New Course Requests

A667  BUSH 635  Social Welfare and Health Policy  (3-0)  Credit 3.  Course explores the historical development and impact of US public welfare, child welfare, employment, and health social service programs.  Course analyzes values and assumptions that formed the foundations of social welfare policy and explores the social, economic, political, and cultural context in which these policies developed and their potential future.  Prerequisite(s): Graduate Classification.

A668  BUSH 636  Contract and Grant Management in the Public and Nonprofit Sectors  (3-0)  Credit 3.  Course examines the use of contracts and grants in providing social services.  Explores the theoretical background of government contracts and grants; the management of third-party services from the perspectives of government agencies, private sector contractors, and nonprofit organizations; and the skills needed to write effective grant and contract proposals.  Prerequisite(s): Graduate Classification.

A663  CHEM 658  Molecular Modeling  (1-1)  Credit 2.  An introduction to molecular modeling with an emphasis on quantum level calculations.  Lectures will cover the basic theory behind the calculations and lab work will focus on the practical application of modern computational chemistry codes.  Prerequisite(s): Graduate classification or approval of instructor.

A672  CVEN 631  System Identification and Nondestructive Damage Evaluation of Civil Engineering Structures  (3-0)  Credit 3.  Invasive assessment of civil structures; concepts of systems identification, damage detection, and safety evaluation; estimation of mass, damping, and stiffness properties; determination of load capacity and useful life.  Prerequisite(s): Graduate Status in CVEN, AERO or MEEN.

A664  ECEN 690  Switching Power Supplies  (3-0)  Credit 3.  This course deals with operating principles of switching power supplies.  Analysis and in-depth design of several types of switching regulators including buck, boost, forward, flyback, half and full bridge switching regulator analysis will be examined.  Elements of transformer and magnetic design will be introduced.  State space analysis and feedback loop stabilization principles will be explored.  Application of these in the industry will be explained.  Prerequisite(s): ELEN 438 or equivalent, approval of instructor.

A675  FINC 669  Titans of Investing  (3-0)  Credit 3.  Readings from the most influential theorists and practitioners of 20th and 21st century investing.  Case studies and portfolio sector exercises in an institutional context, based on detailed assessment of global investment risks.  Prerequisite(s): Approval of Instructor.

A677  PETE 635  Underbalanced and Managed Pressure Drilling  (3-0)  Credit 3.  This course provides an introduction and application of techniques utilized in underbalanced and managed pressure drilling; includes equipment, types of drilling fluids used (air, mist foam, etc.), flow drilling, mud cap drilling and hydraulics calculations.  Prerequisite(s): Graduate Classification.

A678  PETE 667  Petroleum Engineering Reserves and Evaluation  (3-0)  Credit 3.  Estimation and valuation of hydrocarbon reserves and resources, with emphasis on probabilistic methods, technically challenging reservoirs, and unconventional resources.  Prerequisite(s): PETE 664, approval of instructor.

A679  PLPA 601  Fundamentals of Plant Pathology  (3-0)  Credit 3.  Increase the understanding of the underlying mechanisms in the disease process; apply that understanding to reduce losses caused by disease; nature of disease causing agents; the outcomes of the interaction between plants and pathogens.  Prerequisite(s): Graduate Classification.
New Course Requests
A680  PLPA 614  Pathogens, the Environment, and Society  (3-0)  Credit 3. Survey the impact of microorganisms on development of modern culture and society; emphasize role pathogens have played in history of mankind; influence of changing environment on emerging diseases. Prerequisite(s): Graduate Classification.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of [Department Name]

2. Course prefix, number and complete title [Course Prefix] [Course Number]: [Course Title]

3. Course description (not more than 50 words) [Course Description]

4. Prerequisite(s) [Prerequisites]

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

6. Is this a repeatable course? [Yes] [No] If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? [Yes] [No]

7. Has this course been taught as a 489/689? [Yes] [No] If yes, how many times? [Number] Indicate the number of students enrolled for each academic period it was taught. Will be taught as 489 in Fall 07 / projected enrollment: 10

8. 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)

   MPSA (Master of Public Service and Administration Program)

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

10. Prefix Course # Title (exclude punctuation) [Prefix] [Course Number]: [Course Title]

    B U S H 6 3 5 S O C L W E L F A R E & H L T H P O L

    | Lect. | Lab | SCH | Subject Matter Content Code | Admin. Unit | Acad. Year | FICE Code |
    |-------|-----|-----|-----------------------------|-------------|------------|-----------|
    | 0     | 3   | 0   | 03405010001                 |              |            | 003632    |

    Approval recommended by: [Signature] Date: 5/10/07

    Chair, College Review Committee [Signature] Date: 5/10/07

    Dean of College [Signature] Date: 5/10/07

    Date

    Director of Academic Support Services

    Submitted to Coordinating Board by:

    Date

    Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OARAS-5/04
## Course Objectives

Exploration of the historical development and impact of North American public welfare, child welfare, employment and health social service programs. Analysis of the values and assumptions that formed the foundation of North American social welfare policies. Exploration of North American social, economic, political and cultural context in which policies developed and their future.

<table>
<thead>
<tr>
<th>How Many Attendance Points</th>
<th>Which Day</th>
<th>Which Date</th>
<th>Which Text Book (or) Journal Article (or) Reading</th>
<th>Which Pages Of the Textbook(s)</th>
<th>Student Exercise (or) Discussion Topic(s)</th>
<th>Is There a Video</th>
<th>The Professor's Lecture Topic Today Is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tues</td>
<td>August 28</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Yes 56 Minutes</td>
<td>Introductions/Syllabus /Paper /Presentation/Electronic Reserve Readings / Feelings / Study Time / Class Roster / Sign-in Sheet Library Readings / Schedule / Class Ambassador Instructor - Student: Syllabus Consultations - After Class.</td>
</tr>
<tr>
<td>3</td>
<td>Tuesday</td>
<td>Sept 4</td>
<td>Day - Darwin / Eupenasia 211 - 215 &amp; 231 - 234</td>
<td><strong>Social Darwinism</strong></td>
<td><strong>Yes 30 Minutes</strong></td>
<td>NA</td>
<td>Child Welfare: HHS - Budget - Foster Care &amp; Adoption Demographics.</td>
</tr>
<tr>
<td>4</td>
<td>Thursday</td>
<td>Sept 6</td>
<td>Day - Prehistoric and Social Welfare 87 - 74</td>
<td><strong>Greek and Roman Influences</strong></td>
<td><strong>Yes 30 Minutes</strong></td>
<td>NA</td>
<td>Child Welfare Policy: CAPTA - NABSW / MEPA &amp; IEPA.</td>
</tr>
<tr>
<td>10</td>
<td>Thursday</td>
<td>Sept 21</td>
<td>Day - Classifications of the Poor 139 - 140</td>
<td>The Right to Unemployment</td>
<td><strong>Yes 30 Minutes</strong></td>
<td>NA</td>
<td>Public Welfare Policy: PRWORA / TANF.</td>
</tr>
<tr>
<td>12</td>
<td>Thursday</td>
<td>Oct 4</td>
<td>Day - Unemployment Insurance 253 - 254</td>
<td>The Right to Unemployment</td>
<td><strong>Yes 30 Minutes</strong></td>
<td>NA</td>
<td>Job Creation - MDTA / CETA / JTPA &amp; JOBS Programs.</td>
</tr>
<tr>
<td>14</td>
<td>Thursday</td>
<td>Oct 10</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Outline of Term Paper Due - Student Consultations After Class.</td>
</tr>
<tr>
<td>16</td>
<td>Thursday</td>
<td>Oct 18</td>
<td>Dobeston Medical 332 &amp; 436 - 437</td>
<td>Health Care for the Poor or the Rich</td>
<td>NA</td>
<td>NA</td>
<td>Medicaid Legislation, Budget and Demographics.</td>
</tr>
<tr>
<td>How Many Attendance Points?</td>
<td>Which Day?</td>
<td>Which Date?</td>
<td>Which Text Book?</td>
<td>Which Pages Of The Textbooks (or Journal Article?)</td>
<td>Student Exercise Topics or Group Discussion Topic(s)</td>
<td>Is There a Video?</td>
<td>The Professor's Lecture Topic Today Is?</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------</td>
<td>-------------</td>
<td>------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>19</td>
<td>Thursday</td>
<td>Nov 1</td>
<td>Course Booklet Section 18</td>
<td>Interpretation of Graphics</td>
<td>Yes</td>
<td>Health Disparities</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Tuesday</td>
<td>Nov 6</td>
<td>Course Booklet Section 18</td>
<td>Interpretation of Graphics</td>
<td></td>
<td>Student Presentations</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Thursday</td>
<td>Nov 8</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 1 - Child Welfare - ASFA - Reducing Disproportionality</td>
</tr>
<tr>
<td>22</td>
<td>Tuesday</td>
<td>Nov 13</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 1 - Child Welfare - ASFA - Reducing Disproportionality</td>
</tr>
<tr>
<td>23</td>
<td>Thursday</td>
<td>Nov 15</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 2 - Public Welfare/PRWORA/TANF - Marriage Formation Programs</td>
</tr>
<tr>
<td>24</td>
<td>Tuesday</td>
<td>Nov 20</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 2 - Public Welfare/PRWORA/TANF - Marriage Formation Programs</td>
</tr>
<tr>
<td>25</td>
<td>Thursday</td>
<td>Nov 22</td>
<td>NA</td>
<td>NA</td>
<td>Thanksgiving</td>
<td>NA</td>
<td>Thanksgiving</td>
</tr>
<tr>
<td>26</td>
<td>Tuesday</td>
<td>Nov 27</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 3 - US Employment Program - WIA - Private</td>
</tr>
<tr>
<td>27</td>
<td>Thursday</td>
<td>Nov 29</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 3 - US Employment Program - WIA</td>
</tr>
<tr>
<td>28</td>
<td>Tuesday</td>
<td>Dec 4</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 4 - Medicaid and US Health Disparities</td>
</tr>
<tr>
<td>29</td>
<td>Thursday</td>
<td>Dec 6</td>
<td>Library Reading Set</td>
<td>NA</td>
<td>60 Min Student Presentation</td>
<td>NA</td>
<td>Group 4 - Medicaid and US Health Disparities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Term Papers Due - Submit A Copy &amp; Keep A Copy NoteBooks Due</td>
<td></td>
<td></td>
<td>Student Class Evaluations Due</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Instructor - Student - Final Grade Consultations - After Class</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Americans with Disabilities Act (ADA) Policy Statement

The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University curriculum committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 2118 of Cain Hall or call 845-1637.

