3</td>
<td>Review of the literature; epistemology perspectives and controversy; the role of research affecting policy</td>
</tr>
<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>
</tr>
<tr>
<td>Week 5</td>
<td>Writing strategies; education research: paradigms and perspectives; ethical and socio cultural considerations</td>
</tr>
<tr>
<td>Week 6</td>
<td>Writing an abstract; the research problem and problem-based research; deficiencies in the literature</td>
</tr>
<tr>
<td>Week 7</td>
<td>Purpose statements in qualitative, quantitative and mixed methods research; hermeneutics and reframing conceptions</td>
</tr>
<tr>
<td>Week 8</td>
<td>Research questions and hypothesis; causal process, and cost questions</td>
</tr>
<tr>
<td>Week 9</td>
<td>Break Week</td>
</tr>
<tr>
<td>Week 10</td>
<td>Quantitative research procedures; stakeholder involvement; structuring and defining the process</td>
</tr>
<tr>
<td>Week 11</td>
<td>Qualitative research procedures; creativity &amp; managing change, cost benefit analysis and alternatives</td>
</tr>
<tr>
<td>Week 12</td>
<td>Mixed methods research procedures; content &amp; change methodology; effectiveness and making recommendations</td>
</tr>
<tr>
<td>Week 13</td>
<td>Review of course materials, ROS discussion</td>
</tr>
<tr>
<td>Week 14</td>
<td>Problems of Practice Research Week; Analysis, application, implementation and monitoring</td>
</tr>
<tr>
<td>Week 15</td>
<td>Problems of Practice Due &amp; Final Exam</td>
</tr>
</tbody>
</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](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](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](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 programs(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-controls-basics-for-distance-education).
13. Prefix Course # Title (excluding pronunciation)

<table>
<thead>
<tr>
<th>FINC</th>
<th>601</th>
<th>FINANCIAL ANALYSIS PRACTICUM</th>
</tr>
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<tbody>
<tr>
<td>Lec.</td>
<td>Lab.</td>
<td>Other</td>
</tr>
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<td>3.00</td>
<td>3.00</td>
<td>6.00</td>
</tr>
</tbody>
</table>

Approval recommended by:

R. T. Dye
Department Head or Program Chair (Type Name & Sign) Date
M.L. McAnally Nov. 24/14 2
Chair, College Review Committee Date

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

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-0201 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/](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](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>
</tr>
</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>
Course grades will be determined as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Max Points</th>
<th>Graded Components</th>
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</thead>
<tbody>
<tr>
<td>Module I</td>
<td>50</td>
<td>Attendance/Participation (10%), 3 Composite Exams (30% Each)</td>
</tr>
<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>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td></td>
</tr>
</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**

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## 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 1</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>
</tr>
<tr>
<td>13 – Afternoon</td>
<td>8/26 - Wed</td>
<td>Finance 2</td>
</tr>
<tr>
<td>14 – Morn</td>
<td>8/27 - Thu</td>
<td>Accounting 3</td>
</tr>
<tr>
<td>14 – Afternoon</td>
<td>8/27 - Thu</td>
<td>Finance 3</td>
</tr>
<tr>
<td>15 – Morn</td>
<td>8/28-Fri</td>
<td>Composite Exam – Econ, Finance, Accounting</td>
</tr>
<tr>
<td>15 – Afternoon</td>
<td>8/28-Fri</td>
<td>Networking</td>
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</table>
Module II – Applied Financial Analysis (Fall 2015 - Meets once/week for 2.5 Hours)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>3</td>
<td>TBD</td>
<td>Financial Analysis Exercise</td>
</tr>
<tr>
<td>4</td>
<td>TBD</td>
<td>Intro to Fundamental Analysis</td>
</tr>
<tr>
<td>5</td>
<td>TBD</td>
<td>Fundamental Analysis Guest Speaker– Questions Due Before Class; Summary Due Afterwards</td>
</tr>
<tr>
<td>6</td>
<td>TBD</td>
<td>Fundamental Analysis Exercise</td>
</tr>
<tr>
<td>7</td>
<td>TBD</td>
<td>Intro to Quantitative Analysis</td>
</tr>
<tr>
<td>8</td>
<td>TBD</td>
<td>Quantitative Analysis Guest Speaker– Questions Due Before Class; Summary Due Afterwards</td>
</tr>
<tr>
<td>9</td>
<td>TBD</td>
<td>Quantitative Analysis Exercise</td>
</tr>
<tr>
<td>10</td>
<td>TBD</td>
<td>Intro to Technical Analysis</td>
</tr>
<tr>
<td>11</td>
<td>TBD</td>
<td>Technical Analysis Guest Speaker– Questions Due Before Class; Summary Due Afterwards</td>
</tr>
<tr>
<td>12</td>
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<td>Technical Analysis Exercise</td>
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<tr>
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<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>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
</tr>
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</tr>
<tr>
<td>1</td>
<td>TBD</td>
<td>Project Introduction</td>
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<tr>
<td>2</td>
<td>TBD</td>
<td>Developing Models for Financial Analysis</td>
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<td></td>
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<td>Interviewing Management</td>
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<tr>
<td>3</td>
<td>TBD</td>
<td>Written/Oral Reports for Financial Analysts</td>
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<tr>
<td>4</td>
<td>TBD</td>
<td>Coverage Initiation Presentation Due/Critiques</td>
</tr>
<tr>
<td>5</td>
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<td>Coverage Initiation Reports Due/Critiques</td>
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<tr>
<td>6</td>
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<td>Weekly Coverage Updates/Critiques</td>
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<td>7</td>
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</tr>
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<td>8</td>
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<td>9</td>
<td>TBD</td>
<td>Weekly Coverage Updates/Critiques</td>
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<td>10</td>
<td>TBD</td>
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<td>11</td>
<td>TBD</td>
<td>Weekly Coverage Updates/Critiques</td>
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<td>12</td>
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<td>Weekly Coverage Updates/Critiques</td>
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<tr>
<td>13</td>
<td>TBD</td>
<td>Weekly Coverage Updates/Critiques</td>
</tr>
<tr>
<td>14</td>
<td>TBD</td>
<td>Lessons Learned Reports/Presentations</td>
</tr>
</tbody>
</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate ✔ Graduate ☒ First Professional (DDS, MD, JD, PharmD, DVM)

