New Courses
February 2, 2015

Adam Seipp
Director of Graduate Studies
Department of History

Dear Dr. Seipp,

I write as Interim Director of the Women's and Gender Studies Program (WGST) to offer unequivocal support for two proposed History courses: HIST 626, Readings in Gender and Sexuality in History, and HIST 627, Research Seminar in Gender and Sexuality in History. WGST has a thriving Graduate Certificate Program that currently enrolls over fifty students from three colleges (Liberal Arts, Education, and Health Sciences). The Program requires 12 credits in gender studies and emphasizes interdisciplinary learning, which means our students regularly take courses outside their home department and across the humanities and social sciences. A steadily increasing number of these students, moreover, are engaged in research and/or dissertation work on topics having to do with gender and sexuality. I am virtually certain, in other words, that both History courses would attract strong WGST enrollment, and I fully support their adoption.

Sincerely yours,

Joan B. Wolf
Interim Director
Women's and Gender Studies Program

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

Form Instructions

1. Course request type: ☐ Undergraduate ☑ Graduate ☐ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Animal Science
3. Course prefix, number and complete title of course: ANSC 670: Quality Assurance For The Food Industry

4. Catalog course description (not to exceed 50 words): Principles of food system process control including statistical process control (SPC) and the "tools" required to assure uniform communication and understanding of quality assurance systems.

5. Prerequisite(s): Graduate Classification
   Cross-listed with: FSTC 670 Stacked with: ANSC/FSTC 470

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

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

Graduate students in Animal Science and in Food Science

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

13. Prefix Course # Title (excluding punctuation)
   ANSC 670 Quality Assurance Food Ind
   Lect. Lab Other SCH CIP and Fund Code Admin. Unit Acad. Year HCE Code
   3.00 0.00 0.00 3.00 010901005 0270 16 - 17 0 0 3 6 3 2

Approval recommended by: H. Russell Cross
Department Head or Program Chair (Type Name & Sign) Date
Boon Chew
Department Head or Program Chair (Type Name & Sign) Date

Submitted to Coordinating Board by: Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
ANSC/FSTC 470/670 - QUALITY ASSURANCE FOR THE FOOD INDUSTRY- FALL SEMESTER 2016

INSTRUCTOR: W.N. Osburn
338B Kleberg: Ph: 979-845-3989; E-mail: osburnw@tamu.edu
Office Hours: Fridays 10-12:00 or By Appointment.

LECTURE:
TTH 8:00-9:15; KLCT 300

OBJECTIVES:
1. To provide an understanding of the principles of quality and primary strategies for implementation of Quality Systems in the food industry.
2. To provide a fundamental basis for the principles of food system process control including statistical process control (SPC) and the "tools" required to assure uniform communication and understanding of quality assurance systems.
3. Use quality teams to provide knowledge and application of philosophical and analytical tools required for successful implementation of quality assurance programs in the food industry.

STUDENT LEARNING OUTCOMES:
By the end of this course, students will be able to
1. Apply critical thinking skills to define a problem, identify potential causes and possible solutions, and make thoughtful recommendations.
2. Work as a member of a team to solve a problem and report findings via oral and written communication.
3. Develop product standards and specifications.
4. Use statistical process control techniques to construct control charts.
5. Explain the interrelationship between food safety and quality systems.

SUPPLEMENTAL READING (No required texts)
Covey, S. 1989. The Seven Habits of Highly Effective People, Simon & Schuster. NY.
Specific readings will be established for classroom discussion.

Grading and Class Assignments/Projects:
All students must take three class exams and one class final.

<table>
<thead>
<tr>
<th>Exam dates</th>
<th>Class Exams (All Students)</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 20XX</td>
<td>Exam 1</td>
<td>100</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Exam 2</td>
<td>100</td>
</tr>
<tr>
<td>Dec 20XX</td>
<td>Exam 3</td>
<td>100</td>
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<tr>
<td></td>
<td>Exam 4 (Final)</td>
<td>100</td>
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</table>

<table>
<thead>
<tr>
<th>Date Due</th>
<th>Specific Undergraduate Student Assignments</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 20XX</td>
<td>Quality Guru Paper (UG)</td>
<td>100</td>
</tr>
<tr>
<td>Variable dates</td>
<td>SPC Quality Problem Solving Homework</td>
<td>100</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Team Quality Problem Solving Project Report</td>
<td>50</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Team Quality Problem Solving Project Presentation</td>
<td>50</td>
</tr>
<tr>
<td>Dec 20XX</td>
<td>Personal Mission Statement</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Participation and Class Attendance</td>
<td>50</td>
</tr>
</tbody>
</table>
DESCRIPTION OF UNDERGRADUATE STUDENT ASSIGNMENTS: The following assignments are requirements for undergraduate students in this course.

a) Assignment I: "Quality Guru" paper
Students will select one "founder" or "guru" of "Quality Systems" and write a one to two page paper on how their philosophy of quality impacted current quality management systems.

b) Assignment II: Statistical Process Control
Take home assignments on statistical process control (SPC) include calculations of Z values and process capability construction of X-bar and R charts, Np charts, etc. Dates vary during the semester.

c) Assignment III: Team Project Report and Presentation Assignment
1. You will be formed into Quality Improvement Teams (3-4 persons per team)
2. Each team will be given a scenario with a dataset involving quality issues or problems of a specific food product (Dairy, cereals and grains, fruits and vegetables, muscle foods, etc.).
3. Utilizing the scenario information, plus skills learned in lecture and lab (Team problem solving, Tools of quality, SPC) your team is to use the six step problem solving process to:
   a. utilize data provided to construct statistical process control charts;
   b. from the control charts and information given - identify and define the problem,
   c. determine the cause(s) of the problem based on your statistical analysis,
   d. generate potential solutions to solve the cause(s) of the problem,
   e. analyze each potential solution for its advantages and disadvantages,
   f. recommend the "best" solution (feasible, suitable, cost effective, etc.), and
   g. develop an action plan and timeline for implementing the proposed solution and how the solution will be evaluated to determine its effectiveness.
4. Each team will prepare a written report and PowerPoint slide presentation to the fictional Chief Operating Officer and/or President of the respective company that you are working for.
5. A separate handout detailing what is expected of each team will be provided.

d) Assignment IV: Mission Statement Preparation (Covey).
Each student will be responsible to develop and critique a personal mission statement using the principles and procedures outlined by Covey. This statement will be required and will be based on software program materials to be made available for student use found at the address:
DESCRIPTION OF GRADUATE STUDENT ASSIGNMENTS: The following assignments are requirements for graduate students in this course.

a) Assignment I: Quality Food Systems Research Paper
Students will write a research proposal framework(outline for an eight to ten page research paper explaining how quality management systems can be used to solve a specific food production system (dairy, fruits and vegetables, cereal grains, muscle foods, beef, pork or poultry production systems, etc.) problem area and explain how the application of quality systems principles could positively impact the quality and/or efficiency of that food system.

b) Assignment II: Statistical Process Control
Several take home assignment on statistical process control (SPC). Assignments will include calculations of Z values and process capability and construction of X-bar and R charts, Np charts, etc. Dates vary throughout the semester.

c) Assignment III: Team Project Report and Presentation Assignment
1. You will be formed into Quality Improvement Teams (3-4 persons per team)
2. Each graduate student team must collect their own dataset to be used to develop SPC charts and identifying areas for quality improvements. This dataset can be from research projects or collected from various Animal Science/Food Science facilities (Meat Science Center, Extrusion Lab, etc.) or other food/campus entity.
3. Utilizing the scenario information, plus skills learned in lecture and lab (Team problem solving, Tools of quality, SPC) your team is to use the six step problem solving process to:
   a. utilize data provided to construct statistical process control charts;
   b. from the control charts and information given - identify and define the problem,
   c. determine the cause(s) of the problem based on your statistical analysis,
   d. generate potential solutions to solve the cause(s) of the problem,
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Each student will be responsible to develop and critique a personal mission statement using the principles and procedures outlined by Covey. This statement will be required and will be based on software program materials to be made available for student use found at the address: http://www.covey.com/customer/missionform.html.
TOPICS FOR CLASS LECTURE & DISCUSSION:

I. Principles for Total Quality Management
   a. Defining Quality
   b. Philosophies - Deming, Crosby, Juran, Shewhart

II. Quality Leadership
   a. Project team development
   b. Quality Improvement Cycle
   c. Teambuilding, Communication and Interpersonal Skills

III. Quality Problem Solving
   a. Quality Problem Solving and Management
   b. Problem Solving Process
      i. Problem Identification, Definition, Diagnosis
      ii. Alternative Generation and Evaluation
   c. Types of Quality Problem
      i. Conformance and Efficiency Problems
      ii. Product Design and Process Problems
   d. Team Problem Solving
      i. Blueprint for successful teams
      ii. Conflict Resolution

IV. Quality Management Systems
   a. Total Quality Management
   b. ISO 9000, FSC 22000, SQF, BRC
   c. Six Sigma and Lean Manufacturing

V. The Quality Improvement Process
   a. The Ten-Step Quality Improvement Process

VI. Statistical Process Control
   a. Variation and distributions
   b. Central tendency
   c. Probability and hypothesis testing
   d. Control charts
      i. X bar and R charts
      ii. P, np and c charts
   e. Process capability

VII. The Quality Tool Box - Selected Tools for Continuous Quality Improvement
   a. Project Planning and Implementation Tools
   b. Data Collection and Analysis Tools
   c. Evaluation and Decision-Making Tools

VIII. Applications of Quality Improvement
   a. Team Project Report and Presentations

IX. Interrelationship Between Quality Assurance/Control and Food Safety Programs
<table>
<thead>
<tr>
<th>Lecture</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td></td>
<td>Quality Systems Philosophy (TQM)</td>
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<td>2</td>
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<td>History of Quality</td>
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<td>3</td>
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<td>Quality Leadership - Team Building - Undergraduate Quality Gurus Paper Due</td>
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<td>4</td>
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<td>Quality Problem Solving</td>
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<td>5</td>
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<td>Quality Management Systems</td>
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<td>6</td>
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<td>Quality Improvement Process</td>
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<td>7</td>
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<td>Tools of Total Quality</td>
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<td>11</td>
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<td>Statistical Process Control</td>
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<td>14</td>
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<td>Statistical Process Control - Interrelationship Between Quality Assurance/Control and Food Safety Programs</td>
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<tr>
<td>15</td>
<td></td>
<td>Team Project Assignments and Scenarios</td>
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<td>16</td>
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<td>Interrelationship Between Quality Assurance/Control and Food Safety Programs</td>
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<td>17</td>
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<td>Interrelationship Between Quality Assurance/Control and Food Safety Programs</td>
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<td>18</td>
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<td>Team Project Data Development</td>
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<td>Team Project Data Development</td>
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<td>Exam II</td>
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<td>21</td>
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<td>Team Project Presentations</td>
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<td>22</td>
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<td>Team Project Presentations and Final Reports Due</td>
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<td>23</td>
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<td>7 Habits Of Highly Effective People</td>
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<td>25</td>
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<td>7 Habits Of Highly Effective People - Graduate Student Quality Food System Research Paper Due</td>
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<td>26</td>
<td></td>
<td>Thanksgiving</td>
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<tr>
<td>27</td>
<td></td>
<td>Prep for BRC/SQF training - Mission Statement Due</td>
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<td>28</td>
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<td>Exam III</td>
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<td>29</td>
<td></td>
<td>Prep for BRC/SQF training - Class Evaluations</td>
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<td>Final Exam</td>
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**COURSE REQUIREMENTS**

**Attendance:** Since student participation during discussion sessions is an important aspect of this course, students are expected to attend all sessions. Attendance will be documented using an attendance sheet that must be signed by students in class. Absences will be excused only upon approval of instructors in advance of the class session in question. Five points per unexcused absence will be deducted from your final grade. For more information see TAMU Student Rule 7 – Attendance: [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)
Make-up Work/Auditing Policy

Regular attendance and participation in the course is expected of all students. Anticipated absences should be cleared with the instructor prior to the absence, if possible. Emergency absences (serious illness, injury, death, etc.) should be reported as soon as possible. An excuse may be necessary for more than three absences. Those students auditing the course are expected to participate in all class sessions. Make-up work will be allowed under extenuating circumstances for which written excuses are provided.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 979-845-1637. For additional information visit http://disability.tamu.edu.