Academic Integrity Statement

All syllabi shall contain a section that states the Aggie Honor Code and refers the student to the Honor Council Rules and Procedures on the web.

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 Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor

On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student:

"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."

Clarification

1. Please choose a group leader for groups 1, 2, 3, & 4.
2. If you are absent on the day a test is given please present hospital, funeral or traffic verification next class. There is no need to call or e-mail me.
3. If you are absent on the day of your paper presentation please present hospital, funeral or traffic verification next class. There is no need to call or e-mail me.
4. Sign the attendance notebook before end of each class (because) 90% attendance may assist students who are 1 or 2 pts always from the next letter grade.
5. Order of presentation of lecture topics may change due to student ability, weather, illnesses, equipment availability.
6. If you are on academic probation, take this syllabus to the learning center and your academic advisor for guidance on your enrollment in this class.
7. Defer questions regarding your test results and questions that may disrupt completion of lecture exercises to the privacy of my office (hours).
8. Class room decorum suggest you call me "professor" rather than Edwin.
9. Departmental policy on student issues is (1) discuss with instructor (2) discuss with chairperson (3) discuss with Dean.
10. Students Will Need To Purchase A Large Black Notebook and a Set of Section Dividers For It

11. Please Note: The Chronicle of Higher Education indicates that students need two hours study time for each hour of lecture time

Feelings

There are stages of the group process: this will be in effect during the 'process' of completing the class
Verbal and nonverbal cultural differences may cause anxiety
Student / Teacher power differences may cause anxiety
Variations in student abilities and needs may cause anxiety
Inadequate preparation for exams / insufficient study time may cause anxiety
Desire to graduate on time and with a certain grade point average may cause anxiety

Names of Videos Presented in Class

Legacies of Social Change
Adoptions & Safe Families Act (ASFA)
Welfare Reform
Medicare and Medicaid at 40

Please Note: The Chronicle of Higher Education indicates that students need two hours study time for each hour of lecture time.
### Class Contract

**x = Yes**

**Graduate Student Agrees To:**

<table>
<thead>
<tr>
<th>Student Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attend Class</strong></td>
<td>28 Points (Claimed by Signing the Sign-in Sheet)</td>
</tr>
<tr>
<td>Attend Conferences</td>
<td></td>
</tr>
<tr>
<td>Attend Celebrations - e.g. Holidays</td>
<td></td>
</tr>
<tr>
<td>Attend Events - e.g. dance performances, concerts, museum openings</td>
<td></td>
</tr>
<tr>
<td>Abstract(s) - of articles/books on class topics / Bibliographies / Biographies</td>
<td></td>
</tr>
<tr>
<td>Book Review(s)</td>
<td></td>
</tr>
<tr>
<td><strong>Class Participation</strong></td>
<td></td>
</tr>
<tr>
<td>Discuss / Debate issues &amp; Topics Relevant to the Class</td>
<td></td>
</tr>
<tr>
<td>Diary/Journals of Reflections (see &quot;Reflections section below&quot;)</td>
<td></td>
</tr>
<tr>
<td>Exams / Tests - in Class - Open Book</td>
<td></td>
</tr>
<tr>
<td>Exams / Tests - in Class - Closed Book (Multiple Choice)</td>
<td></td>
</tr>
<tr>
<td>Exams / Tests - in Class - Essays</td>
<td></td>
</tr>
<tr>
<td>Exam / Essays - Take Home - Open Book</td>
<td></td>
</tr>
<tr>
<td>Exercise - in Class - To attend to and absorb lecture material presented</td>
<td></td>
</tr>
<tr>
<td>Field Trips to Legislation</td>
<td></td>
</tr>
<tr>
<td><strong>Interview(s) With Legislators</strong></td>
<td></td>
</tr>
<tr>
<td>Integration / Incorporation of lecture material into work / campus life</td>
<td></td>
</tr>
<tr>
<td>Literature Review(s) of research</td>
<td></td>
</tr>
<tr>
<td>Media - Talk to Editorial Managers at Newspapers / Talk to Announcers / Writers at Television News Stations</td>
<td></td>
</tr>
<tr>
<td>Oral Presentation Non Graded</td>
<td></td>
</tr>
<tr>
<td>Oral Presentation (Graded by the Instructor)</td>
<td></td>
</tr>
<tr>
<td><strong>(Pop) Quizzes - in Class</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Question &amp; Answer Session - Of Professor - or - Other Students</strong></td>
<td></td>
</tr>
<tr>
<td>Reflection on Reading Material</td>
<td></td>
</tr>
<tr>
<td>Reflections / Reactions to Videos</td>
<td></td>
</tr>
<tr>
<td><strong>Reflections / Reactions to a Newspaper Article and a Television News Item (Involving cultural conflict)</strong></td>
<td></td>
</tr>
<tr>
<td>Reflections / Reactions to Class Discussions / Class Group Dynamics</td>
<td></td>
</tr>
<tr>
<td>Reflections / Reactions to Readings (Selected Poems) / Music Songs</td>
<td></td>
</tr>
<tr>
<td>Research Paper - Outline</td>
<td></td>
</tr>
<tr>
<td>Research Paper</td>
<td>20 Points (Claimed by Submitting Presentation Handouts)</td>
</tr>
<tr>
<td><strong>Self Disclosure (self awareness - feelings, insights, revelations, learning, frustration, change)</strong></td>
<td></td>
</tr>
<tr>
<td>Speakers</td>
<td></td>
</tr>
</tbody>
</table>

*The Points That Can Be Claimed for Each Activity Appear On The Right-Hand Side of This Page.
A Student Who Attends All Classes and Submits All Assignments and Earns All Potential Points Scores 100 Points

### Professor Agrees To:

**Before Class**
- Create a Syllabus
- Create PowerPoint - Lesson Plans - Handouts
- Order Text/Work Books
- Preview / Reserve Videos
- Reserve / Get TV Monitor - Video Machine
- Reserve / Get Overhead Projector / Screen
- Create Homework
- Compile / Copy Readings
- Librarian - Library Reserve
- Librarian - Load Lecture Notes on Web For Students
- Create Tests

**During Class**
- Present Lecture / Put Notes in Library
- Collect Attendance
- Present Relevant Teaching Videos in Classroom
- Give / Grade Exams
- Attend Classes / Be Punctual
- Answer Questions
- Use Overhead Projector
- Grade Homework & Other Assignments
- Review / Sign Administrative Roster
- Address Student Concerns / Questions
- Read Papers Before They Are Due
- Review Presentation Handouts Before They Are Due

**After Class**
- Grade Exams
- Tabulate Points Accumulated
- Submit Grades to Administration

---

| Student Signature | Date: _______ / _______ / _______ |
**Textbook - Required Reading**


---

**Additional - Not Required Reading**

**The Emergence of the Welfare State**


Howard N. Rabinowitz (1974). From exclusion to segregation: Health and welfare services for Southern Blacks, 1865-1890, Social Service Review 48, 327-


Gwendolyn Mink (1990). The lady and the tramp: Gender, race, and the origins of the American welfare state, in Linda Gordon, ed., Women, the state, and welfare (pp. 92-122), Madison: University of Wisconsin Press.


War on Poverty


Retreat From Social Welfare


War on Public Welfare

David Ellwood, Welfare reform and the Clinton Administration, Social Justice 21(1), 50-59.


Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of ____________

2. Course prefix, number and complete title: BUSH 636: Contract and Grant Management in the Public and Nonprofit Sectors

3. Course description (not more than 50 words) ________

4. Prerequisite(s) Graduate Classification ________ Cross-listed with ________

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

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

7. Has this course been taught as a 489/689? □ Yes □ No
   If yes, how many times? ________ Indicate the number of students enrolled for each academic period it was taught. Will be taught as a 689 in Fall 07 / Projected enrollment: 15

8. 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)

MPSA (Master of Public Service and Administration Program)

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

10. Prefix  Course #  Title (exclude punctuation)  
    ____________  ____________  BUSH 636 GRNT & CONRCT MGMT PUBL

    Lect. Lab SCH Subject Matter Content Code  Admin. Unit  Acad. Year  FICE Code
    0 3 0 0 3 5 2 0 2 0 6 0 0 1 6

Do not complete shaded area.