1. Course request type:

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):
   Enrollment 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://vnr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

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

   3.00 0.00 0.00 3.00 5208010016 1110 15 - 16 0 0 3 6 3 2

   Approval recommended by:

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

   M.L. McAnally
   Chair, College Review Committee Date

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

   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 – 07/14
Instructor: TBD
Email: TBD
Phone Number: TBD
Office location: TBD
Office hours: TBD

Class Website: 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 hand 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) in the first two weeks of the semester so that you don’t miss any of the assignments.

**Grading**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW Assignments</td>
<td>40%</td>
</tr>
<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:

- **A** 90% or above
- **B** 80% - 89%
- **C** 70% - 79%
- **D** 60% - 69%
- **F** less than 60%

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). 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>
</tr>
<tr>
<td>3</td>
<td>Valuing Bonds</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>4</td>
<td>Investment Decision Rules</td>
<td>Chapter 7</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>7</td>
<td>Midterm Exam</td>
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<tr>
<td>8</td>
<td>Pricing of Risk and Optimal Portfolio Choice</td>
<td>Chapter 10-11</td>
</tr>
<tr>
<td>9</td>
<td>Estimating the Cost of Capital</td>
<td>Chapter 12</td>
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<tr>
<td>10</td>
<td>Market Efficiency</td>
<td>Chapter 13</td>
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<tr>
<td>11</td>
<td>Capital Structure</td>
<td>Chapter 14-15</td>
</tr>
<tr>
<td>12</td>
<td>Financial Distress and Information</td>
<td>Chapter 16</td>
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<tr>
<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>
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<tr>
<td>15</td>
<td>Final Exam</td>
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</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
   - [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):
   Enroll in limited to MS-FINC students only or by approval of Department Head
   - [ ] NA
   Stacked with:
   - [ ] NA

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?
    - [x] 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. 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)

<table>
<thead>
<tr>
<th>FINC</th>
<th>603</th>
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<td>Lect.</td>
<td>Lab</td>
<td>Other</td>
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<td>3.00</td>
<td>0.00</td>
<td>0.00</td>
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</table>

Approval recommended by:
R. T. Dye
Department Head or Program Chair (Type Name & Sign) Date
Nov. 24, 14

M.L. McAnally
Chair, College Review Committee Date
Nov. 24, 2014

Dean of College
Date
12-16-14

Chair, GCC & UCC
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.

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 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.

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:

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 (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 603 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>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100%</td>
<td>100</td>
</tr>
</tbody>
</table>

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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<tbody>
<tr>
<td>PC ≥ 90</td>
<td>A</td>
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<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>
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</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>
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</thead>
<tbody>
<tr>
<td>before deadline</td>
<td>0%</td>
<td>100%</td>
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<tr>
<td>1st 24 hours after deadline</td>
<td>20%</td>
<td>80%</td>
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<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>
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<tr>
<td>5th 24 hours after deadline</td>
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<table>
<thead>
<tr>
<th>Week</th>
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<th>Suggested Problems*</th>
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<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>
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<td></td>
<td>Margin Purchases and Short Sales</td>
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<td>2</td>
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<td>5.4-5.6, 5.8</td>
<td>CC 3, 4, 6; P 7-10; CFA 1-7</td>
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<td>6.1-6.6</td>
<td>CC 1-8; P 1-25, 27, 28a, 29a; CFA 1-9</td>
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<td>Portfolio Risk and Return</td>
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<td>7.1-7.4</td>
<td>CC 1-5; P 1-19; CFA 1-13</td>
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<td>Efficient Portfolios and Optimal Risky Portfolios</td>
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<td>The Capital Market Line</td>
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<td>8.1-8.3, 8.5</td>
<td>CC 1-5; P 1-16; CFA 1-5</td>
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<td>Index Models 2</td>
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<td>Semester Project</td>
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<td>7</td>
<td>Review</td>
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<td>Exam 1</td>
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<td>8</td>
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<td>CC 1-5; P 1-21, 23; CFA 1-12</td>
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<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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<td>Arbitrage Pricing Theory 2</td>
<td>10.4, 10.5</td>
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<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>
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<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>
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<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>
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<td>15.1-15.6</td>
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<td>Term Structure 2</td>
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<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>
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<td>Immunization</td>
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<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>
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<td></td>
<td>Equity Valuation: Growth Opportunities</td>
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<td>14</td>
<td>Equity Valuation: PE Ratios</td>
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<td>Review</td>
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<tr>
<td>15</td>
<td>Final Exam</td>
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</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  ☑ 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 604 Fixed Income Securities

5. Prerequisite(s):
   FINC 602 and FINC 603 or by approval of Department Head
   Required courses require the signatures of both department heads.
   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://vps.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).