Academic Integrity and Honesty

It is the personal responsibility of each student to maintain the highest level of scholastic integrity at the university by refusing to participate in or tolerate any form of scholastic dishonesty. Additional information may be obtained from the Student Handbook or at the Handbook website http://student-rules.tamu.edu/index.htm, http://student-rules.tamu.edu/rules20.htm.

Copyright

The handouts used in this course are copyrighted. By "handout", I mean all materials generated for this class, which include but are not limited to syllabi, in-class materials, and handouts. You do not have the right to copy the handouts, unless I expressly grant permission.

Plagiarism

Plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. You are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues.

Aggie Code of Honor

For many years, Aggies have followed a Code of Honor in an effort to unify the aims of all Aggies toward a high code of ethics and dignity. It functions as a symbol to all Aggies, promoting understanding and loyalty in truth and confidence in each other. "Aggies do not lie, cheat or steal; or tolerate those who do." If you have any questions regarding plagiarism or cheating, please consult the Texas A&M University Student Rules, under the section Scholastic Dishonesty. http://aggiehonor.tamu.edu.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

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

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

3. Course prefix, number and complete title of course: ANTH 672 - Ancient Genetics

4. Catalog course description (not to exceed 50 words):
Ancient DNA and its role in answering anthropological and archaeological questions.

5. Prerequisite(s): Graduate Standing or approval of instructor

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

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

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

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

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

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

M.A., M.S., Ph.D. in anthropology

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

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

13. Prefix | Course # | Title (excluding punctuation)
ANTH | 672 | Ancient Genetics

Lect. Lab Other SCH CIP and Fund Code Admin. Unit Acad. Year Effective Date
3.00 0.00 0.00 3.00 4503010001 0280 16 - 17 0 0 3 6 3 2

Approval recommended by:

Ted Goebel Date

Department Head or Program Chair (Type Name & Sign)

Chair, College Review Committee Date

Dean of College Date

Chair, GC or UCC Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
Anthropology 672-600
Ancient Genetics
Friday, 9:00-12:00 ANTH 236
Spring 2016

Course Description:
In bioarchaeology ancient DNA has become one of the most rapidly growing areas. This is largely due to the introduction of Next Generation Sequencing. We have moved from looking at a single DNA sequence to looking at whole genomes. Some have hailed ancient DNA as the answer to everything. To understand the advantages as well as the pitfalls of ancient DNA, we will explore all the nuances of this exciting and expanding field.

In this course, the lectures will cover the basics of ancient DNA and how it can be used to answer either big or small Anthropological and/or Archaeological questions. We will look at different themes, such as domestication and human evolution and see what ancient DNA can contribute to the understanding of these events. We will look at issues such as ancient DNA contamination and survival, and familiarize ourselves with the methods used to extract and analyze the data. Students will get hands-on experience in the laboratory, extracting DNA and analyzing the results as well as writing a lab report. Furthermore, the students will practice their oral presentations skills, as they present their own researched topics.

Course Objectives:
- Demonstrate a general knowledge of the use of ancient DNA in bioarchaeology
- Demonstrate the ability to design and carry out a study using ancient DNA whilst critically discussing and assessing the advantages as well as the pitfalls of the methods
- Develop communication skills necessary to give conference-like presentations in a logical and structured way, supported by biomolecular and archaeological evidence

Instructor: Anna Linderholm
Class: Friday, 9-12 ANTH 236
Office: Anthropology, Rm 311
Telephone:  
E-mail: alinderholm@tamu.edu
Web: http://anthropology.tamu.edu/faculty/Linderholm
Office Hours: Mon & Wed 9-10, Tues 2-4.
Prerequisites: Graduate Standing or approval of instructor

Required Course Material:
The required reading material will be a set of articles, all available online via Google scholar. They will also be uploaded to eCampus. All the required articles are listed below.

Grades:
Grades will be based on three presentations worth 150 points each (450 points total), a lab report worth 200 points and a final paper worth 350 points. The three presentations will be 30-minute, conference style presentations on assigned topics, during weeks chosen by the student
in consultation with the instructor. The written lab report will relate to lab work done with the instructor, and it will have an introduction, methods section, results section, and discussion. The final paper will be a 10 to 15-page paper presented in the style of *Journal of Archaeological Science*.

**Grading Scale**

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<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>B</td>
<td>800-899</td>
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<tr>
<td>C</td>
<td>700-799</td>
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<tr>
<td>D</td>
<td>600-699</td>
</tr>
<tr>
<td>F</td>
<td>&lt;600</td>
</tr>
</tbody>
</table>

**eCampus**

Using the eCampus application ([http://ecampus.tamu.edu](http://ecampus.tamu.edu)), students can find the readings, review lecture power-point presentations, find their grades, view announcements, and view the syllabus.

**Attendance**

This is a graduate course and students are expected to participate in all classes; however, attendance will not be recorded nor taken into account in the calculation of the final grade.

**Make Up policy:**

If you are not present in class to give your presentations, without a legitimate excuse or prior re-arrangement, you will be assigned a zero. Legitimate excuses for absences are defined in the Texas A&M University Regulations ([http://student-rules.tamu.edu/rules7.htm](http://student-rules.tamu.edu/rules7.htm)).

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

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

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities are guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 979-845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu).

**Academic Integrity**

Cheating will not be tolerated. To view the guidelines of academic honesty laid out by the university, please visit this site: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu).

"An Aggie does not lie, cheat or steal, or tolerate those who do."
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments &amp; Events</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Introduction, Ancient DNA</td>
<td>Lecture</td>
<td>(Hofreiter et al., 2001, Pääbo et al., 2004, Gilbert et al., 2005)</td>
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<tr>
<td>Week 3</td>
<td>Extinct Animals</td>
<td>Lecture plus Student presentations</td>
<td>(Haile et al., 2009, Rohland et al., 2010, Allentoft et al., 2015)</td>
</tr>
<tr>
<td>Week 4</td>
<td>Neanderthals and Modern humans</td>
<td>Lecture plus Student presentations</td>
<td>(Green et al., 2006, Prüfer et al., 2014, Fu et al., 2015)</td>
</tr>
<tr>
<td>Week 5</td>
<td>Kinship</td>
<td>Lecture plus Student presentations</td>
<td>(Haak et al., 2008, Der Sarkissian et al., 2013, Rasmussen et al., 2015)</td>
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<tr>
<td>Week 6</td>
<td>Disease</td>
<td>Lecture plus Student presentations</td>
<td>(Malmström et al., 2010, Bos et al., 2011, Weyrich et al., 2015)</td>
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<tr>
<td>Week 7</td>
<td>Sediments, Ice and Shipwrecks</td>
<td>Lecture plus Student presentations</td>
<td>(Haile et al., 2007, Willerslev et al., 2007, Foley et al., 2009)</td>
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<tr>
<td>Week 8</td>
<td>Pitfalls, Contamination and Ethics</td>
<td>Lecture plus debate</td>
<td>(Jehaes et al., 2001, Kaufmann and Rühli, 2010, Skoglund et al., 2014)</td>
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<tr>
<td>Week 9</td>
<td>Primer workshop, lab prep</td>
<td>Workshop</td>
<td>(Torroni et al., 2006, Achilli et al., 2008, Ye et al., 2012)</td>
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<tr>
<td>Week 10</td>
<td>DNA lab, extracting DNA</td>
<td>Lab work, in modern lab</td>
<td>(Jaenicke-Despres et al., 2003, Larson et al., 2007, Linderholm and Larson, 2013)</td>
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<td>Week 11</td>
<td>Domestication</td>
<td>Lecture plus Student presentations</td>
<td>(Reich et al., 2011, Miller et al., 2012, Lazaridis et al., 2014)</td>
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<tr>
<td>Week 13</td>
<td>Conservation genetics</td>
<td>Lecture plus Student presentations</td>
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<tr>
<td>Week 14</td>
<td>DNA lab results and analysis</td>
<td>Analyzing results and discussion</td>
<td></td>
</tr>
<tr>
<td>Week 15</td>
<td></td>
<td>Final paper and lab report due</td>
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</table>
List of required reading material


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

Form Instructions:
1. Course request type: [ ] Undergraduate  [x] Graduate  [ ] First Professional
2. Request submitted by (Department or Program Name): Health and Kinesiology
3. Course prefix, number and complete title of course: ATTR 673 Manual Therapy in Athletic Training
4. Catalog course description (not to exceed 50 words): Manual therapy theory and techniques used as a therapeutic intervention for orthopedic injuries and conditions; indications and contraindications for the use of manual therapy; skill development in subjective assessment; application of manual and tool assisted techniques.

5. Prerequisite(s):
   Enrolled in MS athletic training program
   Cross-listed with: [ ]  Stacked with: [ ]

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

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

<p>| | | | | |</p>
<table>
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Approval recommended by:

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

George Cunningham
Chair, College Review Committee

Dean of College

Chair, GC or UC

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services - 07/14
ATTR 673: Manual Therapy in Athletic Training
Texas A&M University
Department of Health and Kinesiology

Term: Fall 2016
Instructor: Saul Luna, MEd, ATC, LAT, LMT, CSCS
Office: Olympic Athletic Training Room
Phone: 979-458-2871
E-mail: sluna@athletics.tamu.edu (preferred contact method with response within 24 hours M-F; 48 hrs. on weekend)
Office Hrs: TBD
Classroom: Heldenfels 217
Day/Time: TBD
Technology: TBD

Course Description:

Manual therapy theory and techniques used as a therapeutic intervention for orthopedic injuries and conditions; indications and contradictions for the use of manual therapy; skill development in soft tissue assessment; application of manual and tool assisted techniques. Prerequisite: Enrollment in MS athletic training program.

Required Text and Reading:


Supplemental Reading: Will be made available on eCampus.