Approval recommended by:  
Head of Department ____________ Date  ____________  
Chair, College Review Committee ____________ Date  ____________

Head of Department (if cross-listed course) Date  ____________

Submitted to Coordinating Board by:  
Director of Academic Support Services  
Date  ____________  
Effective Date  ____________

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-5/94
Prof: Scott Robinson  
BUSH 636  
Contract and Grant Management for the Public and Nonprofit Sector  
Office: TBA  
E-mail: TBA  
Office Hours: TBA  

Course Objectives:

In the public sector, work traditionally done by government employees is increasingly being done by third parties (including nonprofit organizations and private contractors). Some have argued that this practice has led to a “hollow state” wherein government agencies are called upon to “steer” programs more than to provide services directly.

This course examines the use of contracts and grants in providing social services. First, the course examines the theoretical background of government contracts and grants. This portion of the class will examine the nature of “contracting out” as a tool of policymaking. Second, the course will cover material related to the management of third-party services from the perspectives of the government agency, a private sector contractor, and a nonprofit organization. Here the course will discuss traditional project management skills and how they are applicable to the carrying out of grants and contracts. Finally, the course will discuss the skills needed to write effective grant and contract proposals.

Textbooks:


Examination Schedule and Grading:

There are two take-home exams (due on 10/4 and 11/15 – worth 30% each) and a term paper (worth 40%).

Attendance:

Attendance is expected as part of this course. There is no grade associated with this basic expectation. If a student must miss class, they should contact another student to get the notes for the class and any announcements. Missing a class wherein an assignment is due is discussed under “late assignments.”
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 Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor/

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

Late Assignments:

Allowing some students to turn in assignments late is not fair to students who completed the task in the assigned period of time. For mid-semester take home assignments, work turned in within one week late will be penalized 10 points (out of 100). Work turned in between one and two weeks late will be penalized 20 points. Work will not be accepted more than two weeks late. Work due at the end of the semester (that is, due during the last week of classes or exam week) will not be accepted late due to the grading deadline.

Schedule of Topics and Readings:

The assignments will draw from all of the required reading as well as the materials discussed in class. Do not assume that because a point from a reading was not explored in class one may ignore that material. Any point from the class discussion OR the reading is fair material to expect you to have mastered for the assignments.

I reserve the right to revise the syllabus at any time (for example, by adding or removing reading material, changing the daily topics, or moving back the tests [but never forward]). I will announce any changes ahead of time in class.
8/28 Class Introduction

8/30 Introduction to Third Party Governance


9/4 New Public Management and the National Performance Review


9/6 Economics of Third Party Governance


9/11 Collaboration and Administrative Networks


9/13 Cross-Sector Collaboration


9/18 The Hollow State


9/20 Accountability in Networks


9/25 Performance and Networks


9/27 Future Directions for Network Research


*Take home exam 1 assigned* 10/2 Introduction to Project Management

K 1-2
10/4 Organizational Structures and Staffing
K 3-4

*Take home exam 1 due* 10/9 The Role of the Project Manager
K 5-6

10/11 Miscellaneous Issues: Conflict, Performance, Ethics
K 7-8

10/16 Dealing with Executives
K 10

10/18 Variables and the Planning Process
K 9,11

10/23 Scheduling and Project Graphics
K 12-13

10/25 Pricing and Costs
K 14-15

10/30 Trade-offs and Risks
K 16-17

11/1 Learning and Procurement Cycles
K 18-19

11/6 Quality Management and Critical Chains
K 20,22

11/8 Project Office and Recent Developments
K 21,23

*Take home exam #2 assigned*

11/13 – Intro to Proposal Writing

QN 1-5
11/15 – Writing Management Plans

QN 6-10
*Take home exam #2 due*

11/20 – Evaluation for Grants

QN 11-13

11/22 – Thanksgiving
11/27 – Evaluation for Grants II

QN 14-15

11/29 – Dissemination Strategies

QN 16-17

12/4 – Class Conclusion
12/11 – Term Paper Due
Texas A&M University
Departmental Request for a New Course
Undergraduate - Graduate - Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Chemistry

2. Course prefix, number and complete title: CHEM 658 Molecular Modeling

3. Course description (not more than 50 words) An introduction to molecular modeling with an emphasis on quantum level calculations. Lectures will cover the basic theory behind the calculations and lab work will focus on the practical application of modern computational chemistry codes.

4. Prerequisite(s) Graduate classification or approval of instructor

5. Is this a variable credit course? ☐ Yes ☐ No

6. Is this a repeatable course? ☐ Yes ☐ No

7. Has this course been taught as a 489/689? ☐ Yes ☐ No

8. 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)

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

10. Prefix Course # Title (exclude punctuation) CHEM 658 Molecular Modeling

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>01</td>
<td>02</td>
<td></td>
<td></td>
<td></td>
<td>003632</td>
</tr>
</tbody>
</table>

Do not complete shaded area.

Approval recommended by:

M.F. Rayner 4/19/07
Head of Department Date

Chair, College Review Committee 4/23/07

Dean of College 4/23/07

Submitted to Coordinating Board by:

Dean of College Date

Director of Academic Support Services Date

Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-504 Sandra D. Laws
CHEMISTRY MOLECULAR MODELING

Instructor: Dr. Lisa M. Pérez
            Office: Chemistry 2109
            Hours: M-F 8:00-5:00
            e-mail: mouse@mail.chem.tamu.edu

Class web page: http://www.chem.tamu.edu/LMS/chemYYY

Class Schedule: 15 1-hour lectures and 15 3-hour labs (2 credits).

Suggested Text: "Exploring Chemistry with Electronic Structure Methods"
                James B. Foresman and Æleen Frisch (Gaussian, Inc 1996)
                This text can be purchase at
                http://www.gaussian.com/allbooks.htm

Course Description: An introduction to molecular modeling with an emphasis on
                    quantum level calculations. Lectures will cover the basic theory
                    behind the calculations and lab work will focus on the practical
                    application of modern computational chemistry codes.

Prerequisites: Graduate classification or approval of instructor.

Grading: Completion of 15 out of 15 assignments (A)
          Completion of 14 out of 15 assignments (B)
          Completion of 13 out of 15 assignments (C)
          Completion of 12 out of 15 assignments (D)
          Completion of <12 out of 15 assignments (F)

ADA Policy: The Americans with Disabilities Act (ADA) is a federal anti-
            discrimination statute that provides comprehensive civil rights protection
            for persons with disabilities. Among other things, the legislation requires
            that all students with disabilities be guaranteed a learning environment
            that provides for reasonable accommodation of their disabilities. If you
            believe you have a disability requiring an accommodation, please
            contact the Department of Student Life, Services for Students with
            Disabilities, in Cain Hall or call 845-1637.

Academic Integrity: "An aggie does not lie, cheat, or steal or tolerate those who do."
                    Please see the Honor Council Rules and Procedures on the web at
                    http://www.tamu.edu/aggiehonor
Course outline:

Theories covered:
- Molecular Mechanics
- Semi-Empirical
  - AM1
  - PM3
  - MNDO
- Ab Initio
  - Hartree-Fock (HF)
  - Moller-Plesset (MP)
  - Coupled-Cluster (CC)
  - Configuration Interaction (CI)
  - Multi-Reference
    - Complete Active Space Self Consistent Field (CASSCF)
- Density Functional Theory

Types of calculations covered:
- Single Point Energies
- Geometry Optimization
  - reactants
  - products
  - intermediates
  - transition states
- Frequency Calculations
- Intrinsic Reaction Coordinate (IRC)
- Excited state
- Solvation models
- Basis Set Superposition Error (BSSE)
- QM/MM Calculations
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Civil Engineering.

2. Course prefix, number and complete title: CVEN 631 System Identification and Nondestructive Damage Evaluation of Civil Engineering Structures

3. Course description (not more than 50 words): Invasive assessment of civil structures; concepts of systems identification, damage detection, and safety evaluation; estimation of mass, damping, and stiffness properties; determination of load capacity and useful life

4. Prerequisite(s): Graduate Status in CVEN, AERO or MEEN
   Cross-listed with: None
   Cross-listed courses require the signatures of both department heads.

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

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

7. Has this course been taught as 489/689? □ Yes □ No. If yes, how many times? 3. Indicate the number of students enrolled for each academic period it was taught. 7-10

8. 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)

9. M.S., Ph.D. in CVEN, AERO, MEEN

10. Prefix | Course # | Title (exclude punctuation)
     _____ | CVEN 631 | System Identification and Nondestructive Damage Evaluation of Civil Engineering Structures

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
<td>01408030006</td>
<td>CVEN08</td>
<td>09</td>
<td>003632</td>
</tr>
</tbody>
</table>

Approval recommended by:

Head of Department: Date

Chair, College Review Committee: Date

Dean of College: Date

Submitted to Coordinating Board by:

Director of Academic Support Services: Date

Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-5/04
CVEN 631

SYSTEM IDENTIFICATION AND NONDESTRUCTIVE DAMAGE
EVALUATION OF CIVIL ENGINEERING STRUCTURES

Instructor:

Prof. Norris Stubbs, P.E., Eng.Sc.D., Wiley Professor
Office: 705L, CE/TTI
Phone: 845-2449
e-mail: nstubbs@civil.tamu.edu
Office Hours: MW 2-4 or by appointment

Course Description:

- Concepts and methods of system identification and damage detection in civil engineering structures.
- Methods of determining the location of damage in civil engineering structures.
- Methods of quantifying the extent of damage at a specific location.
- Method of extracting the structural parameters using modal parameters.
- Methods of extracting the structural parameters using output-only measurements.
- Methods of determining the safety of a structure using the structural parameters obtained via nondestructive testing means.
- Methods of determining the useful life of a structure on the basis of structural parameter determination.