13. Prefix  Course #  Title (excluding punctuation)
    FINC  604  FIXED INCOME SECURITIES
    Lec.  Lab  Other  SCH  CIP and Fund Code  Admin. Unit  Acad. Year  FCE Code
    3.00  0.00  0.00  3.00  5208070016  1110  15  -  16  0  3  6  3  2

Approval recommended by:

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

Department Head or Program Chair (Type Name & Sign)  Date
Dean of College  12-14-14

Submitted to Coordinating Board by:

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
FINC 604 Fixed Income Securities
Section 6xx
Instructor: TBD
XXXX@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.

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 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://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor).

**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 and Makeup Policy**

You are expected 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 any graded exercise without a valid, documented university excuse, you will receive a grade of zero. According to university policy, there are exactly eight 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](http://student-rules.tamu.edu/rule07).

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.

\[
\begin{align*}
\text{SCORE} \geq 315 & \quad \text{A} \\
315 > \text{SCORE} \geq 280 & \quad \text{B} \\
280 > \text{SCORE} \geq 245 & \quad \text{C} \\
245 > \text{SCORE} \geq 210 & \quad \text{D} \\
210 > \text{SCORE} & \quad \text{F}
\end{align*}
\]

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:

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<tr>
<th>If the project is submitted...</th>
<th>Penalty Maximum</th>
<th>Possible Score</th>
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<td>80%</td>
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<td>2nd 24 hours after deadline</td>
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<tr>
<td>4th 24 hours after deadline</td>
<td>80%</td>
<td>20%</td>
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<tr>
<td>5th 24 hours after deadline</td>
<td>100%</td>
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</table>
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**Course Agenda**

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<th>Module</th>
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<tr>
<td>1</td>
<td>1</td>
<td>Bond Myths, Security Types, Arbitrage Principle, Prices vs. Yield to Maturity</td>
<td>1, 2</td>
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<td>2</td>
<td>Zeros (Strips), Spot Rates, Forward Rates</td>
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<td>Term Structure, Empirical Yield Curves, Yield Spreads</td>
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<td>Macaulay Duration, Modified Duration, Convexity</td>
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<td>Risk-neural Probability, Interest Rate Trees</td>
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<td>7</td>
<td>Binomial Bond Pricing, Ho-Lee Model</td>
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<td>Vasicek Model, BDT Model</td>
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<td>Continuous Time Models</td>
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<td>CIR Model, EXAM 2</td>
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<td>5</td>
<td>11</td>
<td>Lab Sessions</td>
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<td>6</td>
<td>12</td>
<td>Common Mortgages, Mortgage Backed Securities, PSA Model</td>
<td>21</td>
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<td>7</td>
<td>13</td>
<td>Credit Ratings, KMV Model, Credit Derivatives (Credit Default Swaps)</td>
<td>Notes</td>
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<td>8</td>
<td>14</td>
<td>Advanced Pricing Techniques for Fixed Income Derivatives</td>
<td>Notes</td>
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<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  □ 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

4. Catalog course description (not to exceed 50 words):
   Principles of value creation. Definition of fundamental value, market value, and replacement value. Differences between well-established valuation approaches. Applications to measuring the value of business organizations using rigorous applications of financial theory and accounting principles.

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. Title (excluding punctuation):
   FINC 605
   VALUATION

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<th>Other</th>
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<td>16</td>
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</table>