Digital Support Resources:
Anatomy TV at http://online.statref.com/EULA/EULA.aspx?SessionId=1CE4FADSPSHEVYVB&Path=http%3a%2f%2fonline.statref.com%2fanatomy.aspx


PalpationMapp http://www.booksfordiscovery.com/proddetail.php?prod=3387
Course Objectives:
Upon completion of this course the student will be able to:
1. Integrate evidence-based practice into clinical assessment, decision-making and manual therapy application (EBP-10).
2. Understand the definition and categories of manual therapy.
3. Apply decision making models to the use of manual therapy.
4. Incorporate manual therapies appropriately into a therapeutic intervention plan of care for common orthopedic injuries to the lower extremity, upper extremity, and spine.
5. Explain the theory and principles of various manual therapy techniques (i.e., muscle energy, myofascial release, strain-counterstrain, joint mobilization, massage, neurodynamics) (T1-8).
6. Fabricate and apply musculoskeletal performance taping to facilitate function (T1-16).
7. Identify absolute and relative contraindications for various manual therapy techniques and procedures in the management of orthopedic and athletic injuries (T1-11a).
8. Demonstrate proper positioning and preparation of the patient for various manual therapies (T1-11b) and describe the expected results and reactions (T1-11c).
9. Demonstrate a specific plan for appropriate staging, progression, regression, or termination of treatments during the execution of a management plan based on ongoing clinical examination, presentation, signs, symptoms, and pathophysiological status (T1-12).
10. Describe the relationship and integration of therapeutic modalities and the incorporation of manual therapies (T1-13).
11. Integrate joint mobilization, neural mobilization, and soft tissue mobilization into a therapeutic plan for pain reduction and restoration of joint and tissue mobility (T1-14).
12. Prescribe manual therapy interventions and relationships with consideration for static and dynamic postural alignment deficiencies, biomechanics, and ergodynamics (T1-18).
13. Identify institutional, state, and/or federal standards that influence the application of manual therapy techniques by athletic trainers (T1-19).

Evaluation Procedures:
Grades awarded in this class will be calculated as a simple percentage of the total number of points possible. The specific point values for each of the various evaluative criteria appear below, as well as the grading scale to be applied to earned percentage values.

Written examination = 100
Practical examinations 2 x 100 points = 200
Final written cumulative examination = 100
400 points
* Quizzes and additional assignments as would benefit learning process.

Grading System:
90% and above A; 80-89% B; 70-79% C; 60-69% D; Below 60% F

Course Policies:
Dress Code: All students must dress appropriately for lab sessions and examinations. Failure to dress appropriately for lab sessions will count as an absence from lab. Failure to dress appropriately for lab examinations will result in a zero "0" for that examination. Appropriate dress includes the following: exercise shorts (wearing tights underneath is acceptable), sport bras for women, men will need to remove shirts for torso and upper extremity injury evaluation.

Electronic Submission of Course Assignments:
At times, students may be required to submit a course assignment electronically by emailing it to the course instructor on a specified date and time. Failure to follow electronic submission guidelines may result in the assignment not being accepted. When doing so, students are expected to do the following:
- Send a professional email to the instructor which contains a professional salutation (Dr., or Ms., or Mr.),
- Brief information regarding the purpose of the email should be included;
- The email should be closed with the student’s name and affiliation;
- The subject line on the email should include the course, assignment, and student name.
- The name of the attached file should be as follows unless otherwise specified: Course prefix and number (ATTR 665), Name of assignment (Case Study Assignment #1), Jane Doe, 2.14.12

Attendance Policy: Attendance requirements will be as described in the Texas A&M University Student Rules handbook (http://student-rules.tamu.edu/rule07). TAMU views class attendance as an individual student’s responsibility. Students are expected to attend class and to complete all assignments. Instructors are expected to give adequate notice of the dates on which major tests will be given and assignments will be due. Absences will be authorized for reasons deemed sufficient by the instructor or by the university. When an absence is authorized, the instructor must either provide the student an opportunity to make up tests, assignments and other work missed or provide a satisfactory alternative to be completed within 30 days of the excused absence. The manner in which make-up work is administered remains the prerogative of the instructor. The instructor is under no obligation to provide an opportunity for the student to make up work missed because of unauthorized absence. The student may appeal the instructor’s decision that an absence is unauthorized.
Professional Conduct: Students are expected to conduct themselves professionally at all times and to adhere to the guidelines published in the Texas A&M University Student Rules Handbook. Professional conduct entails but is not limited to attending classes on time, showing respect for the instructor and fellow classmates, being prepared for class, dressing appropriately and turning completed assignments in on time with exact adherence to instructions for completion.

Cell Phones (and other IM Devices) and iPods: Cell phones, iPods, and other IM devices should be turned off during class — not in silent/vibrate or other mode. Students must not answer incoming calls or text (or other mode of communication) during class. These are to be turned off and put away before entering the classroom. If you have a situation (family illness, etc.), and you need to be contacted, notify the instructor to acquire permission to keep the device on vibrate and then step out of the room before answering.

Academic Integrity Statement and Policy: The handling of possible incidents of academic dishonesty will be as described in the Texas A&M University Student Rules handbook. Students are encouraged to review Section 20 at http://student-rules.tamu.edu/search/rule20.htm of the Texas A&M University Student Rules as well as http://aggiehonor.tamu.edu. Students who do not understand any part of Section 20 should consult the instructor of this course. All work to be completed for this class is to be individual work unless otherwise noted. "An Aggie does not lie, cheat, or steal, or tolerate those who do."

Plagiarism: As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, consult the latest issue of the Texas A&M University Student Rules, under the section concerning Scholastic Dishonesty.

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

Additional Notes: The instructor reserves the right to modify this course syllabus at any time. Students will receive verbal notification of such modifications.
# ATTR 673: Manual Therapy in Athletic Training

## Tentative Course Schedule

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC</th>
<th>Reading</th>
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</thead>
<tbody>
<tr>
<td><strong>WK 1</strong></td>
<td></td>
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</tr>
<tr>
<td>Tues 8/30</td>
<td>Introduction Orthopedic manual therapy art and science Manual therapy credentials Regulation of manual therapy practice</td>
<td>Biel Chp. 7 Cook Chp. 1</td>
</tr>
<tr>
<td>Thurs 9/1</td>
<td>Lower Extremity Evaluation: Anatomy, Palpation, Mechanics of Foot, Ankle, Knee</td>
<td>Biel Chp. 7 Cook Chp. 2, 3</td>
</tr>
<tr>
<td><strong>WK 2</strong></td>
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<tr>
<td>Tues 9/6</td>
<td>Anatomy, Palpation, Mechanics of Hip, Torso, Shoulder</td>
<td>Biel Chp. 2, 4, 6</td>
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<tr>
<td>Thurs 9/8</td>
<td>Anatomy, Palpation, Mechanics of Hip, Torso, Shoulder</td>
<td>Biel Chp. 2, 4, 6</td>
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<tr>
<td><strong>WK 3</strong></td>
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<tr>
<td>Tues 9/13</td>
<td>Anatomy, Palpation, Mechanics of Elbow, Wrist, Hand</td>
<td>Biel Chp. 2, 3</td>
</tr>
<tr>
<td>Thurs 9/15</td>
<td>Anatomy, Palpation, Mechanics of Elbow, Wrist, Hand</td>
<td>Biel Chp. 2, 3</td>
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<tr>
<td><strong>WK 4</strong></td>
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<tr>
<td>Tues 9/20</td>
<td>Written Exam #1</td>
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<tr>
<td>Thurs 9/22</td>
<td>Soft Tissue Interventions: Massage</td>
<td>Starkey Chp. 17</td>
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<tr>
<td><strong>WK 5</strong></td>
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<tr>
<td>Tues 9/27</td>
<td>Soft Tissue Interventions: Myofascial Release, Muscle Energy, Strain/Counter Strain</td>
<td>Supplemental Reading</td>
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<tr>
<td>Thurs 9/29</td>
<td>Soft Tissue Interventions: Joint Mobilization</td>
<td>K&amp;C Chp. 5</td>
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<td><strong>WK 6</strong></td>
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<td>Tues. 10/4</td>
<td>Neurodynamics</td>
<td>Cook Chp. 15</td>
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<td>Thurs. 10/6</td>
<td>Neurodynamics</td>
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<tr>
<td><strong>WK 7</strong></td>
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<td>Tues 10/11</td>
<td>Performance Taping</td>
<td>Supplemental Reading</td>
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<tr>
<td>Thurs 10/13</td>
<td>Practical Exam #2</td>
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<td><strong>WK 8</strong></td>
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<tr>
<td>Week</td>
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<td>Content</td>
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<tr>
<td>Wk 9</td>
<td>10/18</td>
<td>Complexity of Tissue: Anatomy Trains</td>
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<td>Integration of Techniques: Assessment/Interventions Foot</td>
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<td>Wk 10</td>
<td>10/25</td>
<td>Integration of Techniques: Assessment/Interventions Ankle/Knee</td>
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<td>Wk 11</td>
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<td>Integration of Techniques: Assessment/Interventions Hip/Torso</td>
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<td>Wk 12</td>
<td>11/8</td>
<td>Integration of Techniques: Assessment/Interventions Shoulder/Elbow</td>
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<td>Integration of Techniques: Assessment/Interventions Shoulder/Elbow</td>
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<td>Wk 13</td>
<td>11/15</td>
<td>Integration of Techniques: Assessment/Interventions Wrist/Hand</td>
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<tr>
<td>Wk 14</td>
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<td>Practical Exam #3</td>
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<td>11/24</td>
<td>THANKSGIVING</td>
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<td>Wk 14</td>
<td>11/29</td>
<td>Global Assessments: Movement screening/Video Analysis/Intervention Plans</td>
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<td>12/1</td>
<td>Global Assessments: Movement screening/Video Analysis/Intervention Plans</td>
</tr>
</tbody>
</table>

*Class times and days may occasionally be altered to accommodate guest speakers and other learning opportunities.

*Lab examinations may be scheduled outside of laboratory hours to accommodate the number of students in the course.
Texas A&M University
Departmental Request for a New Course
Undergraduate + Graduate + Professional
* Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:  
   □ Undergraduate  □ Graduate  □ First Professional (DDE, MD, JD, PharmD, DVM)

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

3. Course prefix, number and complete title of course:  
   BIOL 694 GRADUATE ORIENTATION

4. Catalog course description (not to exceed 50 words):
   This course provides an orientation to graduate studies and the pathway through a PhD and beyond.

5. Prerequisite(s):
   Graduate classification
   Cross-listed with:  
   Stacked with:  

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

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

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

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

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

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

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

13. BIOL 694 GRADUATE ORIENTATION

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<th>Arch. Unit</th>
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Approval recommended by:  

Department Head or Program Chair (Type Name & Sign)  

Date  

Chair, College Review Committee  

Date

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

Date  

Chair, GC or UCC  

Date  

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services - 07/14
BIOL 694. Graduate Orientation Syllabus.
Fall 2016. Thursdays 5:30-7:00 pm, Butler Hall 103.

Instructor: Dr. Arne Lekven. Office: BSBE 118B.
email: alekven@bio.tamu.edu
phone 979-458-3461

Course description: This course provides an orientation to graduate studies and the pathway through a PhD and beyond.

Grading: Attendance is required for a grade of satisfactory.

Tentative schedule of class topics:
Sept. 03 Arne Lekven
Welcome to grad school. How to talk to profs, lab members. Navigating the system.

Sept. 10 Rene and Wayne
How to excel as a graduate student.

Sept. 17 Arne
Being faculty at a Tier 1 research university.

Sept. 24 University Writing Center
Overview of their services

Oct. 01 BGSA officers
Surviving grad school; BGSA organization/activities.

Oct. 08 Veronica Acosta
Being faculty at a primarily undergrad institution

Oct. 15 Bruce Neville
TAMU library and online servies.

Oct. 22 Steve Lockless
Scientific publishing and reviewing.

Oct. 29 Katie Stober
Career Center Services

Nov. 05 Jim Smith
Working, connecting with biotech/ pharmaceuticals.

Nov. 12 Ginger Carney
Plagiarism/balancing work and life.

Nov. 19 TBD.

Nov. 26 Free for Thanksgiving.