Primary Educational outcomes of the Course:

At the completion of this course students should be able to:

- Define, describe and apply the basic approaches of nondestructive damage detection to simple structural elements and structural systems.
- Define, describe and apply the basic approaches of nondestructive damage localization to simple structural elements and structural systems.
- Define, describe and apply the basic approaches of nondestructive damage severity estimation to simple structural elements and structural systems.
- Describe and apply the basic approaches to the nondestructive evaluation of structural parameter estimation in systems using modal analysis.
- Describe and apply the basic approaches to the nondestructive evaluation of structural parameter estimation in systems using output-only analysis methods.
- Describe and apply the state-of-the-art approaches for determining the failure probability of simple and complex structural systems.
- Describe and apply the state-of-the-art approaches for determining the useful life of simple and complex structural systems.
Course Outline:

Topic 1: - Damage Detection (2 weeks): Review of Statics and Dynamics of Linear Structural Systems; Damage Detection Using Time Domain Approaches; Damage Detection Using Frequency Domain Approaches; Damage Detection Using Static Analysis Approaches; Applications of these Approaches to Structural Elements and Systems.

Topic 2: - Nondestructive Damage Localization (2 weeks): Review of Deterministic Methods in Pattern Recognition; Review of Statistical Methods in Pattern Recognition; Review of the Neural Network Approach for Classification; Sensors and Sensor Layouts Used in Damage Localization; Damage Localization Methods Based on Changes in Modal Flexibilities; Damage Localization Methods Based on the Use of Neural Networks; Damage Localization Methods Based on Pattern Recognition; Damage Localization Methods Based on Changes in Curvature; Damage Localization Methods Based on Changes in Stiffness; The Optimal Placement of Sensors; Applications to Structural Elements and Structural Systems; Relative Performance of Existing Damage Localization Algorithms.

Topic 3: - Damage Severity Estimation (2 weeks): The Concept of Damage Severity as Stiffness Loss; Relationship of Stiffness Loss to Concepts in Fracture Mechanics and Continuum Damage Mechanics; Frequency-Stiffness Sensitivity Approaches to Estimating Damage Severity in Structural Elements; Severity Estimation Using the Updating of Finite Element Models; Severity Estimation Using Neural Networks; Severity Estimation Using the Damage Index Method; Application to Structural Elements and Structural Systems.


Topic 6: - Structural Systems Safety Evaluation Using Parameters Derived from Nondestructive Damage Evaluation (2 weeks): Failure Probabilities of Complex Systems; System Models of Structural Systems; Assignment of Load and Resistance
Values for Structural Elements; Models to Estimate the Failure Probability of Structures; Application to Structural Elements and Structural Systems.

Topic 7: - The Determination of the Useful Life of a Structure Using Results of Nondestructive Damage Evaluation (2 weeks); Summary of the Concept of Useful Life from Various Subdisciplines of Engineering; Approaches to Estimating the Useful Life of Such Structures as Bridges and Buildings; Application to Structural Elements and Structural Systems.

Lectures: MWF 9:10-10:00 104 CE

Prerequisites: Graduate student status in CVEN, MEEN, AERO

Required Text: None

Suggested References:


Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
<tr>
<td>Final Project 5-10 page paper &amp; presentation</td>
<td>20%</td>
</tr>
</tbody>
</table>

Academic Integrity Statement:

"An Aggie does not lie, cheat, or steal or tolerate those who do." Students are expected to understand and abide by the Aggie Honor Code presented on the web at: http://www.tamu.edu/aggiehonor. No form of scholastic misconduct will be tolerated. Academic misconduct includes cheating, fabrication, falsification, multiple submissions, plagiarism, complicity, etc. These are more fully defined in the above web site. Violations will be handled in accordance with the Aggie Honor System Process described on the web site.

American with Disabilities Act:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statue that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an
accommodation, please contact the Department of Student life, Services for Students with Disabilities in Room 126 of the Koldus Building, or call 845-1637.
Texas A&M University

Departmental Request for a New Course

Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of

2. Course prefix, number and complete title: ECEN 690, Switching Power Supplies

3. Course description (not more than 50 words): This course deals with operating principles of switching power supplies. Analysis and in-depth design of several types of switching regulators including buck, boost, forward, flyback, half and full bridge switching regulator analysis will be examined. Elements of transformer and magnetic design will be introduced. State space analysis and feedback loop stabilization principles will be explored. Application of these in the industry will be explained.

4. Prerequisite(s): ELEN 438 or equivalent, approval of instructor

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

6. Is this a repeatable course? □ Yes □ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? □ Yes □ No

7. Has this course been taught as a 489/689? □ Yes □ No If yes, how many times? 3 Indicate the number of students enrolled for each academic period it was taught. 1995: 15 students, 1997: 25 students, 2004: 23 students

8. 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., MENG, Ph.D. in electrical and computer engineering

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

10. Prefix Course # Title (exclude punctuation)

   | ECEN | 690 | SWITCHING POWER SUPPLIES |

   Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
   | 030000 | 3 | 1410010006 | 093608-09 | 003632 |

   Do not complete shaded area.

Approval recommended by:

Head of Department Date

Chair, College Review Committee Date

Dean of College Date

Submitted to Coordinating Board by:

Director of Academic Support Services Date

Effective Date APR 17, 2007

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

GAR/AS-5/04
Switching Power Supplies

Professor: Dr. P. Enjeti
Rm. 216K, ZEC

Kluwer Academic Publisher
Chapter Presentation slides are at: http://ece.colorado.edu/~pwrelect/book/slides/slidedir.html

Recommended reading: (a) "Chapter 12: High efficiency low voltage DC-DC Conversion for portable applications", Book: Low-voltage/Low-power integrated circuits & systems, Edited by Sanchez-Sinencio, IEEE Press (b) DC-DC Switching regulator analysis, Dan Mitchell, McGraw-Hill

Linear and mixed-signal integrated circuits (ICs) include data converters, interface circuits, microprocessor supervisors, operational amplifiers, power supplies, multiplexers, switches, battery chargers, battery management circuits, RF wireless circuits, fiber optic transceivers, sensors, and voltage references. It is clear that power management (a $13B global market soon growing to $70B within a decade) plays a crucial role in the technology development of these systems. Current trends in consumer electronics are demanding progressively lower supply voltages (~1V) due to the unprecedented growth and use of wireless appliances. Numerous consumer electronics and portable devices, such as laptop computers, flat screen monitors/TV's and personal communication devices (cell phones and PDAs) require a wide variety of AC to DC power supplies for battery charging purposes. Over 2.5 billion AC/DC power supplies are currently in use in the United States alone. About 6 to 10 billion are in use worldwide. While the best power supplies are more than 90% efficient, some are only 20 to 40% efficient, wasting the majority of the electricity that passes through them. As a result, today's power supplies consume at least 2% of all U.S. electricity production. More efficient power supply designs could cut that usage in half, saving nearly $3 billion and about 24 million tons of carbon dioxide emissions per year.

Course Objective

This course deals with operating principles of switching power supplies. Analysis and in-depth design of several types of switching regulators including buck, boost, forward, flyback, half and full bridge switching regulator analysis will be examined. Elements of transformer and magnetic design will be introduced. Principles of zero voltage and zero current switching along with state space analysis, feedback loop stabilization principles will be explored. Application of these systems in the industry will be detailed.
Syllabus

Week

#1  Introduction, linear / switching regulator ancestors, buck, boost forward, flyback converter topologies (3hr)

#2  Detailed analysis of buck, boost, forward converters continuous and discontinuous operation, design relations - output filter selection, switching loss calculation. (3hr)

#3  Detailed analysis of flyback, push-pull converter topologies, design relations - output filter selection, switching loss calculation. (3hr)

#4  Detailed analysis of half, full bridge converter topologies, design relations - output filter selection, switching loss calculation. (3hr)

#5  Detailed analysis of current-mode and current fed converter topologies, design relations. (3hr)

#6  Magnetic and Circuit design aspects: core material, geometry peak flux density etc. (3hr)

#7  Magnetic and Circuit design aspects: Transformer temperature rise aspects, high frequency losses, skin effect, proximity effect (3hs)

#8  State space averaging analysis of switching power supplies, small signal approximation, illustrative problems (3hs)

#9  Feedback loop stabilization: design example- stabilizing a forward converter, error amplifier design (3hr)

#10 Feedback loop stabilization: design example- stabilizing a discontinuous mode flyback converter, error amplifier design (3hr)

#11 Case study of a low power practical switching power supply (3hs)

#12 Case study of a high power practical switching power supply (3hr)

#13 Project discussion (3hr)

#15 Project discussion (3hr)
Course Schedule:

Aug 31  Chapter 1 - Introduction, linear / switching regulators
Sep  2  Chapter 2 - DC-DC Converter Analysis (buck type switching converter)
Sep  7  Chapter 2 - DC-DC Converter Analysis (boost type switching converter); Hw # 1
Sep  9  Chapter 2 - DC-DC Converter Analysis (cuk type switching converter)
Sep 14  Chapter 3 - Equivalent circuits, loses and efficiency calculations
Sep 16  Chapter 3 - Equivalent circuits, loses and efficiency calculations, design examples
Sep 21  Chapter 4 - Switch Realization: Diode, MOSFET, IGBT
Sep 23  Chapter 4 - Switch Realization: Switching losses, Examples, Hw # 2
Sep 28  Chapter 5 - Discontinuous conduction mode analysis
Sep 30  Exam - 1
Oct  5  No Class, Work on HW # 2 Design Problem
Oct  7  Chapter 5 - Discontinuous conduction mode analysis
Oct 12  Chapter 6 - Converter circuits: Section 6.2 and 6.3.4 (Flyback Converter)
Oct 14  Section 6.3.2 Forward Converter
Oct 19  Section 6.3.3 Push-Pull Converter
Oct 21  Section 6.3.1 Full bridge & Half bridge Isolated converters
Oct 26  Section 6.3.5 Boost derived isolated converters
Oct 28  Section 6.4 Converter evaluation and design
Nov  2  Chapter 20 Soft Switching, ZCS quasi-resonant switching cell
Nov  4  Section 20.3, 20.3.1 ZVS quasi-resonant switch
Nov  9  Section 20.4.1 Zero voltage transition full bridge converter
Nov 11  Chapter 10 Input filter design: Buck converter example
Nov 16  Chapter 7 AC equivalent circuit modeling, small signal models
Nov 23  Chapter 7 AC equivalent circuit modeling, small signal models
Nov 30  Chapter 8 Converter transfer functions
Dec  2  Chapter 8 Converter transfer functions
Dec  7  Exam - 2
Dec 14  Project presentations

Grading:

Quiz/Exam : 50%
Project : 50%
Course Grade : 100%
Americans with Disabilities Act (ADA) Policy Statement

The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Room 126 of the Koldus Building or call 845-1637.

Academic Dishonesty: This is a politically correct word for "cheating" and it will not be tolerated in any form. Examples include (but are not limited to): looking at a fellow students work during an exam, discussing the exam material with anyone (except the instructor) during the exam, bringing prohibited material into an exam (e.g., storing formulas in your calculator), attempting to access exam materials before the time of the exam, copying homework solutions from other students, or from solutions manuals, using someone else's computer programs to do your homework, etc. Any violations can result in the student receiving a grade of "F" in the course. Those with a previous history also run the risk of being expelled from the university.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Finance

2. Course prefix, number and complete title FINC669: Titans of Investing

3. Course description (not more than 50 words) Readings from the most influential theorists and practitioners of 20th and 21st century investing. Case studies and portfolio sector exercises in an institutional context, based on detailed assessment of global investment risks.

4. Prerequisite(s) Approval of Instructor Cross-listed with N/A

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

6. Is this a repeatable course? ☐ Yes ☐ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? ☐ Yes ☐ No

7. Has this course been taught as a 489/689? ☐ Yes ☐ No If yes, how many times? 1 Indicate the number of students enrolled for each academic period it was taught. 07A-4; 07C-5+

8. 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) MS - Finance

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

10. Prefix Course # Title (exclude punctuation) FINC 6 6 9 T I T A N S O F I N V E S T I N G

<table>
<thead>
<tr>
<th>Lect</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
<td>03</td>
<td></td>
<td></td>
<td>0 0 3 6 3 2</td>
</tr>
</tbody>
</table>

Do not complete shaded area.

Approval recommended by:

Head of Department Date 5/13/07

Chair, College Review Committee Date 7/12/07

Dean of College Date 7/12/07

Submitted to Coordinating Board by:

Director of Academic Support Services Date

Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS5-04
FINANCE 427/669:  
TITANS OF INVESTING  

Spring 2008—490 Wehner—Thursdays 5:30PM-9:00PM  
*Instructor Office Hours TBA*  

Prof. L. R. Martinvale  
Assistant Department Head  
Department of Finance  
357 Wehner  
979-845-4859  
LMartindale@mays.tamu.edu  

Mr. Britt Harris  
Executive Professor of Finance;  
Chief Investment Officer,  
Texas Teacher Retirement System  
Britt.Harris@trs.state.tx.us

**Preliminary**  *Your first assignment is to read this syllabus.* By remaining enrolled past “free drop” you agree to the provisions of this syllabus. Those provisions incorporate by reference all applicable University rules, which ultimately control the interpretation of this syllabus. Should an amendment to this syllabus prove necessary or advisable, you will receive reasonable notice.

The Americans with Disabilities Act (ADA) is a federal law providing comprehensive civil rights protection for persons with disabilities. Among other things, the ADA guarantees all students with disabilities a learning environment that reasonably accommodates their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Services for Students with Disabilities: Cain Hall B118; 845-1637.

Other than water, food and drink are prohibited in the classroom. Tobacco products may be used only in designated areas outside the building.

**Aggie Honor Code**  
An Aggie does not lie, cheat, or steal or tolerate those who do. Upon accepting admission to Texas A&M, you assumed a commitment to uphold the Honor Code, accept responsibility for learning, and follow the philosophy and rules of the Honor System. Ignorance does not excuse you: [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor). Submission of any work in this course is conclusively presumed to amount to your oath or affirmation as follows: “On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”

**Course Summary**  
This course surveys the “Titans”—the most influential figures—of investment theory, philosophy, and performance from the early 20th century through the present. Readings, portfolio sector exercises, and presentations are complementary but *independent* components, *none of which may be prudently neglected*. To furnish context for this work, all students are required to assess global investing conditions, weekly and in detail. These conditions include but are not limited to benchmark interest rates, performance of major financial markets, key macroeconomic indicators, financial headlines, and major political developments. Each student is also required to construct and periodically rebalance a theoretical investment portfolio, as explained below.

**Prerequisites**  
Upper-division or graduate classification in Mays Business School; approval of instructors.

**Materials**  
*Capital Ideas: The Improbable Origins of Modern Wall Street* by Peter L. Bernstein  
The “Titans of Investing” readings packet (see below).  
Student subscriptions to *Barrons* and *The Wall Street Journal*.

**Grading System**  
A – at least 360 of 400 available points as allocated below  
B – at least 320  
C – at least 280  
D – at least 240  
F – below 240
Graded Work

Class preparation and participation are worth up to 100 points—40 points assigned by average peer evaluation and 60 points assigned by instructor(s). Each class will begin with a roundtable assessment of global investing conditions, followed by each student’s detailed accounting for the “alpha” and “beta” performance of his or her theoretical portfolio for the preceding week. The class will then discuss the week’s readings. To receive full credit for preparation and participation, a student must make consistent and worthwhile contributions to all these discussions.

Assigned presentations are worth up to 100 points. Students will accept, in pairs or threes, joint responsibility for a seminar-style presentation every other week. Likely topics are—

- Bubbles and Panics—18th & 19th Centuries
- Bubbles and Panics—20th & 21st Centuries
- Comparative Investment Policies—Equity
- Comparative Investment Policies—Fixed Income
- The Flow of Funds Environment
- Hedging v. Speculation

Students or instructors may propose alternate topics, especially if current events so warrant.

Performance of the student’s theoretical portfolio is worth up to 100 points (see below). The top performance is worth 100 points, the second-place performance 95 points, third place 90 points, fourth place 85 points, and fifth place 80 points. Among the remaining students, those attaining or exceeding the average performance will earn 75 points and those not attaining at least the average performance will earn 65 points.

The final exam is worth up to 100 points.

For each unexcused absence, 20 points will be deducted from the student’s point total. Absences will be excused only upon timely and satisfactory documentation of a university-excused absence, as defined under a strict construction of Chapter 7 of the Student Rules.

“Titans of Investing” Readings Packet

Each student must obtain and become familiar with the “Titans of Investing” Readings Packet before the first class session. The readings comprise briefs, selections, and exercises derived from influential writings by or about the most significant investment theorists and the most successful investors of the 20th and 21st centuries.

Global Market Awareness

Each student must cultivate the intellectual habit of assessing global investing conditions, and remain constantly prepared to “recite” on them. These conditions include but are not limited to benchmark interest rates, performance of major stock and bond markets, key macroeconomic indicators, financial headlines, and major political developments.