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

   M.L. McAnally
   Chair, College Review Committee
   Date

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

   Submitted to Coordinating Board by:
   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 as 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>Percentage</th>
</tr>
</thead>
<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 be 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 Mergent Online are a good databases to check for this information. You can find links on the following website: [http://guides.library.tamu.edu/Business-Database-List](http://guides.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 others 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 policies on academic integrity and honor, visit the following website: http://appliedhonor.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>Date</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>
<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>
</tr>
<tr>
<td>4</td>
<td>Free Cash Flows &amp; SCF</td>
<td>3.1-3.4</td>
<td>D&amp;S--Financial Ratio Exercises</td>
</tr>
<tr>
<td>5</td>
<td>Special Issues with FCF</td>
<td>3.5-3.7,</td>
<td>S--Valuation Project: Stage 1</td>
</tr>
<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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<tr>
<td>7</td>
<td>Creating a Financial Model 2</td>
<td>4</td>
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<tr>
<td>8</td>
<td>In-Class Financial Modeling Exercise</td>
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<tr>
<td>9</td>
<td>The APV and WACC Methods</td>
<td>5</td>
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<tr>
<td>10</td>
<td>Measuring Continuing Value</td>
<td>6</td>
<td></td>
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<tr>
<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>D&amp;S--APV, WACC, EFC, EVA Exercises</td>
<td></td>
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<tr>
<td></td>
<td>Optional Midterm Review Session in 115 @ 5:30 PM</td>
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<tr>
<td>13</td>
<td>Midterm Exam (In Class)</td>
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<tr>
<td>14</td>
<td>Cost of Equity Capital 1</td>
<td>8</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>
</tr>
<tr>
<td>18</td>
<td>Leverage &amp; the cost of capital 2</td>
<td>10</td>
<td></td>
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<tr>
<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>
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</tr>
<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>
</tr>
<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>
</tr>
<tr>
<td>26</td>
<td>Advanced Topic: Mergers &amp; Acquisitions</td>
<td>16</td>
<td>S--Multiples Exercises</td>
</tr>
<tr>
<td>27</td>
<td>Discussion of Real Options Case</td>
<td>D &amp; S -- Real Option Case</td>
<td></td>
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<tr>
<td>28</td>
<td>M&amp;A Case &amp; Review (If Time Permits)</td>
<td>D--M&amp;A Case</td>
<td></td>
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<tr>
<td></td>
<td>Optional Final Review Session in 115 @ 5:30 PM</td>
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</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
   Course prefix, number and complete title of course: GEOG 659 Geodatabases
3. 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):
   Cross-listed with:
   None
   None
   Cross-listed courses require the signature of both department heads.
   Stacked with:

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

8. 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)

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://vp.tamu.edu/resources/export
    controls/export-controls-basics-for-distance-education).

13. Prefix: GEOG
    Course #: 659
    Title (excluding punctuation): Geodatabases

    Lec. Lab Other SCH CP and Fund Code Admin. Unit Acad. Year HFL Code
    3.00 2.00 4.00 450702 06 1250 15 16 0 0 3 6 3 2

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

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

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

    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 – 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

Meeting Time and Locations

Lecture
Time: TBD
Room: TBD

Labs
500 – TBD
Room: TBD

Class website
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 will work in teams of up to 4 to apply the spatial database concepts learned in lectures with the 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 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) 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 becomes an issue.
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

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

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”

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture Topics</th>
<th>Exams</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to the Class &amp;</td>
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<td>Spatial Databases</td>
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<td>2</td>
<td>Data Modeling</td>
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<td>Data Modeling &amp;</td>
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<td>Geodatabases</td>
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</tr>
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<td>4</td>
<td>ER Diagrams</td>
<td>PROPOSAL PITCHES</td>
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<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 1</td>
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*I reserve the right to make changes to the course schedule*
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<thead>
<tr>
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<th>Exams</th>
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<tr>
<td>8</td>
<td>Indexing &amp; Performance</td>
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<td>9</td>
<td>Enterprise Spatial Databases</td>
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<td>10</td>
<td>Service Oriented Architectures</td>
<td>MIDTERM 2</td>
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<tr>
<td>11</td>
<td>Publishing &amp; Consuming</td>
<td>PROPOSAL STATUS REPORT II</td>
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<tr>
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<td>Spatial Data</td>
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<td>12</td>
<td>Standards &amp; Metadata</td>
<td>NO CLASS (THANKSGIVING)</td>
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<td>13</td>
<td>Versioning &amp; Maintenance</td>
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</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 (DO, 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
   P/F ✔ CLMD

9. How will this course be graded? ✔ Grade □ S/U

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.

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

   Unit  Lab  Other  SCH  CPI and Fund Code  Admin. Unit  Acad. Year  HCG Code
   3.00  0.00  3.00  4004020002  1250  15  16  0  0  3  6  3  2

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

   Dean of College
   Date

   Chair, Graduate Council
   Date

   Chair, Curriculum Services
   Date

   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
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://aggiehonor.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://aggiehonor.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 □ Gradute □ First Professional (DDS, MD, JD, PharmD, DPM)
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
   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-controls/export-controls-basics-for-distance-education).

13. Prefix Course Title (excluding punctuation)

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<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CRP and Final Code</th>
<th>Admin Unit</th>
<th>Acad Year</th>
<th>ECTS Code</th>
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<td>1250</td>
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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 11/19/14
Chair, College Academic Committee Date 11/17/2014
Dean of College Date 11/17/2014
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.
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
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://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 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 extends its functionality;
4) Programatically 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 ArcGISTM 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)

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 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. 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**

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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.”

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**Student Support**

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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 I</th>
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<td>Programming Environments</td>
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<td>Syntax &amp; Data Structures</td>
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<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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</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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<tbody>
<tr>
<td>8</td>
<td>Programming for GIS</td>
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<td>9</td>
<td>GIS Automations</td>
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<tr>
<td>10</td>
<td>GIS Customizations</td>
<td>MIDTERM 2</td>
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<td>11</td>
<td>GIS Extensions</td>
<td>PROPOSAL STATUS REPORT II</td>
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<td>12</td>
<td>Consuming &amp; Distributing Code</td>
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<tr>
<td>13</td>
<td>Principles and Practices of Software Development</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Future of GIS Programming</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
3. Course prefix, number and complete title of course: GEOG 678 WebGIS
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 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.
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)
    M.S., Ph.D. in Geography
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   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. Pref: Course: Title (excluding punctuation)
    GEOG 678 WebGIS

    Lect.  Lab  Other  SCH  CIP and Fund Code  Atomic Unit  Acad. Year  HCE Code
    3.00  2.00  0  4.00  450702 06  1250  15 - 16  0  0  3  6  3  2

   Approval recommended by:
   David M. Cairns, Dept. Head
   Department Head or Program Chair (Type Name & Sign) Date
   Chair, Curriculum and Program 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 & UCC Date
   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
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

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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.