Dec. 03 TBD.
Academic Integrity

"An Aggie does not lie, cheat, or steal, or tolerate those who do." The Aggie Honor Code. Academic misconduct, a violation of the Texas A&M Honor System, involves any of the following offenses: cheating, fabrication, falsification, multiple submissions, plagiarism, and complicity in any of these offenses. For explanations and examples of what constitutes academic dishonesty visit the Office of the Aggie Honor System at http://www.tamu.edu/aggiehonor/

The Americans With Disabilities Act

The Americans with Disabilities Act provides comprehensive civil rights for persons with disabilities. It 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 attach a course syllabus.*

Form Instructions
1. Course request type:  
   - [ ] Undergraduate  
   - [ ] Graduate  
   - [ ] First Professional (D.D.S., D.M.D., P.H.M.D., D.P.M.)
2. Request submitted by (Department or Program Name):  
   Department of Biology
3. Course prefix, number and complete title of course:  
   BIOL 698 Ethics and Responsible Conduct of Research
4. Course description (not to exceed 50 words):  
   Course will provide instruction on what constitutes fraud in science, how to recognize it, and how to avoid committing fraud. Substantive areas include aspects of ethics and plagiarism, negotiation techniques and conflict management, and the regulations and ethics covering animal and human experiments, record-keeping, data management, and peer review.

5. Prerequisite(s):  
   Graduate classification or approval of Instructor

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

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

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

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

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

11. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history):
      BIOL and MCR
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography):
      PhD and MS for any biological science discipline

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

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

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
BIOL 696-600: Ethics and Responsible Conduct of Research

Term: Spring 2017  
Meeting Times: Wednesdays 1:00 PM – 2:30 PM  
Location: LSB room 3143  
Number of Credits: 1

Course Description
This class provides instruction on what constitutes fraud in science, how to recognize it, and how to avoid committing fraud. Subjects in this area will also include the basis of ethics and plagiarism, negotiation techniques and conflict management, and the regulations and ethics covering animal and human experiments, record-keeping, data management, and peer review.

Course Pre-requisites
Graduate student standing or approval of the instructor

Learning outcomes/ course objectives/ learning objectives
Students successfully passing the course will get legal certification that they have received ethical training following the NIH and NSF guidelines (see for instance http://grants.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html for NIH and http://www.nsf.gov/bfa/dias/policy/rcr.jsp for NSF); will have learned how to not inadvertently violate federal laws regulating record-keeping, human studies, and animal studies, and will have learned skills in negotiation techniques and conflict management.

Instructor Name: Dr. Richard Gomer
Telephone Number: 979 458 5745
email address: rgomer@tamu.edu
Affiliation: TAMU Biology
Office hours: By appointment
Office location: LSB room 2121 301 Old Main Drive MS 3474 College Station, TX 77843-3474 USA

Textbook

Grading policy
To receive your one hour pass-fail credit, you need to:
1) Complete the NIH-approved tutorials and hand in the printed certification pages with your name on them by April 16.
   a. human subjects: http://rcb.tamu.edu/humansubjects/training

2) Attend classes. There will be 10 of these on Wednesdays at 1 PM. Since this course is designed to meet specific legal guidelines for your certification, **attendance at ALL classes is required to pass the course.** You may make up as many as two classes (no more than two) by interviewing two people who attended the class and writing a 500-word summary of what went on. Make sure you sign in at each class to get credit. Showing up more than 10 minutes late constitutes missing a class, and if you do show up late for any class, you will be required to write a 100 word essay as above.
describing the material that you missed. All classes will include discussion. To get credit for the class you must be prepared, which means you must have read the assigned reading from the ORI text and be ready to show you have applied some thought to the posted questions.

Course topics, calendar of activities, major assignment dates
Before class, read the indicated Steneck chapter

Feb 4    Introduction
Feb 11   The basis of Ethics (1,2)
Feb 18   Human subjects (3,5,8)
Feb 25   Animal care and use (4)
Mar 4    Plagiarism, paraphrasing, and citations
Mar 11   No Class
Mar 18   No Class -Spring Break
Mar 25   Patents
Apr 1    Record-keeping (6)
Apr 8    Career Paths (7)
Apr 15   Negotiations and conflict management
Apr 22   Data Management and Peer Review (9,10)

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

Academic Integrity Statements
AGGIE HONOR CODE: "An Aggie does not lie, cheat, or steal or tolerate those who do." Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit: http://aggiehonor.tamu.edu/

Copyright Policy
All materials used in this class are copyrighted. Therefore, you do not have the right to copy class materials unless permission is expressly granted.
Texas A&M University
Departmental Request for a New Course
Undergraduate  Graduate  Professional
Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   - Undergraduate  Graduate  First Professional (D.D.S, M.D, J.D, Pharm.D, D.V.M)
2. Request submitted by (Department or Program Name):
   Select or Type Department/Program Name
   EPSY 634: Educational Neuroscience
3. Course prefix, number and complete title of course:

4. Catalog course description (not to exceed 30 words):
   Human learning from a biological perspective; fundamentals of genetics and neuroscience and the principles used to better understand the conditions brains develop and function optimally; a look at the biological substrates of emotions and motivation as well as executive functions (e.g., working memory, attentional control), and skills related to language and mathematics; neuroscience and application to atypical learners; emotional, learning, and other disorders that make learning and succeeding in educational contexts more challenging.

5. Prerequisite(s):
   Graduate classification; approval of department head
   Cross-listed with:
   Stacked with:

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

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

8. Will this course be repeated within the same semester?  Yes  No
   If Yes:

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

10. How will this course be graded?  Grade  S/U  P/F (C.R.M)
    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)

Students in the Master's and Ph.D in Learning Sciences as well as the Ph.D in School Psychology - Neuroscience track.

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

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

13. Grades  Letter? Title (including punctuation)

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Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845.8201 or sandra.williams@tamu.edu.
MEMORANDUM

TO: Graduate Instruction Committee, CEHD

THROUGH: George Cunningham, Ph.D.
Associate Dean, College of Education and Human Development

FROM: Victor Willson, Ph.D.
Professor and Head

SUBJECT: New Course – EPSY 634: Educational Neuroscience

Attached, please find the appropriate paperwork for creating the new course EPSY 634: Educational Neuroscience

Pursuant to the directives of the College, the following information is provided:

1. Rationale: This course is a new course that will be optional for all Ph.D. students in the Learning Sciences program for Educational Psychology major as well as PHD students in the SPSY program - Neuroscience track. The course is meant to give more background and rationale as to how the brain functions in a variety of capacities and provide students with more research understanding in this area.

2. Vote by the Executive Committee: The changes have the unanimous support of our executive committee. This course was discussed at that executive committee meeting on 10/12/15.

We appreciate your consideration of this course. Please contact us should you require any additional information.
EPSY 634: EDUCATIONAL NEUROSCIENCE  
Syllabus  
Fall 2016, Face-to-face  
Department of Educational Psychology

Instructor: Steven Woltering, Ph. D.  
Contact: swolte@tamu.edu.  
Office hours: By appointment, 718B Harrington Tower  
Teaching Assistant: TBD

Main Textbook: None, articles only.

ABOUT THIS COURSE

Welcome to EPSY620, Educational Neuroscience! Neuroscience has been, and still is, taking the field of psychology by storm and education is next. This course is meant for educational professionals, clinicians, and anyone interested in the psychology of learning who wishes to be prepared for an age where neuroscience and other biometrics will become an increasingly important factor in explaining our thoughts, motivations, and behavior. This course may also be useful for neuroscientists who wish to learn about theoretical models which can bridge the translational gap between biological mechanism and behavior.

In the course, we will mostly look at human learning from a biological perspective. We will cover the fundamentals of genetics and neuroscience before we discuss how we can use these principles to better understand under what conditions our brains develop and function most optimally. Next to basic factors such as sleep, nutrition, and exercise, we will also look at the biological substrates of emotions and motivation as well as executive functions (e.g., working memory, attentional control), and skills related to language and mathematics. We will also discuss what we can learn from neuroscience that can be applied to atypical learners, such as those struggling with emotional, learning, and other disorders that make learning and succeeding in educational contexts more challenging (e.g., dyslexia, ADHD, disruptive behavior disorders).

Pre-requisites: Graduate classification; approval of department head.
ROLE EXPECTATION

As your instructor (you can call me Dr. Steven), I am proud to offer you ‘Educational Neuroscience’ at Texas A&M University. We will be among the first (and few) to offer such a course in the world hosted by an education department. You can expect me to provide you with a deeper exploration and contextualization of the learning material as provided in the core readings. I will facilitate the learning process by offering you opportunities to interact with the learning material, myself, or your classmates through discussions, presentations, writing, or other activities. Last, I hope my background as an elementary school teacher, behavioral geneticist, and neuroscientists will also be able to provide you with unique perspectives.

I see you, the graduate student, as a self-directed future colleague in a common quest to generate new knowledge or applications that will transform lives for the better. Building on our diverse backgrounds, personal goals, and skills, I look forward to learning from each other’s insights and perspectives.

My main expectation is that you.
- have read this entire syllabus and agreed to all its content before the course begins.
- are here because you want to improve your skills, and advance your knowledge, about the science of learning.
- will alert me as soon as you are under-challenged or unable to fulfill the basic course requirements.

The teacher assistant (TA) will allow me to focus more on the quality of teaching and feedback. When you have a general or specific question about the course, available resources, or a complaint about the marking, please always contact a TA first. If the TA won’t be able to resolve your question, she or you can contact me directly at swolfe@tamu.edu. When appropriate, I will involve the TA in my answer so s/he will be able to help other students who have similar queries. We strive to get back to you within 24hrs. In addition to being a helpful resource, TA’s may direct class activities, moderate debates, or assist with marking.

CLASS FORMAT

A typical class will start with a lecture. Lectures won’t just summarize the readings but build onto the prepared materials to deepen and personalize your level of knowledge and surpass that of a standard textbook. Discussion during lectures is encouraged to promote critical thinking.

After a short break there will be a class activity or demonstration followed by student presentations. Class activities are aimed at promoting student involvement with each other and the learning material. Each class will end with a take-home message, a reflection on whether the class-goals were met, and what to expect when preparing for the next class.
EVALUATION

Your course grade is based on your performance in two reaction papers (40 points max), two wiki reviews (30 points max), one class presentation (20 points max), and general class participation (10 points max).

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Reaction papers (40 pts): You are required to submit a minimum of two double-spaced 2-page reaction papers. You can hand in as many reaction papers as you like, however, the best two papers will count towards your final mark (20 points each, max). Reaction papers are short reactions to the material you studied in preparation of a class. Reaction papers can be emailed <[Name] [Class #]> (e.g., [John Flynn – Class 8]) to me at any time in the course but before the first class activity starts of the class you did your reaction paper topic on. This way, we can all benefit from your insights and ideas during the class. Please note that everyone should have submitted at least one paper by the 7th class.

Reaction papers can be in the form of a critique, novel synthesis of readings, proposal for a potential application or research, or an integration of the material with your own work or interests. The intended audience of your writing are professional reviewers (of grants, scholarships, scientific journals/outlets) in your field of interest. Reaction papers should not exceed a two pages and be in 12pt Times New Roman font, double spaced with 1” margins. An extra page can be used to denote references (APA-style, latest edition) and to add up to 2 footnotes to explain specialist terms or concepts. To save space, you are allowed to use numbers in the text to refer to your references instead of writing out the author names. Papers should be titled, dated, and contain your name and course code (EPSY 673).