Theoretical Portfolios

Each student will construct and periodically rebalance a theoretical investment portfolio, allocated not among particular securities but among investment sectors, such as “emerging market debt”, “large-cap stocks”, “real estate”, etc. Each student will account weekly for “alpha” and “beta” performance of his or her portfolio against relevant benchmarks.
Schedule

Week 1  
Readings for Week 1:  
Bernstein’s *Capital Ideas*  
Packet materials on Fama, Markowitz, Sharpe, & Thaler  
Get-acquainted and team-building exercises  
Modeling of ideal discussions and presentations by instructors and former participants  
Lecture on key historical developments in theoretical finance  
Lecture on “alpha” and “beta” portfolio coefficients  
Identification of available investment sectors for theoretical portfolios  
Assignment and scheduling of presentations for weeks 3, 5, 7, 9, & 11

Week 2  
Readings for Week 2: Packet materials on Buffet, Graham, & Neff  
Weekly review of global investing conditions  
Disclosure and discussion of opening theoretical portfolios  
Discussion of readings

Week 3  
Readings for Week 3: Packet materials on Chandler, Lowenstein, & Stewart  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of readings  
Presentation: Bubbles and Panics—18th & 19th Centuries

Week 4  
Readings for Week 4: Packet materials on Biggs & Yergin  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of readings

Week 5  
Readings for Week 5: None  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Presentation: Bubbles and Panics—20th & 21st Centuries

Week 6  
Readings for Week 6: Packet materials on Litterman, Siegel & Surowiecki  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of readings

Week 7  
Readings for Week 7: Packet materials on Friedman (Milton), Keynes, & Smith  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of readings  
Presentation: The Flow of Funds Environment

Week 8  
Readings for Week 8: Packet materials on Friedman (Thomas) & Litterman  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of readings

Week 9  
Readings for Week 9: None  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Presentation: Hedging v. Speculation


33 of 50
Week 10  Readings for Week 10: Packet materials on Siegel  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of readings  

Week 11  Readings for Week 11: Packet materials on Ellis and Swenson  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of Readings  
Presentation: Comparative Investment Policies—Equity  

Week 12  Readings for Week 12: None  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Presentation: Comparative Investment Policies—Fixed Income  

Week 13  Readings for Week 13: Packet materials on Ellis and Swenson  
Weekly review of global investing conditions  
Disclosure and discussion of theoretical portfolio performance  
Discussion of Readings  
Presentation: Comparative Investment Policies—Equity  

Week 14  Readings for Week 14: Packet materials on Franklin & Melville  
Guest lecturer  
Final ranking of theoretical portfolios  

Final examination TBA according to University, Business School, & departmental policy.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of: Petroleum Engineering

2. Course prefix, number and complete title PETE 635 Underbalanced and Managed Pressure Drilling

3. Course description (not more than 50 words) This course provides an introduction and application of techniques utilized in underbalanced and managed pressure drilling; includes equipment, types of drilling fluids used (air, mist foam, etc.), flow drilling, mud cap drilling and hydraulics calculations.

4. Prerequisite(s) Graduate Classification Cross-listed with Cross-listed courses require the signatures of both department heads.

5. Is this a variable credit course? ☐ Yes ☑ No If yes, from_____ to _____.

6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No

7. Has this course been taught as a 489/689? ☐ Yes ☑ No If yes, how many times? _____ Indicate the number of students enrolled for each academic period it was taught. 03C (10 enrolled) and 06C (05 enrolled as of 7/8/08)

8. 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. or Ph.D. students in petroleum engineering

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

10. Prefix | Course # | Title (exclude punctuation)

     PETE 635 UNDERBALANCED DRILLING

     Lect. | Lab | SCH | Subject Matter | Content Code | Admin. Unit | Acad. Year | FICE Code
     0300031425010006221007-08003632

Do not complete shaded area.

Approval recommended by:

Head of Department Date

Head of Department (if cross-listed course) Date

Submitted to Coordinating Board by:

Dean of College Date

Director of Academic Support Services Date

Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.
OAR/AS-504

35 of 50
Number and Name of Course: PETE 635 Underbalanced and Managed Pressure Drilling

Hours: Theory 3 Practice 0 Total 3 Credits 3

Prerequisites: Graduate enrollment or approval of instructor

Curricula Requiring this course: []

1. [] 2. [] 3. []

Description of Course: (Concise Statement of purpose of design) This course provides an introduction and application of techniques utilized in underbalanced and managed pressure drilling. Topics covered are equipment, types of drilling fluids used (air, mist foam, etc.), flow drilling, mud cap drilling and hydraulics calculations.

Text Materials:

References:
- “Mudlite Air/Mist/Foam Hysraulics Model”, Maurer Engineering Inc., Houston, 1988

Course Outline: (by major topics, and approximate time for each topic)

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Selecting an Appropriate Candidate and Technique: Geophysical and Geological Aspects, Reservoir Characteristics, and Feasibility. Wellbore construction constraints, and fluid selection. Economics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>4</td>
<td>Well Engineering: Circulation programs and calculations. Wellhead, casing, and completion design. Bit selection, Underbalanced perforating, and drillstring design</td>
<td>6 hrs</td>
</tr>
<tr>
<td>5</td>
<td>Special Considerations: Safety, regulatory requirements, and environmental issues. Directional, percussion, and high pressure drilling. Cementing, formation evaluation</td>
<td>4 hrs</td>
</tr>
<tr>
<td>6</td>
<td>Blowout Preventer Equipment: Primary control, rotating heads, diverters, and RBOPs. UBD well control procedures. Sour wells and other special well control considerations</td>
<td>6 hrs</td>
</tr>
<tr>
<td>7</td>
<td>Risk Management for Underbalanced Operations: Risk identification, analysis, and mitigation</td>
<td>4 hrs</td>
</tr>
<tr>
<td>8</td>
<td>Downhole Problems and Troubleshooting: Wellbore instability, vibration, fluid influxes, stuck pipe and fishing, corrosion.</td>
<td>3 hrs</td>
</tr>
<tr>
<td>9</td>
<td>Introduction to Managed Pressure Drilling? What is MPD? Why MPD? Techniques</td>
<td>3 hrs</td>
</tr>
<tr>
<td>10</td>
<td>Dual Gradient Drilling</td>
<td>2 hrs</td>
</tr>
<tr>
<td>11</td>
<td>Microflux Drilling</td>
<td>1 hr</td>
</tr>
<tr>
<td>9</td>
<td>Well Control, drilling problems, safety and environmental issues</td>
<td>4 hrs</td>
</tr>
</tbody>
</table>

Subtotal: 43 hrs
In-class Exams: 2 hrs
Course grading:
Midterm Exam .........................................................(25%)
Final Exam ...............................................................(25%)
Homeworks.................................................................(25%)
Project .................................................................(25%)

Course Instructor/Supervisor:
Dr. Jerome J. Schubert
Tel. (979) 862-1195
Office: Rm. 501K Richardson Building
e-mail: jschubert@tamu.edu

Miscellaneous:
ABET Classification: Science: ______ Design: ___ Math: ______ Other: ______
Laboratory Requirements: Yes: _____ No: ____
Equipment Required: __________

ADA Policy Statement: (Texas A&M University Policy Statement)

Americans with Disabilities Act (ADA) Policy Statement

The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the UCC by the Department of Student Life. The policy Statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe that you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, or call 845-1637.

Coursework Copyright Statement: (Texas A&M University Policy Statement)

Suggested for Inclusion in Your First Day Handout or Syllabus

The handouts used in this course are copyrighted. By "handouts," this means all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copy-righted, you do not have the right to copy them, unless you are expressly granted permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you 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 about plagiarism and/or copying, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty."

Aggie Code of Honor

An Aggie does not lie, cheat, or steal or tolerate those who do.
Texas A&M University

Departmental Request for a New Course

Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Petroleum Engineering

2. Course prefix, number and complete title PETE 667 Petroleum Engineering Reserves and Evaluation

3. Course description (not more than 50 words) Estimation and valuation of hydrocarbon reserves and resources, with emphasis on probabilistic methods, technically challenging reservoirs, and unconventional resources.

4. Prerequisite(s) PETE 664, approval of instructor Cross-listed with n/a Cross-listed courses require the signatures of both department heads.

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

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

7. Has this course been taught as a 489/689? ☑ Yes ☐ No If yes, how many times? 2 Indicate the number of students enrolled for each academic period it was taught. 05A (22 students); 06A (27 students)

8. 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)

M.S., Ph.D. in petroleum engineering

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

10. Prefix | Course # | Title (exclude punctuation) PETE 667 RESERVES AND EVALUATION

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter</th>
<th>Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Do not complete shaded area.

Approval recommended by: Stephen A. Holbrook 6 July 2006

Chair, College Review Committee N. K. Amund 7/16/07

Dean of College 7/16/07

Submitted to Coordinating Board by: Dean of College

Director of Academic Support Services

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-504

38 of 50
Number and Name of Course: PETE 667 Reserves and Evaluation
Instructor: W. John Lee
Prerequisites: PETE 664, permission of instructor

Description of Course:
This course will cover techniques for estimating hydrocarbon reserves and resources and will cover techniques for establishing value of these hydrocarbons. The course will emphasize probabilistic methods of reserve estimation and valuation. The course will also deal with reservoirs in which estimating reserves or characterizing resources offers special technical challenges, including unconventional resources such as heavy oil, coal bed methane, tight gas, shale gas, and gas hydrates.

Text Materials:
Papers from the petroleum literature

Course Outline:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
<th>Time, hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Probabilistic estimation and classification of reserves</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Probabilistic methods for reserves evaluation</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Estimating reserves and resources in technically challenging reservoirs</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Estimating reserves in unconventional reservoirs</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Examinations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>45</td>
</tr>
</tbody>
</table>

Assignments and Tests

Homework, including problems and analysis of the petroleum literature, will be assigned for most classes. There will be two examinations, a mid-term exam and a final exam.

Grading

Mid-term exam                      30%
Final exam                         50%
Homework and class participation   20%

Americans with Disabilities Act (ADA) Policy Statement
The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall or call
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 Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor/.

On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student:
“On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and attach a course syllabus.

1. This request is submitted by the Department of Plant Pathology and Microbiology

2. Course prefix, number and complete title of course: PLPA 601 Fundamentals of Plant Pathology

3. Course description (not more than 50 words): Increase the understanding of the underlying mechanisms in the disease process; apply that understanding to reduce losses caused by disease; nature of disease causing agents; the outcomes of the interaction between plants and pathogens. This course parallels PLPA 619 laboratory.