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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>
<tr>
<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>
<th>Reading</th>
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<tr>
<td>1</td>
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<td>Computer Forms</td>
<td>Code Academy HTML I</td>
<td>Fu &amp; Sun 1 - 2</td>
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<td>2</td>
<td>WebGIS Environments &amp; Architectures</td>
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<td>Server Connections &amp; Basic HTML &amp; GitHub</td>
<td>Code Academy Javascript I</td>
<td>Fu &amp; Sun 3</td>
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<td>Languages, Data Structures &amp; Data Types</td>
<td>Proposal Pitches</td>
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<td>Advanced HTML</td>
<td>Code Academy Javascript II</td>
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<td>Proposal Pitches</td>
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<td>Proposal Presentations</td>
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<td>Proposal Presentations</td>
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<td>8</td>
<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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## Course Schedule (Tentative)

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<thead>
<tr>
<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>9</td>
<td>GeoProcessing Services</td>
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<td>ArcServer Setup, Data Publishing &amp; Use</td>
<td>ArcGIS.com Guides</td>
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<td>Future of WebGIS</td>
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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: ☑ Graduate  ☐ Undergraduate  ☐ First Professional (DDS, MD, JD, PharmD, LVN)

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

3. Course prefix, number and complete title of course:  PERF625: 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, and class, 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.
   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)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      MA in Performance Studies

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)
    PERF  625  Latino/a Expressive Culture

   L#  Lab  Other  SCH  CIP and Fund Code  Admin Unit  Acad. Year  EICE Code
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   Approval recommended by:
   Donnalee Dix  Nov 10, 2014
   Department Head or Program Chair (Type Name & Sign) Date

   Chair, College Review Committee
   Patricia R. Hulsey  11/4/14
   Date

   Dean of College
   John R. Hulsey  11/4/14
   Date

   Chair, GC CC2
   John R. Hulsey  12/5/14
   Date

   Submitted to Coordinating Board by:
   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
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

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


**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, DVM)
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 365 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 (CLMBA)
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

Dean of College Date

A.D. Hill

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

Chair, CC or UCF 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
Course title and number: PETE 639: High Performance Drilling and Operational Practices
Term (e.g., Fall 200X): Spring 2015
Meeting times and location:
Instruction: RICH 106 MWF 3:00-3:50 pm
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

Name: Fred Dupriest, Professor of Engineering Practices
Telephone number: 713-548-7927 (C)
Email address: fred.dupriest@pe.tamu.edu
Office hours: M 12:00-3:00, WF 10:00-11:30 am & 4:00-5:00 pm
Office location: 501L Richardson Building

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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<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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<td>Week 13</td>
<td>Hole Cleaning</td>
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<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>
</tr>
<tr>
<td>Week 16</td>
<td>Exam #3</td>
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Americans with Disabilities Act (ADA)

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Academic Integrity

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

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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):
   Physics and Astronomy

3. Course prefix, number and complete title of course:
   PHYS 647: Gravitational Physics

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. Is this a variable credit course?
   - Yes
   - No

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

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. 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) |
    |--------|------------------------------|
    | PHYS   | 647 Gravitational Physics    |

    Lect. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | EUC Code |
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    Approval recommended by:
    George R Welch
    
    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
    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. 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 (D.D.S., M.D., J.D., PharmD, D.V.M.)
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 called D-branes.

5. Prerequisite(s): PHYS 634 and 653 required; PHYS 647 recommended
6. Cross-listed with: N/A
7. Stacked with: N/A
8. Is this a variable credit course? 
   - Yes
   - No
9. If yes, from _____ to _____
10. Is this a repeatable course? 
    - Yes
    - No
11. If yes, this course may be taken _____ times.
12. Will this course be repeated within the same semester? 
    - Yes
    - No
13. Will this course be submitted to the Core Curriculum Council? 
    - Yes
    - No
14. How will this course be graded? 
    - Grade
    - S/U
    - P/F (CLMD)
15. 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
16. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.
17. 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).

18. Prefix  Course #  Title (excluding punctuation)
    PHYS       651        Superstring Theory I

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Approval recommended by:
George R Welch, Chair of College Review Committee
Date: 12 Nov 2014

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

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

Dean of College
Date: 12-15-14

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
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,I superstring theories, worldvolume actions for D-branes and T-duality in the presence of background fields
(6) Weeks 13 & 14: The SO(32) and E8×E8 heterotic string; non-abelian gauge symmetry in string theory, toroidal compactifications
ADA statement
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Academic Integrity
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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: ☑ Graduate  □ Undergraduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Physics and Astronomy
PHYS 652: Superstring Theory II
3. Course prefix, number and complete title of course:

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

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

5. 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 (CMD)

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)