You will receive feedback on your work the week after you have handed in your paper. Papers will be judged on formatting and academic style, clarity of written expression, understanding of material, and novelty. However, after your first paper, a very important criterion will be your own progress. All your reaction papers must be on different topics. More information on these assignments, including helpful resources to improve your writing, can be found on the course website.

Please note that the feedback is intended to challenging. An average student can be expected to hand in more than three papers for a satisfactory mark.

I believe this approach will give you more high-quality teacher-student feedback, allow for more opportunity to write on topics when you feel inspired, and enable you to spread your effort across the semester instead of a final assignment during a stressful period. Moreover, learning how to write succinctly is an important skill in obtaining grants & scholarships as well as manuscripts.
for publication in professional outlets.

**Wiki reviews (30 pts):** You are required to submit 2 literature reviews (15 points each, max) on a topic of your choice as indicated in the lab wiki page on the Educational Neuroscience textbook project. This project aims to create the first (and best!) textbook on Educational Neuroscience. You will gain access to the wiki which contains an outline/draft including tags where specific literature reviews are needed.

Reviews should, 1) contain a clear description of your search criteria and databases used, 2) contain full references to the source of the material, and 3) report findings in a scientifically sound, objective, unbiased and balanced fashion (this may also be in the form of an excel sheet). There are no page limits, however, we expect a typical review to consist of no more than 4 pages (including references/tables, etc...). More information on this assignment, including examples, can be found on the course website and wiki pages.

*You can hand in reviews once at any point during the course, however, you have to have handed in your first review by the 7th class.*

**Class presentation (20 pts):** Students are required to do one solo presentation of about 30 minutes on a topic of their choice. You are encouraged to do your presentation on the topic you choose for your wiki review and contain presentations of scientific peer-reviewed papers, case-studies, or other reliable sources on a topic closely related to the theme of the class. Typically, solo presentations happen near the end of a class. The idea is for your presentation to supplement the required class material and further engage your classmates.

I aim to have a schedule finalized by the end of the second class. *Topics for the presentation should be approved by Dr. Woltering at least a week ahead of time.* This will prevent your content from overlapping with class material.

Presentations are judged on your communication skills and understanding of the material. A presentation shouldn’t last longer than 30 minutes in total, should have an interactive component or at least allow for questions to be asked. You are encouraged to use presentation software such as PowerPoint or Prezi.

**Class participation (10 pts) & penalty points:** Your class participation mark will be determined by your class-attendance, consistent preparation, and active engagement during the class with your instructor, class mates, and learning material. In preparation for a class, you are required to do the readings as listed under ‘prepare’ in the class schedule. The enrichment material is optional, however, you are strongly recommended to check them out.

As an instructor, I reserve the right to hold (un)announced mini-quizzes as well as other means of assessment. Such mini-quizzes consist of easy questions from the required readings. The class activities, in general, are a means to engage with the learning material, and test/expand your knowledge, through discussion, games, videos, and/or other exercises.
As for class attendance, you are expected to be present and active at every class, except in instances of university excused absences. For each missed class there will be a 10-point reduction on your grade. To avoid the 10-point penalty, you can hand in a make-up assignment that will constitute out of a 4-page summary and reflection of the learning material to be handed in within 2 weeks of the missed class (pass or fail). If more than three classes are missed, your grade will be an auto-fail (independent of make-up assignments). For information on class attendance and excused absences, please see student rule 7: student-rules.tamu.edu/rule07

Students are expected to arrive before the class starts. Points can be deducted if a student is consistently late or misses a large portion of the class.

Please contact me if you think there should be an exception to these rules based on extenuating circumstances.

**BONUS points (up to 10 pts):** Bonus points are added to your total mark at the end of the course. You are in no way obligated to partake in activities that can earn you these points. They can be gained through peer review activities, bonus questions on mini- quizzes, or high-quality feedback comments on the wiki project.

For **peer review**, you can earn 1 bonus point for each reaction paper you reviewed from one of your classmates (to a maximum of 5 points). Your feedback will be judged (pass-fail) on elements of style, grammar, and formatting but mostly on how you stimulate the author to deepen their thinking, provide clearer argumentation or synthesis, and/or conduct more accurate literature research. Next to comments on how to improve the paper, it's also important to give detailed feedback on what you thought was good. **Under no circumstance are you allowed to (re)write sections of the paper for them or suggest completely novel ideas!**

Rules: the same rules apply for the handing in and receiving of feedback as with reaction papers with respect to the timing. You need to email me an electronic copy with your comments in track changes. You must have permission from the original author to share the review. A paper may only be reviewed for bonus points by one reviewer.

For **bonus questions** on mini- quizzes, you just simply answer those questions correctly.

For **feedback comments** on the wiki project (to a maximum of 5 points), Dr. Woltering will determine whether your feedback or suggestion is something he had not considered yet or whether your feedback will have an impact, beyond what was already planned, on the textbook.

**SCHEDULE**

The class units will be called chapters. In each chapter, we will discuss developmental perspectives, treatment/intervention perspectives, as well as psychopathologies.

Chapter 1: Introduction to the course & Basic neuroscience I.

Chapter 2: Basic developmental neuroscience (*Class presentation dates decided*)
Chapter 3: Theoretical principles of neuroscience
Chapter 4: How to read a neuroscience paper
Chapter 5: Exercise and movement
Chapter 6: Sleep, napping, and other mental states
Chapter 7: Nutrition (*First reaction paper and review due, if not submitted one before*)
Chapter 8: Language development
Chapter 9: Memory
Chapter 10: Math and higher-order reasoning
Chapter 11: Executive functions
Chapter 12: Socio-emotional development
Chapter 13: Self-regulation
Chapter 14: The future of Educational Neuroscience: use and misuse (*Second reaction paper and review due, if not submitted before*).

**QUESTIONS?**

Before you ask a question, after having read the syllabus (of course), please check the general discussion forum’s ‘frequently asked questions’ (FAQ) on the lab’s website. If your question is not answered there, please email the TA if your question is very specific to your situation. If your question is of general interest, we urge you to start a thread in the general discussion forum.
Americans with Disabilities Act (ADA)

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

Students with Special Needs

Any student who could require assistance in the event of a necessary evacuation of the building in which this class is taught are asked to notify the instructor so that individuals can be identified to assist him/her during an evacuation.

Academic Honesty

As commonly defined, plagiarism consists of passing off as one’s own words, writings, etc., which belong to another. Therefore, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. In addition, all materials generated for this class are copyrighted. As such, you do not have the right to copy the handouts, unless I specifically grant permission. If you have any questions concerning plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section entitled “Scholastic Dishonesty.”

Aggie honor code

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

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

For additional information please visit: aggiehonor.tamu.edu
TAMU Integrity Academic Statement and Policy

You must properly acknowledge the sources of the words, ideas, and information you present in all course assignments, assessments, and other activities. Failure to do so constitutes plagiarism.

(Aggie Honor System:

http://aggiehonor.tamu.edu/Descriptions/Plagiarism.aspx

In all of your work in this course, you should use your own words to express your understanding whenever possible, being certain that you always give proper credit to the source. When you quote, paraphrase, or summarize another source, you must clearly indicate that you have done so following the rules and formats specified by APA (2010, pp. 169-174). In addition, you must avoid “paraphragarism,” (i.e., plagiarism via paraphrase, Gall, Gall, & Borg, 2007, p. 75), in which text from another source is used with only minor revisions.

For information about how to avoid plagiarism see:

Aggie Honor System Rules:

http://aggiehonor.tamu.edu/RulesAndProcedures/HonorSystemRules.aspx#HonorSystemRulesh
http://library.tamu.edu/help/help-yourself/using-materials-services/online-tutorials/academic-
integrity/academic-integrity-5.html

Plagiarism, TAMU Library Guides:

http://guides.library.tamu.edu/content.php?pid=393112&sid=3221010

Avoiding Plagiarism, TAMU University Writing Center:

http://writingcenter.tamu.edu/for-faculty/teaching-writing/classroom-
workshops/undergrad/plagiarism/

Avoiding Plagiarism, Self-Plagiarism, and Other Questionable Writing Practices; U.S.
Department of Health and Human Services Office of Research Integrity:

http://ori.dhhs.gov/education/products/plagiarism/6.shtml

Avoiding Plagiarism Tutorial, McGraw Hill:

http://highered.mcgraw-hill.com/sites/0072873469/student_view0/avoiding_plagiarism_tutorial/

How to recognize plagiarism, paraphrasing, Indiana University Bloomington School of
Education:

https://www.indiana.edu/~istd/example1paraphrasing.html

All incidents of suspected plagiarism or other academic misconduct in this class will be reported
to the Aggie Honor System Office as required by TAMU rules and procedures.
If a finding of plagiarism or other academic misconduct is reached, the student’s Chair or Temporary Advisor will be notified. The range of possible penalties for such offenses ranges from mandatory ethics training with no penalty to expulsion from the program or university.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

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

2. Request submitted by (Department or Program Name): Department of Ecosystem Science and Management
   ESSM 804: Changing Natural Resource Policy

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

4. Catalog course description (not to exceed 50 words):
   Study of the process through which environmental policies are changed; theories of social and political change; using these theories along with original research on environmental policy problems to create and implement plans for changing environmental policies in communities.

5. Prerequisite(s):

       Graduate classification.

Cross-listed with:

Stacked with: ESSM 404

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

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

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

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

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

10. This course will be:

   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

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

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

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

13. Prexy Course# Title (excluding punctuation)

   ESSM 604 Changing Nat Resc Policy

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Approval recommended by:
Dr. Tom Boutton
Department Head or Program Chair (Type Name & Sign) Date 8/8/2015

Dr. David Reed
Chair, College Review Committee Date 10/21/15

Dr. David Reed
Dean of College Date

Dr. Mark Zoran
Chair, GC or UCC Date 11-5-15

Submitted to Coordinating Board by:
Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
TO: Dr. David Reed, Associate Dean for Graduate Programs
College of Agriculture and Life Sciences

THROUGH: Dr. Thomas Boutton, Associate Department Head for Graduate Programs
Department of Ecosystem Science and Management

FROM: Dr. Forrest Fleischman, Assistant Professor
Department of Ecosystem Science and Management

DATE: September 23, 2015

SUBJECT: Proposed new course: ESSM 604: Changing Natural Resource Policy

Dear Dr. Reed,

I am writing to propose a new graduate course, ESSM 604, Changing Natural Resource Policy. This course will be stacked with ESSM 404, an advanced undergraduate class with the same title. I taught this class in the fall semester of 2014 as ESSM 489/689, and it enrolled 3 graduate students and 15 undergraduates.

Changing Natural Resource Policy is a seminar-based class. Students are responsible for writing weekly reading responses, and we have extensive in-class discussions on the theory and practice of changing natural resource policies, drawing on historical examples from the US and other countries. In addition, students work in teams to implement a strategy to change a local environment. In 2014 one team worked with Keep Brazos Beautiful to develop a curriculum for educating local school children about water conservation, while another team worked with the campus office of emergency management to develop better knowledge about mitigating the risks of fracking and gas leaks on campus. Graduate students in the course were responsible for writing an extensive background research paper on their team’s topic. Guest speakers, including a neighborhood activist from Houston and a forest industry lobbyist from Austin, provided on-the-ground views on the topics we covered in the readings, discussions and projects. I am looking forward to enhancing the integration of guest speakers who work to change environmental policies here in Texas as my own knowledge of environmental policy issues in the state grows.

In addition to attracting students from ESSM and other natural resource oriented departments, I anticipate drawing some students from the Bush School; one enrolled in the fall 2014 course.

Thank you for considering this request. Please contact me if additional information is required.