4. Prerequisite(s): Graduate Classification

5. Is this a variable credit course? Yes ☑️ No

6. Is this a repeatable course? Yes ☑️ No

7. Has this course been taught as a 289/489/689? Yes ☑️ No

8. 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)

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

10. Prefix | Course # | Title (excluding punctuation) | Lect. | Lab. | SCH | Subject Matter | Content Code | Admin. Unit | Acad. Year | FICE Code | Level
    PLPA 601 | Fundamentals of Plant Pathology | 0.3 | 0.0 | 0.3 | 2 | 6 | 0 | 3 | 0 | 5 | 0 | 0 | 2 | 2 | 3 | 1 | 8 | 0 | 8 | 0 | 9 | 0 | 0 | 3 | 6 | 3 | 2

Approval recommended by:

Head of Department: 6/15/07

Chair, College Review Committee: 7/10/07

Dean of College: 7/12/07

Submitted to Coordinating Board by:

Director of Academic Support Services

Questions regarding this form should be directed to Sandra Williams at 845-8836.
OAR/AS – 04/07
Syllabus
PLPA 601 Fundamentals of Plant Pathology
Fall Semester, 2008

Instructor: Dr. Michael Kolomiets, Assistant Professor
Department of Plant Pathology and Microbiology
Room 321 C, L.F. Peterson Building
458-4624
Kolomiets@tamu.edu
Location: HECC 204
Time: TR 9:35 - 10:50am

Introduction

Plant pathology is the study of sick and diseased plants. The science of plant pathology involves increasing our understanding of the underlying mechanisms in the disease process. The art of plant pathology involves applying that understanding to reduce losses of plants caused by diseases. There are many approaches used to study plant pathology. In PLPA 601, we will focus on the nature of disease causing agents, the outcomes of the interaction between plants and pathogens, and the methods we used to control the diseases. The course will conclude with a review of specific sub-disciplines, such as epidemiology, the genetics of plant diseases, physiological aspects of the disease process, and recent advances in biotechnology for better understanding and controlling plant diseases.

The course is designed to parallel information being covered in PLPA 613/Plant Pathology Laboratory. The content of PLPA 613 will help in understanding the principles in PLPA 601 by allowing you to directly examine and manipulate plant pathogens as well as diseased symptomatic plants. This experiential perspective is essential to a thorough understanding of plant pathology.

Grading

Four examinations are scheduled during the semester that will comprise 80% of the final grade (20% apiece). The last of the four exams (not comprehensive) is scheduled during the final exam time slot on Friday, Dec. 8 (12:30 - 2:30 pm). There will be five quizzes given during the semester to contribute 20% of the final grade. One quiz may be dropped at your discretion. The quizzes will be announced during the previously scheduled lecture. Excused absences from exams and quizzes will be allowed only as specified in the TAMU University Student Rules Handbook. Only under those conditions will a make-up be provided.

If you require academic adjustments or auxiliary aids due to a disabling condition, you should refer to the Office of Services for Students with Disabilities in the Department of Student Life. Any appropriate accommodation/modification will be made for legitimate purposes.

Textbook

The required text for the class will be: Agrios, George N. 1997. Plant Pathology, 5th ed. Academic Press, Inc., New York. 922 pp. The necessary reading assignments are listed in the schedule below. Additional information will be presented during the lectures to supplement and expand on material from the text. You are responsible during quizzes and examinations for the required reading as well as the lecture material.

Attendance Policy

Class attendance will be recorded regularly. Your attendance record is considered to be a reflection of your commitment to academic performance and will be used in any decisions needed when assigning "borderline" grades.
## Americans with Disabilities Act (ADA) Policy Statement

The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information. The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall or call 845-1637.

## Schedule

<table>
<thead>
<tr>
<th>Session no.</th>
<th>Date</th>
<th>Pages</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Jan. 16</td>
<td></td>
<td>Bad Weather Day</td>
</tr>
<tr>
<td>2.</td>
<td>Jan. 18</td>
<td>Chap. 1</td>
<td>Introduction; definitions; Koch’s Postulates</td>
</tr>
<tr>
<td>3.</td>
<td>Jan. 23</td>
<td>Chap. 2</td>
<td>Principles and concepts; disease cycles</td>
</tr>
<tr>
<td>4.</td>
<td>Jan. 25</td>
<td>Chap. 12</td>
<td>Bacteria as pathogens; General characteristics</td>
</tr>
<tr>
<td>5.</td>
<td>Jan. 30</td>
<td>Chap. 12</td>
<td>Specific diseases caused by bacteria</td>
</tr>
<tr>
<td>6.</td>
<td>Feb. 1</td>
<td>Chap. 12</td>
<td>Bacterial diseases, cont’d.</td>
</tr>
<tr>
<td>7.</td>
<td>Feb. 6</td>
<td>Chap. 11</td>
<td>Fungi as pathogens</td>
</tr>
<tr>
<td>8.</td>
<td>Feb. 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Feb. 13</td>
<td>Chap. 11</td>
<td>General characteristics of fungal diseases</td>
</tr>
<tr>
<td>10.</td>
<td>Feb. 15</td>
<td>Chap. 11</td>
<td>Diseases caused by “lower” or psuedo-fungi</td>
</tr>
<tr>
<td>11.</td>
<td>Feb. 20</td>
<td>Chap. 11</td>
<td>Diseases caused by “true” fungi</td>
</tr>
<tr>
<td>12.</td>
<td>Feb. 22</td>
<td>Chap. 11</td>
<td>Additional fungal diseases</td>
</tr>
<tr>
<td>13.</td>
<td>Feb. 27</td>
<td>Chap. 11</td>
<td>Fungal diseases, cont’d</td>
</tr>
<tr>
<td>14.</td>
<td>March 1</td>
<td>Chap. 11</td>
<td>More plant diseases caused by fungi</td>
</tr>
<tr>
<td>15.</td>
<td>March 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>March 8</td>
<td>Chap. 15</td>
<td>Nematodes as plant pathogens</td>
</tr>
<tr>
<td>17.</td>
<td>March 13</td>
<td>Chap. 15</td>
<td>Specific plant diseases caused by nematodes</td>
</tr>
<tr>
<td>18.</td>
<td>March 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>March 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>March 22</td>
<td>Chap. 14</td>
<td>Viruses as plant pathogens</td>
</tr>
<tr>
<td>21.</td>
<td>March 27</td>
<td>Chap. 14</td>
<td>Detection and identification of viruses</td>
</tr>
<tr>
<td>22.</td>
<td>March 29</td>
<td>Chap. 14</td>
<td>Specific virus diseases</td>
</tr>
<tr>
<td>23.</td>
<td>April 3</td>
<td>Chap. 13</td>
<td>Parasitic seed plants</td>
</tr>
<tr>
<td>24.</td>
<td>April 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>April 10</td>
<td>Chap. 8</td>
<td>Epidemiology; disease progress curves</td>
</tr>
<tr>
<td>26.</td>
<td>April 12</td>
<td>Chap. 8</td>
<td>Epidemiology; forecasting systems</td>
</tr>
<tr>
<td>27.</td>
<td>April 17</td>
<td>Chap. 9</td>
<td>Principles of plant disease control</td>
</tr>
<tr>
<td>28.</td>
<td>April 19</td>
<td>Chap. 9</td>
<td>Specific disease control approaches</td>
</tr>
<tr>
<td>29.</td>
<td>April 24</td>
<td>Chap. 9</td>
<td>Chemical control of plant diseases</td>
</tr>
<tr>
<td>30.</td>
<td>April 26</td>
<td>Chap. 3</td>
<td>Physiology of pathogen attack, host response</td>
</tr>
<tr>
<td>31.</td>
<td>May 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Minor adjustments to the course schedule may be necessary as the semester progresses.
2. Page numbers refer to sections in the text - specific pages will be noted and emphasized during lectures.
Graduate Credit

This course is stacked with PLPA 301, Graduate students will be expected to meet the following requirements:

1. Four exams are administered for this course. Graduate students enrolling PLPA 601 will be given additional questions on their exams. The answers will be in the form of essays and based upon articles assigned to the graduate students by the instructor graduate students at the beginning of the course.

2. All Graduate students enrolled in PLPA 601, in addition to attending the lecture portion will be required to attend a weekly, one hour discussion session. Students will be required to select, read and present original papers in the discipline of plant pathology (as supervised by faculty in PLPA)
Texas A&M University
Departmental Request for a New Course
Undergraduate * Graduate * Professional
- Submit original form and attach a course syllabus.

1. This request is submitted by the Department of Plant Pathology and Microbiology

2. Course prefix, number and complete title of course: PLPA 614 Pathogens, the Environment, and Society

3. Course description (not more than 50 words): Survey the impact of microorganisms on development of modern culture and society; emphasize role pathogens have played in history of mankind; influence of changing environment on emerging diseases.

4. Prerequisite(s) Graduate Classification Cross-listed with N/A

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

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

7. Has this course been taught as a 289/489/689? ☐ Yes ☑ No If yes, how many times? _______ Indicate the number of students enrolled for each academic period it was taught.

8. 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 COALS or School of Rural Public Health student enrolled in a graduate program.

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

10. Prefix Course # Title (excluding punctuation) PLPA 614 Pathogens, the Environment, and Society

<table>
<thead>
<tr>
<th>Lec</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
<td>03260503002231808-09</td>
<td>003632</td>
<td>Level 6</td>
<td></td>
</tr>
</tbody>
</table>

Approval recommended by:

Head of Department Date 6/19/07

Head of Department (if cross-listed course) Date

Submitted to Coordinating Board by:

Director of Academic Support Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8836.
OAR/AS – 04/07
Pathogens, the Environment, and Society
PLPA614
Professor Karen-Beth G. Scholthof

PLPA614. A survey of the impact of microorganisms on the development of modern culture and society. This course emphasizes the role pathogens have played in the history of mankind and the influence of the changing environment on emerging diseases. Graduate Classification. 3 cr.