MS, PhD in physics

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

13. Prefix  Course #  Title (excluding punctuation)
PHYS  652  Superstring Theory II

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Approval recommended by:
George R. Welch 12 Nov 2014
Department Head or Program Chair (Type Name & Sign)  Date

Chair, College Review Committee  Date 12-1-14

Dean of College  Date 12-1-14

Chair, GC or UCC  Date 12-15-14

Submitted to Coordinating Board by:
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
PHYS 652: SUPERSTRING THEORY II

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

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 653: Introduction to Supersymmetry and Supergravity
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
   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)

MS, PhD in physics

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)

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<th>Lect</th>
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Approval recommended by:
George R. Welch
Department Head or Program Chair (Type Name & Sign)  Date 12 Nov 2014

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

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

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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 654: The Standard Model and Beyond

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 824 and 834

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

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)
    PHYS 654    The Standard Model and Beyond

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</table>

Approval recommended by:
George R Welch
12 Nov 2014

Chair, College Review Committee
12-1-14

Department Head or Program Chair (Type Name & Sign)
(If cross-listed course)
Dean of College
12-15-14

Submitted to Coordinating Board by:
Chair, GC or USC
12-15-14

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
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)

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**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 (DDE, 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

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 physics)

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  Course #  Title (excluding pronunciation)

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

Chair, College Review Committee  12-1-14
Date

Dean of College  12-15-14
Date

Submitted to Coordinating Board by:

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
PHYS 655: String Phenomenology

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)

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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): Department of Veterinary Integrative Biosciences
3. Course prefix, number and complete title of course: VIBS 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: VIBS 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.

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

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 (including pronunciation)
VIBS 622  ENDOCRINE TOXICOLOGY

Lect. Lab  Other  SCR  CIP and Final Grade  Admin. Unit  Acad. Year  EOC Code
4.00  0.00  0.00  4.00  2609040002  2873  15 - 18  0  0  3  6  3  2

Approval recommended by:

Evelyn Tiffany-Castiglioni  C. Jane Walsh
Department Head or Program Chair (Type Name & Sign)  Chair, College Review Committee
Date  Date

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

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 545-8201 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
Class room: VMA 328

Director/Instructor:

Sakhiya 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.

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<td>Senior classification; Approval of the instructor.</td>
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<td>Exam-4: Case study report *: 40%</td>
<td>Exam-4: Descriptive (short essays)*: 40%</td>
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<td><strong>Total:</strong> 100%</td>
<td><strong>Total:</strong> 100%</td>
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* Case Study Report: All students will be required to prepare a case study report (maximum total of
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 /endocrinological 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.

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<td>F</td>
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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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1. Casarett & Doull's Essentials of Toxicology, by Curtis D. Klaassen and John B. Watkins III.
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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).

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](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 (e.g. 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/](http://aggiehonor.tamu.edu/)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Title/Topic</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Friday 11.45 A.M.-12.45 P.M.</td>
<td>Introduction to Environmental Endocrine Disrupting Chemicals (EDC).</td>
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<tr>
<td>3</td>
<td>Tuesday 2.20-3.20 P.M.</td>
<td>Influence of EDCs on Learning and Memory, and Their Effects on Neurocognitive Disorders.</td>
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<tr>
<td></td>
<td>Thursday 1.30-2.30 P.M.</td>
<td>Structure and Toxicokinetics of Polychlorinated</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Time</td>
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<td>4</td>
<td>2</td>
<td>11.10 A.M-12.25 P.M</td>
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<td>5 3</td>
<td>2/3/2015</td>
<td>Tuesday 11.10 A.M-12.25 P.M</td>
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<td>7 5</td>
<td>2/10/2015</td>
<td>Tuesday 11.10 A.M-12.25 P.M</td>
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<td>8 5</td>
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<td>3/10/2015</td>
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<td>3/16/15 – 3/20/15</td>
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<tr>
<td>Week 11</td>
<td>Tuesday 11.10 A.M-12.25 P.M</td>
<td>4/7/2015</td>
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<tr>
<td>Week 12</td>
<td>Tuesday 11.10 A.M-12.25 P.M</td>
<td>4/14/2015</td>
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| Week 13 | Tuesday 11.10 A.M-12.25 P.M | 4/21/2015 | (i) In vivo and In vitro Research Approaches to Understand the Basic Mechanisms of Endocrine Disruption.  
(ii) Policies and Regulations of EDCs.  
(iii) Bioremediation.  
ANNOUNCEMENTS ABOUT CASE STUDY REPORT - ASSIGNMENT QUESTIONS |
|  | Thursday 11.10 A.M-12.25 P.M | 4/23/2015 | REVIEW AND DISCUSSION - 3 |
| Week 14 | Tuesday 11.10 A.M-12.25 P.M | 4/28/2015 | Preregistration for the 2015 first term, second term, 10-week summer semester, and fall semester. |
|  | Thursday 11.10 A.M-12.25 P.M | 4/30/2015 | EXAM – 3 |
| Week 15 | Tuesday 11.10 A.M-12.25 P.M | 5/5/2015 | Exam preparation; no classes |
|  | Thursday 11.10 A.M-12.25 P.M | 5/7/2015 | FINAL EXAM – ASSIGNMENTS – CASE REPORT DUE |