Forrest Fleischman
Assistant Professor, Department of Ecosystem Science & Management

213 Kleberg Center
2138 TAMU
College Station, Texas 77843
tel. 979.845.5579 | fax. 979.845.6430 | http://essm.tamu.edu
To: Dr. Forrest Fleischman

From: Dr. Ann Bowmari and Dr. Kent Portney

Subject: Proposed Course ESSM 604

Date: September 23, 2015

We have reviewed the syllabus for the proposed graduate course, ESSM 604—Changing Natural Resource Policy, and we do not find any areas of significant overlap with courses taught in the Bush School, such as PSAA 606—Environmental Policy and Management.

We support the creation of ESSM 604 as proposed. We believe it will be an important addition to TAMU’s offerings in environmental and natural resource policy.
Course title and number  ESSM 404/604, Changing Natural Resource Policy (3-0). Credit 3
Term  Fall 2016
Meeting times and Location  Lecture T&R 11:10 p.m.-12:25pm ANIN317

Course Description and Prerequisites

Students will study the process through which environmental policies are changed; study theories of social and political change; teams use those theories along with their original research on environmental policy problems to create and implement plans for changing environmental policies in their own communities.

Prerequisites for ESSM 404: Junior or senior classification, or approval of instructor.
Prerequisites for ESSM 604: Graduate classification or approval of instructor.

Learning Outcomes or Course Objectives

PLO 7: Design management strategies for restoring and sustaining ecosystem goods and services and adaptive management concepts.
PLO 8: Interpret socio-economic and business environments relevant to ecosystem management.
PLO 9: Assess past, present, and future policy options relevant to ecosystems.
PLO 10: Illustrate critical thinking and demonstrate problem solving skills.
PLO 11: Demonstrate an ability to acquire, interpret, and present conclusions orally and in writing.
PLO 12: Demonstrate the ability to work collaboratively in teams and exercise leadership skills on projects.
PLO 13: Demonstrate environmental stewardship and professional and ethical behavior.
PLO 14: Recognize the need for lifelong learning and exhibit the skills necessary to acquire, organize, and reorganize new knowledge
PLO 15: Demonstrate civic responsibility and global citizenship

Instructor Information

Name  Dr. Forrest Fleischman
Telephone number  979-862-1071 Office (please note that email is preferred)
Email address  forrestf@tamu.edu
Office hours  Wednesday & Thursday, 1:30-3:30 pm or by Appointment
Office location  310 HFSB
Assessment, Grading & Course Structure

During the first week of the class, students will participate in a facilitated brainstorming exercise, in which they will self-select into teams of 4-6 students who will work together for the remainder of the semester to develop and implement a plan to change an environmental policy of their choosing. Students will be guided towards focusing on problems which are tractable within the limits of a semester: Solving global warming is probably not tractable in a semester, but changing the way energy is used on campus may be.

Assessment will be divided up into individually-based assessment and team-based assessment. Individual assessment will focus on weekly reading responses and/or reflections on the learning process, due 3 hours before the week’s first class (12 in total, plus one final reflection for 13). Team assessments will assess the quality of team-produced outputs including (a) a problem statement (b) an action plan, and (c) a report on the action taken. All three of these will require both written & oral presentation. Students will have an opportunity to grade their peers, and this will be used to adjust individual grades (i.e. a portion of the grade for each team assignment will be assigned by peers).

Additional requirements for graduate students:
Graduate students will also be required to write a background research paper that will serve as a basis for their team’s action, but bring scholarly literature to bear on the question. An initial draft, due early in the semester, will provide the basis for more polished revisions.

Grading Policies

Undergraduate students

The points in the course will be assigned as follows for undergraduate students:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Number of Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly reading responses/ reflections (12 worth 25 points each)</td>
<td>300</td>
</tr>
<tr>
<td>Written Problem statement</td>
<td>125</td>
</tr>
<tr>
<td>Problem statement presentation</td>
<td>50</td>
</tr>
<tr>
<td>Written Action Plan</td>
<td>175</td>
</tr>
<tr>
<td>Action plan presentation</td>
<td>50</td>
</tr>
<tr>
<td>Written report on action taken</td>
<td>225</td>
</tr>
<tr>
<td>Action taken presentation</td>
<td>50</td>
</tr>
<tr>
<td>Final Reflection</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>1025</td>
</tr>
</tbody>
</table>

Grading Scale
- 900-1025 = A
- 800-899 = B
- 700-799 = C
- 600-699 = D
- Below 599 = F

Note that there are 25 “extra points” in this grading scale, effectively allowing students to drop one reading response, should they feel confident in gaining the other points in the class. In the unusual case that a student has a grade between the 99 and the 00 (e.g., 899.4), conventional rounding rules will be followed (i.e., 899.4 is rounded down to 899, a B, 899.5 will be rounded up to 900, an A).
Graduate students
The points in the course will be assigned as follows for graduate students:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Number of Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly reading responses/reflections (12 worth 25 points each)</td>
<td>300</td>
</tr>
<tr>
<td>Written Problem statement</td>
<td>125</td>
</tr>
<tr>
<td>Problem statement presentation</td>
<td>50</td>
</tr>
<tr>
<td>Written Action Plan</td>
<td>175</td>
</tr>
<tr>
<td>Action plan presentation</td>
<td>50</td>
</tr>
<tr>
<td>Written report on action taken</td>
<td>225</td>
</tr>
<tr>
<td>Action taken presentation</td>
<td>50</td>
</tr>
<tr>
<td>Final Reflection</td>
<td>50</td>
</tr>
<tr>
<td>1st draft of graduate paper</td>
<td>100</td>
</tr>
<tr>
<td>Final draft of graduate paper</td>
<td>300</td>
</tr>
<tr>
<td>Total</td>
<td>1425</td>
</tr>
</tbody>
</table>

Grading Scale
- 1260-1425 = A
- 1120-1259 = B
- 980-1119 = C
- 840-979 = D
- Below 840 = F

Note that there are 25 “extra points” in this grading scale, effectively allowing students to drop one reading response, should they feel confident in gaining the other points in the class. In the unusual case that a student has a grade between the 9 and the 0, (e.g., 1259.4), conventional rounding rules will be followed (i.e., 1259.4 is rounded down to 1259, a B, 1259.5 is rounded up to 1260, an A).

Attendance and Late Work Policy

The University views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located on-line at [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07). Regular attendance in this class is necessary for success, and students who have excused absences should contact the instructor as soon as possible to arrange for make up work.

Students who hand in assignments after the time it is due will receive 50% credit for the assignment if completed and handed in within 24 hours of the due date, after which it will receive a zero. Please note that the grading rubric contains 25 “extra points”, effectively allowing students to drop one reading response for the term without penalty. Late work will be accepted in the case of a University Excused Absence with no penalty. There will be no makeup for missed exams, except in the case of a University Excused Absence. Extensions will only be granted in extenuating circumstances.
Textbook and/or Resource/Reading Material

All readings apart from the course textbooks will be posted on eCampus. One textbook is required for all students: Graham, B. H. C. (2010). *America, the owner’s manual: making government work for you*. Washington, D.C.: CQ Press. Please note that you may be able to find very inexpensive used copies of this book online.

Graduate Students are recommended to obtain *Theories of the Policy Process*, 3rd edition, edited by Paul Sabatier & Chris Weible.

Other Pertinent Course Information

You are allowed to use electronic devices during class time for appropriate purposes (i.e. writing, working with students). Inappropriate use of electronic devices (i.e. for purposes not related to the class) is disrespectful and disruptive. If inappropriate use is frequent, this privilege will be suspended.

Americans with Disabilities Act (ADA)

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

Academic Integrity

You are expected to follow the Aggie Honor code. For additional information please visit: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu). “An Aggie does not lie, cheat, or steal, or tolerate those who do.”
Course Outline

Week 1 (August 29–Sept. 2): Course Introduction, topic brainstorm

Week 2 (Sept. 5–9): Overview of approaches to policy change (part 1)

Week 3 (Sept. 12–16): Action Research.

Week 4 (Sept. 19–23): Overview of approaches (part 2)
Problem statement presentations in class.

Week 5 (Sept. 26–30): Communication & Issue framing.
Problem statements due before class September 27.

Week 6 (Oct. 3–7): Political Strategies.
1st draft of graduate student background papers due October 4.

Strategy presentations in class

Strategies due Oct 18.

- Selections from Houck, Oliver A. (2010). *Taking back Eden eight environmental cases that changed the world*. Washington, DC: Island Press. (Storm King & Trillium)


Week 10 (Oct. 31–Nov. 4): Grassroots social organizing


Week 11 (Nov. 7–11): Nonviolent direct action (1)

- Thoreau, H.D. *Civil Disobedience*

Week 12 (Nov. 14–18): Nonviolent Direct Action (2)


Week 13: (Nov. 21–25): Thanksgiving break: No class

Week 14: (Nov. 28–Dec. 2): **Presentations of action**

Week 15: LAST DAY OF CLASS: DEC. 6

Action write-ups due. Final reflections due. Final papers due for graduate students on last day of classes at midnight.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: ☑️ Graduate
2. Request submitted by (Department or Program Name): Department of Finance
3. Course prefix, number and complete title of course: FINC 678 Real Estate Analytics
4. Catalog course description (not to exceed 50 words): Specialized training for the real estate finance industry including Excel, Argus, and GIS software. Classification 6 students may not enroll in this course.

5. Prerequisite(s): Enrollment restricted to Master of Real Estate students only.

Cross-listed with: Stacked with:

6. Is this a variable credit course? ☑️ No
7. Is this a repeatable course? ☑️ No

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

If yes, from ______ to ______
If yes, this course may be taken ______ times.

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

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

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

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

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

13. FINC 678
    REAL ESTATE ANALYTICS

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>HCL Code</th>
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</thead>
<tbody>
<tr>
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<td>0.00</td>
<td>1.00</td>
<td>5215010016</td>
<td>1110</td>
<td>16</td>
<td>0 0 3 6 3 2</td>
</tr>
</tbody>
</table>

Approval recommended by:

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

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

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Date Effective Date

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

Class Meeting time  MTWRF 8:00am – 5:00pm

NOTE: Course meets the week prior to the first week of spring semester

Credit Hours: One
Classroom: Wehner 184 or other Computer Labs
Instructor: John Russell Peterson

Office and Hours: Wehner 351G
               TBD
E-mail: jpeterson@mays.tamu.edu

Office Phone: 979.862.1406
Cell Phone: 917.204.0748

Course Description and Objectives:
FINC 678 is a series of specialized trainings critical for success in the Real Estate
Finance Industry. The analytic software utilized include Excel, ARGUS and GIS.

The purpose of the course is to introduce students to information and technology systems
utilized in the real estate finance industry. Specific course objectives are to assist students in:

- Developing an appreciation for the importance of information systems available
- Developing computer skills through hands-on experience using technology tools
- Gaining an understanding of the importance of the use of information systems to provide a competitive advantage
- Becoming familiar with the capabilities and limitations of each system and when to utilize in analyzing a problem
- Explain key analytic terms used in the financial analysis of real estate
- Expose students to the resulting analysis performed and how to interpret the information
- Improve upon skill sets that are highly desired by industry

Learning outcomes:

Graduates will begin to master certain computer software programs commonly used in
the real estate industry. While students will learn at their own pace, equally important
will be the knowledge gained as to the usefulness of each of the information system’s
capabilities. For example, some students may master GIS technology and use it
frequently, but all will gain an understanding of the capabilities of the system, the
analytic information generated and interpretation of the output.
Prerequisites

Finance 678 is strictly limited to students enrolled in the Master of Real Estate Program.