Course Structure
What: Lecture and discussion, with occasional lab demonstrations. [NOTE: This is a reading-and writing-intensive course. It is "stacked" with BESC314-900 in the TAMU course catalog.]
When: Tuesday and Thursday from 9:35 am – 10:50 am
Where: 106 Peterson Bldg.

Office Hours: Open-door or by appointment
Office: 117C Peterson Bldg.
Telephone: 979-845-8265
E-mail: kbgs@tamu.edu

Attendance and Participation
It is expected that you will attend all lectures and be prepared to participate in class discussions. It also is expected that graduate students will respect the opinions of their undergraduate BESC314 classmates in discussion and peer-review.

Writing <uwe.tamu.edu>
The University Writing Center offers online and one-on-one consultation. 2nd floor Evans Library.

Library <library.tamu.edu>
The Texas A&M virtual library catalog provides a plethora of online journals, magazines, and books. Of course, the bricks & mortar version—Evans Library—has hard copies of books and magazines, study areas, the writing center, copy machines, and laptop computers.

Ethics and Professionalism
It is expected that you will help provide a good environment for learning. During the discussion it is expected that you be open to diverse ideas that may be presented in class.

Academic Integrity Statement <www.tamu.edu/aggiehonor>
Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student: "On my honor, I have neither given nor received unauthorized aid on this academic work."
**Plagiarism** <www.tamu.edu/aggiehonor>

Plagiarism is defined as theft or inadequate citation of other work, including (but not limited to) primary and secondary literature, and internet sources. Plagiarism will result in a grade of 'zero' for the assignment AND a deduction of the equivalent amount of points from your grade. For example, a score of minus 10 points (-10) would be the penalty per writing assignment if plagiarism occurs.

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

The ADA is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, Room B118 Cain Hall, or telephone 845-1637.

**Assignment Deadlines**

For each Analyses/Peer Review, you will bring 3 copies of your writing to class. In addition, an e-mail is due by 9 am--immediately before the beginning of class. Do NOT send attachments. Paste the text into the body of the message and PLPA614 as subject line. "Late" is defined as anytime after the stated deadline.

**Grading**

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

**REQUIRED BOOKS:**

Ship Fever
Author: Andrea Barrett
ISBN: 0393316009
Pub. Date: December 1996
$13.95

The Collected Stories of Katherine Anne Porter
Author: Katherine Anne Porter
ISBN: 0156188767
$16.00

**SELECT ONE Book, either Johnson or Oshinsky:**

The Ghost Map
Steven Johnson
ISBN: 1594489254
Pub. Date: October 2006
$26.95
Polio: An American Story
David M. Oshinsky
ISBN: 0195307143
Pub. Date: August 2006
$16.95

PLPA614 Assignments (150 points)
I. Critical Analyses (Total = 40 points) Typed analyses and scholarly critiques of the readings. The format is straightforward: Based on your judgment, what is the most important point or idea? Introduce the topic in 2-3 sentences, and then critically discuss and defend your point of view. Complete the assigned essay with 2-3 sentences of firm conclusions. An insightful, thoughtful, and interesting commentary is expected for each assignment. Three (3) copies of your writing are due at the beginning of class (9:35 am) for peer review and discussion. An e-mail copy is due by 9 am (immediately prior to the beginning of class) to kbgs@tamu.edu.

Critical Analyses #1: “Birds with no feet”, by Andrea Barrett
500 words; 5 points

Critical Analyses #2: “Ship fever” (the short story), by Andrea Barrett
1000 words; 10 points

Critical Analyses #3: New Yorker article by Tracy Kidder
1000 words; 10 points

Critical Analyses #4: “Pale Horse, Pale Rider”, by Katherine Anne Porter.
1500 words; 15 points

II. In-Class Writing Assignments (20 X 2= 40 points) A chance to synthesize your ideas in essay format based on your reading. (9:35 to 10:50 am)
In-Class Writing #1: Readings, Discussion, and Food Demo from 16 Jan – 8 Feb
In-Class Writing #2: Directed Writing on either Polio: An American Story or Mapmakers

III. Presentation (5 points) You will be assigned a plant or food native to the Americas. From this, you are expected to give a 5 minute oral presentation on the significance of the food, where it was first discovered (center of origin) and interesting “fun facts” associated with the food, its preparation, and/or its uses from past to present.

IV. Daily Writing Plus Peer Analyses (15 points) At the beginning of each class, there will be a writing prompt for a 10-15 minute handwritten commentary in your notebook. In addition, selected class periods will be used for critical peer analyses of your writing, as shown in the syllabus. For each critical writing assignment linked with peer review, you will bring 3 copies of your assignment. In groups of 3, you will read each copy out loud and critique the writing and ideas. From this, we will have group discussions of the topics.

V. Research Paper (40 points) and Presentation (10 points) A research paper (12-15 pages) with appropriate citations focusing on the general theme of "Pathogens, the Environment and Society". The structure of the paper will be determined after selecting a mutually agreed upon pathogen. The assignment is due the last day of class. In addition, the last full week of the
semester, each PLPA614 student will be expected to prepare a 15-minute power point presentation on their research topic, followed by 5 minutes of class discussion.

TOTAL POSSIBLE = 150 points
Grading Scheme: >90 A; 80-89 B; 70-79 C; 60-69 D; <60 F

<table>
<thead>
<tr>
<th>Lecture No.</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Intro</td>
<td></td>
<td>Postcard - bio</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Art &amp; Science</td>
<td></td>
<td>How many Squares?</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Scientific Method</td>
<td>Fig Tree</td>
<td>Analyses/Peer Review #1</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Scientific Method</td>
<td>Birds No Feet</td>
<td>Assigned Food</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Pathogens 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Pathogens 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The Americas - Culture &amp; Film</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Food Lab and Presentations</td>
<td></td>
<td>Presentation #1</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Reading Day (No Class)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>In Class Writing #1</td>
<td></td>
<td>In-Class Writing #1</td>
<td>20</td>
</tr>
<tr>
<td>11</td>
<td>European Invasions 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>European Invasions 2</td>
<td></td>
<td>Rm. 208 Lab Experience</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Disease Triangle</td>
<td>Disease Triangle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>The Irish Famine 1</td>
<td>Ship Fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>The Irish Famine 2</td>
<td>Ship Fever</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Ship Fever</td>
<td>Ship Fever</td>
<td>Analyses/Peer Review #2</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>Spring Break – No Class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Spring Break – No Class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Tuberculosis 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Tuberculosis 2</td>
<td>Kidder New Yorker</td>
<td>Analyses/Peer Review #3</td>
<td>10</td>
</tr>
<tr>
<td>21</td>
<td>Tuberculosis/HIV</td>
<td>Kidder New Yorker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Influenza 1</td>
<td>Pale Horse, Pale Rider</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Influenza 2</td>
<td>Pale Horse, Pale Rider</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Influenza 3</td>
<td>Pale Horse, Pale Rider</td>
<td>Analyses/Peer Review #4</td>
<td>15</td>
</tr>
<tr>
<td>25</td>
<td>Food and Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Food and Health</td>
<td></td>
<td>Lab Experience</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Presentation/Discussion</td>
<td></td>
<td>Presentation #2*</td>
<td>10</td>
</tr>
<tr>
<td>28</td>
<td>Presentation/Discussion</td>
<td></td>
<td>Presentation #2*</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Jackalopes! and Other Pathogen Adventures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>In-Class Writing #2</td>
<td></td>
<td>In-Class Writing #2**</td>
<td>20</td>
</tr>
<tr>
<td>31</td>
<td>Graduate students (PLPA614)</td>
<td></td>
<td>Research Paper Due</td>
<td>40</td>
</tr>
</tbody>
</table>

* A 15-minute presentation, followed by a 5-minute discussion on their research topic. Attendance is required.

** Intensive writing on your choice of either "Polio: An American Story" or "Mapmakers"
Additional Course Requirements for Graduate Students in PLPA614

Note: For the BESC614 version, as shown in the syllabus, graduate students will complete similar assignments as undergraduates (BESC314-900), but will be expected to prepare longer essays with the addition of pertinent scientific literature. I will offer suggestions for additional reading and schedule independent discussions, as needed. For undergraduate assignments of 500 words and 1000 words, graduate students will prepare essays of 1000 and 1500 words, respectively. The assignments will have the same point value as the undergraduate assignment.

Research Paper (40 points) and Presentation (10 points).
In addition, graduate students will be expected to write a 12 page research paper focusing on the general theme of "Pathogens, the Environment and Society" with the structure of the paper provided by selecting a mutually agreed upon pathogen. The assignment is due the last day of class. In addition, the last full week of the semester, each graduate student will be expected to prepare a 15 minute power point presentation for their undergraduate classmates, based on their research topic.

It is expected that graduate students be prepared for class, meet all the undergraduate requirements, and respect the opinions of their undergraduate classmates in discussion and peer-review.

Grading for PLPA614 is based on 150 total points.
Grade scale, is the same percentage as for BESC314-900.
>90 A; 80-89 B; 70-79 C; 60-69 D; <60 F