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
Cross-listed with:  VTPP 624  Stacked with:  VIBS 424/VTPP 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.
   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 (CLMU)
10. 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

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://ypr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
13. Prefix  Course #  Title (excluding punctuation)

<table>
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<tr>
<th>VIBS</th>
<th>624</th>
<th>Endocrinology</th>
</tr>
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<tbody>
<tr>
<td>Lect.</td>
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<td>1.00</td>
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<tr>
<td>CIP and Fund Code</td>
<td>Admin. Unit</td>
<td>Acad. Year</td>
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Approval recommended by:
Evelyn Tiffany-Castiglioni  11-14-14
Department Head or Program Chair (Type Name & Sign)
Date

John Stallone  11/7/14
Department Head or Program Chair (Type Name & Sign)
(if cross-listed course)
Date

C. Jane Walsh  11-21-14
Chair, College Review Committee
Date

Eleanor Green  11-21-14
Dean of College
Date

12-15-14

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
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
Email: clong@cvm.tamu.edu

Co-Instructor
Sakhila K. Banu, MS, MPhil, PhD
Assistant Professor
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

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.

<table>
<thead>
<tr>
<th>Prerequisite</th>
<th>Honors, Graduate Classification</th>
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<tbody>
<tr>
<td>Evaluation</td>
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<tr>
<td>Exam-1 (Multiple Choice type):</td>
<td>10 (Points)</td>
</tr>
<tr>
<td>Exam-2: (Multiple Choice type):</td>
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<tr>
<td>Exam-3: (Multiple Choice type):</td>
<td>10 (Points)</td>
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<tr>
<td>Final Exam</td>
<td>40 (Points)</td>
</tr>
<tr>
<td>Summary/Review</td>
<td>09 (Points)</td>
</tr>
<tr>
<td>Recitation</td>
<td>10 (points)</td>
</tr>
<tr>
<td>Attendance</td>
<td>11 (Points)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (Points)</td>
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</table>

* Final Exam is take home assignment. Totally 5 essay questions will be given. Each short essay question should be answered in the given 2 page limit. Exams 1, 2 & 3 are class room exams.

**See table on last page of syllabus

<table>
<thead>
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<tr>
<td>90-100</td>
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<td>80-89</td>
<td>B</td>
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<td>70-79</td>
<td>C</td>
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<tr>
<td>60-69</td>
<td>D</td>
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<tr>
<td>59 and less</td>
<td>F</td>
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</table>

Three in-class exams: 10 points each (30 points of final grade)
Five take-home assignments: 8 points each (40 points of final grade)
Three course summary/review projects: 3 points each (9 points of final grade), Recitation one per week 10 points to the final grade.
Attendance and Participation: 11 points of final grade

<table>
<thead>
<tr>
<th>Study Materials:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

Reference Text Books:

- Neuroendocrinology in Physiology and Medicine  
  Editor: P. Michel Conn & Marc E. Freeman
- Williams Text book of Endocrinology  
  Editor: Larson et al.
- Journals: Endocrinology and Nature Endocrine Reviews

Americans with Disabilities Act (ADA) Policy Statement

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Attendance/Late work
"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."

No late work will be accepted or make-up exams will be provided without a University-approved excuse. Attendance is essential to complete the course successfully and that accounts for 11 points of total marks. Unexcused absence to first lecture will result in losing 3 points, and absent to second and third classes will result in losing 4 points per class.

### COURSE OUTLINE AND SYLLABUS

<table>
<thead>
<tr>
<th>Week No.</th>
<th>Date, Day &amp; Time</th>
<th>Lecture No.</th>
<th>Title/Topic</th>
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<tbody>
<tr>
<td>01</td>
<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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<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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<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>
<td>Research Paper -2</td>
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<td>Thu 2-3.30PM</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>05.</td>
<td>Overview on Biosynthesis, Transport and Signaling of Lipid Hormones-Prostaglandins, and Clinical Correlates</td>
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<td>Lab 03</td>
<td>Research Paper -3</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 Disorders</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>Lab 06</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>Lab 09</td>
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<td>Neuroendocrine Control of Obesiy: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Neuroendocrine Control of Thyroid: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>2-3.30PM Neuroendocrine Control Learning and Memory: Functional Anatomy,</td>
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<td>Endocrine Regulations and Endocrine Disorders</td>
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<td>Tue</td>
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<td></td>
<td>Tue</td>
<td>2-3.30PM Reading</td>
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<td>to Dr. Arosh by Email or hard copy. Evaluation and Grading</td>
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<th>Project. It includes literature review and project writing of minimum 10 pages.</th>
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<th>Exam-3: 10</th>
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<th>Recitation 10</th>
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<td>Final Exam: 40</td>
<td>Review &amp;Discussion: 09</td>
<td>Recitation 10</td>
<td>Attendance: 11</td>
<td>Total 100</td>
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<td>Review &amp;Discussion: 09</td>
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<td>Review &amp;Discussion: 09</td>
<td>Recitation 10</td>
<td>Attendance: 11</td>
<td>Total 100</td>
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</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 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?  ☑ 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?  ☑ 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)
       N/A
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
       N/A

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)
    VTPP  624  Endocrinology

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<th>Lab</th>
<th>Other</th>
<th>SCH</th>
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<th>Admin. Unit</th>
<th>Acad. Year</th>
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Approval recommended by:

John Stallone  11/14/14
Department Head or Program Chair (Type Name & Sign)  Date

C. Jane Welsh  11/21/14
Chair, College Review Committee  Date

Evelyn Tiffany-Castiglion  11-14-14
Department Head or Program Chair (Type Name & Sign)  Date
(If cross-listed course)

Dean of College  12-15-14

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
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
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Phone: 979-845-2331
Email: clong@cvm.tamu.edu

Co-Instructor

Sakhila K. Banu, MS, MPhil, PhD
Assistant Professor
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

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.