Required Material

Specific course materials including the Excel modeling and ARGUS training manuals will be provided to the students.

Attendance, Assignments and Grading:

Each student is required to attend all training days. The attendance grade will be prorated based on the hours you are in class. For example, if you attend 4 of the 5 days (32 hours out of the total 40) or 80% of the total hours, your attendance score will be 80 and your max points 64 as detailed in the table below. If you miss a graded activity without a valid, documented university excuse, you will receive a grade of zero on that activity.

Grading is based on attendance and completion of activities.

<table>
<thead>
<tr>
<th>Item</th>
<th>Max Score</th>
<th>Weight</th>
<th>Max Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>100</td>
<td>80%</td>
<td>80</td>
</tr>
<tr>
<td>Activity Score</td>
<td>100</td>
<td>20%</td>
<td>20</td>
</tr>
</tbody>
</table>

Course grades will follow the standard 90/80/70/60 scale:

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

Your Activity Score is determined by participation in the exercises assigned during the training. Some of the activities will be individual work and others will be team based and the value of the activity will vary. As the objective is to have each student progress at his or her own pace, successful completion of the activity is not necessarily defined by determining a definitive answer but rather active engagement and demonstrated progress on the task assigned. Failure to actively participate in the exercise will result in a deduction of the activity score.

Your attendance and participation are not only recommended, but are essential to a successful learning experience and a passing grade. For more on attendance according to university policy, please visit the Texas A&M University Web site at:

http://student-rules.tamu.edu/rule07
KNOW THE CODE

The Honor Council Rules and Procedures may be found on the Web at http://aggiehonr.tamu.edu. It is the responsibility of both students and instructors to maintain scholastic integrity by refusing to participate in or tolerate scholastic dishonesty. Incidents of scholastic dishonesty will not be tolerated and will be prosecuted to the fullest extent possible, consistent with university policy.

Classroom Care
To maintain the high quality conditions of our Wehner Building classrooms, students must adhere to the established policies. No beverages (except water), food, tobacco products or animals (unless approved) are allowed in the WCBA classrooms. Please do not leave trash including newspapers in the classroom.

Americans with Disabilities Act (ADA) Policy Statement

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

Master of Real Estate “Winter-mester” Schedule and Topics

January 11     Excel functions tools and techniques commonly used in the real estate industry. Development modeling for all income producing properties.

January 12     Private equity fund structure basics including the general legal structure of U.S. based funds. Modeling joint venture properties for individual property transactions. Private equity fund modeling at the fund, general partner, limited partner levels. Key analytics such as IRR and equity multiples.

January 13     Introduction to ARGUS Enterprise and ARGUS Developer. Data input. Generating excel cash flow and analytic reports.

January 14     Case examples in ARGUS

January 15     Introduction to GIS Systems. Explanation of data available for populating reports or maps. Analysis of information generated by the system. Sample case to analyze in teams
Texas A&M University
Department Request for a New Course
Undergraduate + Graduate + Professional
Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: □ Undergraduate □ Graduate □ First Professional (DDE, MD, JD, PharmD, DVM)
2. Request submitted by / Department or Program Name: Select or Type Department/Program Name
3. Course prefix, number and complete title of course: FSTC 670: Quality Assurance For The Food Industry
4. Catalog course description (not to exceed 50 words):
   Principles of food system process control including statistical process control (SPC) and the "tools" required to assure uniform communication and understanding of quality assurance systems.

5. Prerequisite(s):
   Graduate Classification
   Cross-listed with: ANSC 670
   Stacked with: FSTC/ANSC 470

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

7. Is this a repeatable course? □ Yes □ No
   If yes, this course may be taken _______ times.
   Will this course be repeated within the same semester? □ Yes □ No
   Will this course be submitted to the Core Curriculum Council? □ Yes □ No

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

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

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

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

13. Catalog Course Title: Quality Assurance Food Ind
   FSTC 670
   Credits: 3.00
   Other: 0.00
   S/U: 0.00
   GPR: 010901005
   Credit Limit: 6
   Year-1: 16
   Year-2: 17
   HCL Code: 0 0 3 6 1 2
   Approval recommended by:
   Boon Chow 9/26/15
   H. Russell Cross 9/26/15
   Department Head or Program Chair (Type Name & Sign) Date
   Chair, College Review Committee Date
   Dean of College Date

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

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
ANSC/FSTC 470/670 - QUALITY ASSURANCE FOR THE FOOD INDUSTRY - FALL SEMESTER 2016

INSTRUCTOR: W.N. Osburn
338D Kleberg; Ph: 979-845-3989; E-mail: osburnw@tamu.edu
Office Hours: Fridays 10-12:00 or By Appointment.

LECTURE:
TTH 8:00-9:15; KLCT 300

OBJECTIVES:
1. To provide an understanding of the principles of quality and primary strategies for implementation of Quality Systems in the food industry.
2. To provide a fundamental basis for the principles of food system process control including statistical process control (SPC) and the "tools" required to assure uniform communication and understanding of quality assurance systems.
3. Use quality teams to provide knowledge and application of philosophical and analytical tools required for successful implementation of quality assurance programs in the food industry.

STUDENT LEARNING OUTCOMES:
By the end of this course, students will be able to
1. Apply critical thinking skills to define a problem, identify potential causes and possible solutions, and make thoughtful recommendations.
2. Work as a member of a team to solve a problem and report findings via oral and written communication.
3. Develop product standards and specifications.
4. Use statistical process control techniques to construct control charts.
5. Explain the interrelationship between food safety and quality systems.

SUPPLEMENTAL READING (No required texts)
Covey, S. 1989. The Seven Habits of Highly Effective People, Simon & Schuster. NY.
Specific readings will be established for classroom discussion.

Grading and Class Assignments/Projects:
All students must take three class exams and one class final.

<table>
<thead>
<tr>
<th>Exam dates</th>
<th>Class Exams (All Students)</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 20XX</td>
<td>Exam 1</td>
<td>100</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Exam 2</td>
<td>100</td>
</tr>
<tr>
<td>Dec 20XX</td>
<td>Exam 3, Exam 4 (Final)</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date Due</th>
<th>Specific Undergraduate Student Assignments</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 20XX</td>
<td>Quality Guru Paper(U6)</td>
<td>100</td>
</tr>
<tr>
<td>Variable dates</td>
<td>SPC Quality Problem Solving Homework</td>
<td>100</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Team Quality Problem Solving Project Report</td>
<td>50</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Team Quality Problem Solving Project Presentation</td>
<td>50</td>
</tr>
<tr>
<td>Dec 20XX</td>
<td>Personal Mission Statement</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Participation and Class Attendance</td>
<td>50</td>
</tr>
</tbody>
</table>
**ANSC/FSTC 470/670 - Quality Assurance in the Food Industry**

<table>
<thead>
<tr>
<th>Date Due</th>
<th>Specific Graduate Student Assignments</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Variable Dates</td>
<td>SPC Quality Problem Solving Homework</td>
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<tr>
<td>Nov 20XX</td>
<td>Team Quality Problem Solving Project Report</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Team Quality Problem Solving Project Presentations</td>
<td>50</td>
</tr>
<tr>
<td>Nov 20XX</td>
<td>Food System Research Paper</td>
<td>100</td>
</tr>
<tr>
<td>Dec 20XX</td>
<td>Personal Mission Statement</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Participation and Class Attendance</td>
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<tr>
<td>Total Points</td>
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<td>800 (UG)/800 (G)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>% of Total Points</th>
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<th>800 Points Max (Graduate)</th>
<th>Final Grade</th>
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<tr>
<td>90-100%</td>
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<td>720-800</td>
<td>A</td>
</tr>
<tr>
<td>80-89%</td>
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<td>640-719</td>
<td>B</td>
</tr>
<tr>
<td>70-79%</td>
<td>560-639</td>
<td>560-639</td>
<td>C</td>
</tr>
<tr>
<td>60-69%</td>
<td>480-559</td>
<td>480-559</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60%</td>
<td>479 or less</td>
<td>479 or less</td>
<td>F</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF UNDERGRADUATE STUDENT ASSIGNMENTS:** The following assignments are requirements for undergraduate students in this course.

**a) Assignment I: “Quality Guru” paper**
Students will select one “founder” or “guru” of “Quality Systems” and write a one to two page paper on how their philosophy of quality impacted current quality management systems.

**b) Assignment II: Statistical Process Control**
Take home assignments on statistical process control (SPC) include calculations of Z values and process capability and construction of X-bar and R charts, Np charts, etc. Dates vary during the semester.

**c) Assignment III: Team Project Report and Presentation Assignment**
1. You will be formed into Quality Improvement Teams (3-4 persons per team)
2. Each team will be given a scenario with a dataset involving quality issues or problems of a specific food product (Dairy, cereals and grains, fruits and vegetables, muscle foods, etc.).
3. Utilizing the scenario information, plus skills learned in lecture and lab (Team problem solving, Tools of quality, SPC) your team is to use the six step problem solving process to:
   a. utilize data provided to construct statistical process control charts;
   b. from the control charts and information given - identify and define the problem,
   c. determine the cause(s) of the problem based on your statistical analysis,
   d. generate potential solutions to solve the cause(s) of the problem,
   e. analyze each potential solution for its advantages and disadvantages,
   f. recommend the “best” solution (feasible, suitable, cost effective, etc.), and
   g. develop an action plan and timeline for implementing the proposed solution and how the solution will be evaluated to determine its effectiveness.
4. Each team will prepare a written report and PowerPoint slide presentation to the fictional Chief Operating Officer and/or President of the respective company that you are working for.
5. A separate handout detailing what is expected of each team will be provided.

**d) Assignment IV: Mission Statement Preparation (Covey).**
Each student will be responsible to develop and critique a personal mission statement using the principles and procedures outlined by Covey. This statement will be required and will be based on software program materials to be made available for student use found at the address:
DESCRIPTION OF GRADUATE STUDENT ASSIGNMENTS: The following assignments are requirements for graduate students in this course.

a) Assignment I: Quality Food Systems Research Paper
Students will write a research proposal framework/outline for an eight to ten page research paper explaining how quality management systems can be used to solve a specific food production system (dairy, fruits and vegetables, cereal grains, muscle foods, beef, pork or poultry production systems, etc.) problem area and explain how the application of quality systems principles could positively impact the quality and/or efficiency of that food system.

b) Assignment II: Statistical Process Control
Several take home assignment on statistical process control (SPC). Assignments will include calculations of Z values and process capability and construction of X-bar and R charts, Np charts, etc. Dates vary throughout the semester.

c) Assignment III: Team Project Report and Presentation Assignment
1. You will be formed into Quality Improvement Teams (3-4 persons per team)
2. Each graduate student team must collect their own dataset to be used to develop SPC charts and identifying areas for quality improvements. This dataset can be from research projects or collected from various Animal Science/Food Science facilities (Meat Science Center, Extrusion Lab, etc.) or other food/campus entity.
3. Utilizing the scenario information, plus skills learned in lecture and lab (Team problem solving, Tools of quality, SPC) your team is to use the six step problem solving process to:
   a. utilize data provided to construct statistical process control charts;
   b. from the control charts and information given - identify and define the problem,
   c. determine the cause(s) of the problem based on your statistical analysis,
   d. generate potential solutions to solve the cause(s) of the problem,
   e. analyze each potential solution for its advantages and disadvantages,
   f. recommend the "best" solution (feasible, suitable, cost effective, etc.), and
   g. develop an action plan and timeline for implementing the proposed solution and how the solution will be evaluated to determine its effectiveness.
4. Each team will prepare a written report and PowerPoint slide presentation to the fictional Chief Operating Officer and/or President of the respective company that you are working for.
5. A separate handout detailing what is expected of each team will be provided.