<table>
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<th>Prerequisite</th>
<th>Honors, Graduate Classification</th>
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<td>Exam-1 (Multiple Choice type):</td>
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<td>Exam-2: (Multiple Choice type):</td>
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<td>Exam-3: (Multiple Choice type):</td>
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<tr>
<td>Final Exam               :</td>
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</tr>
<tr>
<td>Summary/Review           :</td>
<td>09 (Points)</td>
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<tr>
<td>Recitation               :</td>
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<td>Attendance               :</td>
<td>11 (Points)</td>
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<tr>
<td>Total                    :</td>
<td>100 (Points)</td>
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</table>

* Final Exam is take home assignment. Totally 5 essay questions will be given. Each short essay question should be answered in the given 2 page limit. Exams 1, 2 & 3 are class room exams.

**See table on last page of syllabus

<table>
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<th>Grading</th>
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<td>C</td>
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<tr>
<td>60-69                    :</td>
<td>D</td>
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<td>59 and less              :</td>
<td>F</td>
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</table>

Three in-class exams: 10 points each (30 points of final grade)
Five take-home assignments: 8 points each (40 points of final grade)
Three course summary/review projects: 3 points each (9 points of final grade), Recitation one per week 10 points to the final grade.
Attendance and Participation: 11 points of final grade.

<table>
<thead>
<tr>
<th>Study Materials:</th>
<th></th>
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<tbody>
<tr>
<td>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.</td>
<td></td>
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</table>

Reference Text Books:
- Neuroendocrinology in Physiology and Medicine
  Editor: P. Michel Conn & Marc E. Freeman
- Williams Text book of Endocrinology
  Editor: Larson et al.
- Journals: Endocrinology and Nature Endocrine Reviews

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

"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).

### Attendance/Late work

"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)."

No late work will be accepted or make-up exams will be provided without a University-approved excuse. Attendance is essential to complete the course successfully and that accounts for 11 points of total marks. Unexcused absence to first lecture will result in losing 3 points, and absent to second and third classes will result in losing 4 points per class.

### COURSE OUTLINE AND SYLLABUS

<table>
<thead>
<tr>
<th>Week No.</th>
<th>Date, Day &amp; Time</th>
<th>Lecture No.</th>
<th>Title/Topic</th>
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<tbody>
<tr>
<td>01</td>
<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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<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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<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>Wed 2-5.00PM</td>
<td>Lab 02</td>
<td>Research Paper -2</td>
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<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>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>
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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>Wed 2-5.00PM</td>
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<td>Research Paper Groups Discussion-1</td>
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<td>REVIEW AND 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 Disorders</td>
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<tr>
<td>Tue</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>Lab 06. Research Paper -5</td>
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<td>Neuroendocrine Control Female Reproduction: Part-2. Functional Anatomy, Endocrine Regulations and Endocrine Disorders of Corpus Luteum</td>
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<td>Tue</td>
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<td>Neuroendocrine Control Female Reproduction: Part-3. Functional Anatomy, Endocrine Regulations and Endocrine Disorders of Endometrium and Uterus</td>
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<td>Lab 07. Research Paper -6</td>
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<td>Neuroendocrine Control Female Reproduction: Part-5. Functional Anatomy and Endocrine Regulations of Labor and Preterm Labor and Postpartum Complications</td>
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<td>Lab 08. 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>Tue</td>
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<td>Dr. REVIEW AND DISCUSSION-2</td>
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<td>Lab 09. Research Paper Groups 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>Neuroendocrine Control of Pancreas: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Neuroendocrine Control of Obesity: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Neuroendocrine Control of Thyroid: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Neuroendocrine Control of Parathyroid: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Neuroendocrine Control of Aging: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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<td>Tue</td>
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<td>Neuroendocrine Control Learning and Memory: Functional Anatomy, Endocrine Regulations and Endocrine Disorders</td>
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| Thu       |   |   | Thanks giving week-end  
|           |   |   | No Class |
| 14       | Tue   |   | REVIEW AND DISCUSSION-3  
|           |   |   | TAKE HOME FINAL EXAM ASSIGNMENT WILL BE GIVEN |
| Wed      | 2-5.00PM | Lab 14 | Research Paper Groups Discussion-3 |
| Thu      | 2-3.30PM | Dr. Arosh | EXAM-3 |
| Tue      | 2-3.30PM |   | Reading |
| 15       | Tue   | 2-3.30PM | FINAL EXAM. Return the final exam assignment between 2-3:30 pm to Dr. Arosh by Email or hard copy.  
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<td>Project. It includes literature review and project writing of minimum 10 pages.</td>
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