d) Assignment IV: Mission Statement Preparation (Covey).
Each student will be responsible to develop and critique a personal mission statement using the principles and procedures outlined by Covey. This statement will be required and will be based on software program materials to be made available for student use found at the address:
TOPICS FOR CLASS LECTURE & DISCUSSION:

I. Principles for Total Quality Management
   a. Defining Quality
   b. Philosophies - Deming, Crosby, Juran, Shewhart

II. Quality Leadership
    a. Project team development
    b. Quality Improvement Cycle
    c. Teambuilding, Communication and Interpersonal Skills

III. Quality Problem Solving
     a. Quality Problem Solving and Management
     b. Problem Solving Process
        i. Problem Identification, Definition, Diagnosis
        ii. Alternative Generation and Evaluation
     c. Types of Quality Problem
        i. Conformance and Efficiency Problems
        ii. Product Design and Process Problems
     d. Team Problem Solving
        i. Blueprint for successful teams
        ii. Conflict Resolution

IV. Quality Management Systems
    a. Total Quality Management
    b. ISO 9000, FSC 22000, SQF, BRC
    c. Six Sigma and Lean Manufacturing

V. The Quality Improvement Process
   a. The Ten-Step Quality Improvement Process

VI. Statistical Process Control
    a. Variation and distributions
    b. Central tendency
    c. Probability and hypothesis testing
    d. Control charts
       i. X bar and R charts
       ii. \( P, np \) and \( c \) charts
    e. Process capability

VII. The Quality Tool Box - Selected Tools for Continuous Quality Improvement
     a. Project Planning and Implementation Tools
     b. Data Collection and Analysis Tools
     c. Evaluation and Decision-Making Tools

VIII. Applications of Quality Improvement
      a. Team Project Report and Presentations

IX. Interrelationship Between Quality Assurance/Control and Food Safety Programs
<table>
<thead>
<tr>
<th>Lecture</th>
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<td>1</td>
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<td>History of Quality</td>
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<td>3</td>
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<td>Quality Leadership - Team Building - Undergraduate Quality Gurus Paper Due</td>
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<td>Quality Management Systems</td>
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<td>Statistical Process Control - Interrelationship Between Quality Assurance/Control and Food Safety Programs</td>
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<td>Team Project Assignments and Scenarios</td>
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<td>Interrelationship Between Quality Assurance/Control and Food Safety Programs</td>
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<td>18</td>
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<td>Team Project Data Development</td>
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<td>Team Project Presentations and Final Reports Due</td>
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<td>7 Habits Of Highly Effective People</td>
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<td>Prep for BRC/SQF training - Class Evaluations</td>
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<td>Final Exam</td>
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**COURSE REQUIREMENTS**

*Attendance:* Since student participation during discussion sessions is an important aspect of this course, students are expected to attend all sessions. Attendance will be documented using an attendance sheet that must be signed by students in class. Absences will be excused only upon approval of instructors in advance of the class session in question. Five points per unexcused absence will be deducted from your final grade. For more information see TAMU Student Rule 7 – Attendance: [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)
Make-up Work/Auditing Policy

Regular attendance and participation in the course is expected of all students. Anticipated absences should be cleared with the instructor prior to the absence, if possible. Emergency absences (serious illness, injury, death, etc.) should be reported as soon as possible. An excuse may be necessary for more than three absences. Those students auditing the course are expected to participate in all class sessions. Make-up work will be allowed under extenuating circumstances for which written excuses are provided.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 979-845-1637. For additional information visit http://disability.tamu.edu.

Academic Integrity and Honesty

It is the personal responsibility of each student to maintain the highest level of scholastic integrity at the university by refusing to participate in or tolerate any form of scholastic dishonesty. Additional information may be obtained from the Student Handbook or at the Handbook website http://student-rules.tamu.edu/index.htm, http://student-rules.tamu.edu/rules20.htm.

Copyright

The handouts used in this course are copyrighted. By "handout", I mean all materials generated for this class, which include but are not limited to syllabi, in-class materials, and handouts. You do not have the right to copy the handouts, unless I expressly grant permission.

Plagiarism

Plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. You are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues.

Aggie Code of Honor

For many years, Aggies have followed a Code of Honor in an effort to unify the aims of all Aggies toward a high code of ethics and dignity. It functions as a symbol to all Aggies, promoting understanding and loyalty in truth and confidence in each other. “Aggies do not lie, cheat or steal; or tolerate those who do.” If you have any questions regarding plagiarism or cheating, please consult the Texas A&M University Student Rules, under the section Scholastic Dishonesty. http://aggiehonor.tamu.edu.
Texas A&M University  
Departmental Request for a New Course  
Undergraduate • Graduate • Professional  
* Submit original form and attach a course syllabus.*

Form Instructions

1. Course request type:  
   - [ ] Undergraduate  
   - [ ] Graduate  
   - [ ] First Professional  

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

3. Course prefix, number and complete title of course:  
   GENE 602 Introduction to Genetic Model Systems

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

5. Prerequisite(s):  
   None

   Cross-listed with:  
   
   Stacked with:  

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

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

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

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

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

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

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

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

13. GENE 602 GENETIC MODEL SYSTEMS

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   Approval recommended by:  
   Craig J. Coates

   Department Head or Program Chair (Name & Sign)  
   Date

   Chair, College Review Committee
   Date

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

   Dean of College
   Date

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

   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.  
Curricular Services – 07/14
GENE 602
Critical Analysis of Genetic Literature
Introduction to Major Genetic Model Systems (MSs)

Course coordinator: Hubert Amrein (amrein@tamuhs.edu), (979) 845-6742; 242 Reynolds Medical Bldg; Office Hours by appointment.

Instructors: Michael Polymenis, Dorothy Shippen, Rene Garcia, Hubert Amrein, Bruce Riley, David Threadgill

Time & Location: Mondays 5:15 – 6:45pm ILSB 3119

Course Description: Gene 608 is designed to introduce first and second year graduate students to the main eukaryotic genetic model systems (MS): yeast, C. elegans, Arabidopsis, Drosophila, zebrafish, mouse. The course is organized in six sections, each dealing with one of the classical MSs, which are all used in numerous laboratories of Genetics faculty.

Learning Outcomes:
1. Students will be exposed to the MSs and will be able to describe the following:
   - Basics of development and biology of MSs
   - Major discoveries that propelled each MS into the mainstream
   - Major genetic tools of each MS, especially those unique to it

2: Students will improve their critical thinking skills, which they will demonstrate by being able to:
   - Succinctly state the goals of the study
   - Identify the rationale behind experiments
   - Analyze the strengths and weaknesses of the paper

Grading:
Grades will be based on the following scale:
A – 90-100 Points
B – 80-89 Points
C – 70-79 Points
D – 60-69 Points
F - <= 59 Points

Participation: Students are required to attend 13 of 14 classes to gain full credit for participation (40 points). Each additional absence from class reduces their score by 5 points per absence. Excused Absences will be allowed without a point penalty as dictated by student rule 7 http://student-rules.tamu.edu/rule07

Written Essay/Paper Presentation: Each Instructor will assign up to 10 Points for a total of up to 60 points.
Resources: There are several “How to Read a Scientific Article” resources online. Students are encouraged to consult the following websites.

http://www.ownet.rice.edu/~cainpro/courses/HowToReadSciArticle.pdf
http://web.stanford.edu/~siegelr/readingsci.htm

Class schedule:

<table>
<thead>
<tr>
<th>Lecture/model</th>
<th>Week</th>
<th>Lecturer</th>
<th>Content</th>
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<tr>
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<td>1</td>
<td>PM SD GR KJ* RB TD</td>
<td>Introduction of lecturers and model systems</td>
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<tr>
<td>1 Yeast</td>
<td>2</td>
<td>PM</td>
<td>Human-yeast gene replacements</td>
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<tr>
<td>2 Yeast</td>
<td>3</td>
<td>PM</td>
<td>Genetic screens with conditional alleles, classic and modern</td>
</tr>
<tr>
<td>3 Arabidopsis</td>
<td>4</td>
<td>SD</td>
<td>Introduction to Arabidopsis</td>
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<td>4 Arabidopsis</td>
<td>5</td>
<td>SD</td>
<td>Paper discussion: Harnessing the power of Arabidopsis genetics</td>
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<td>5 Caenorhabditis</td>
<td>6</td>
<td>GR</td>
<td>See below</td>
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<td>6 Caenorhabditis</td>
<td>7</td>
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<td>8 Drosophila</td>
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<td>Classical Genetics</td>
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<td>AH</td>
<td>Modern Molec Genetics</td>
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<td>10 Drosophila</td>
<td>11</td>
<td>AH</td>
<td>Paper discussion</td>
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<td>11 Zebrafish</td>
<td>12</td>
<td>RB</td>
<td>Introduction to zebrafish</td>
</tr>
<tr>
<td>12 Zebrafish</td>
<td>13</td>
<td>RB</td>
<td>Combining zebrafish tools to resolve core issues in early vertebrate development.</td>
</tr>
<tr>
<td>13 Mouse</td>
<td>14</td>
<td>TD</td>
<td>Introduction to Mouse</td>
</tr>
<tr>
<td>14 Mouse</td>
<td>15</td>
<td>TD</td>
<td>Paper discussion</td>
</tr>
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</table>

Lecturers
PM: Polymenis, Michael, PhD
SD: Shipper Dorothy, PhD
GR: Garcia, Rene, PhD
AH: Amrein, Hubert, PhD
RB: Riley, Bruce, PhD
TD: Threadgill, David, PhD
KJ* Karpac, Jason, PhD (will introduce Drosophila; AH out of town)

American with Disabilities Act (ADA)
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B1188, or call 845-1637. For additional information visit http://disability.tamu.edu.
Academic Integrity
For additional information please visit: http://www.tamu.edu/aggiehonor
"An Aggie does not lie, cheat, or steal, or tolerate those who do."

Information about specific lectures

Yeast (Michael Polymenis)

Lecture 1:
- Overview of the life cycle of S. cerevisiae.
- Highlight advantageous experimental properties, such as:
  1. High efficiency of homologous recombination
  2. Isolation of all gametes from an individual meiosis
  3. Conservation of basic cellular processes
  4. Unique morphological features, allowing non-invasive monitoring of cell cycle progression.

Lecture 2:
- Case studies for the above:
  1. A genome wide replacement of yeast genes with human orthologs, (see http://www.sciencemag.org/content/348/6237/921.long). This paper uses many of the tools available for gene replacement, and demonstrates the conservation of fundamental eukaryotic cellular machines.
  2. Genetic dissection of the cell cycle. The Hartwell cdc screen (http://www.sciencemag.org/content/183/4120/46.long). This is the Nobel Prize winning screen. An excellent example of using conditional mutants to probe processes essential for life, and a demonstration of the unique cell cycle morphology of yeast. The accompanying paper (http://www.ncbi.nlm.nih.gov/pubmed/16943325), is an illustration of how one goes about the same problem with the tools of the post-genomic era.
Arabidopsis thaliana (Dorothy Shippen)

Lecture 1: Introduction to Arabidopsis
Class Format: Lecture
1. Arabidopsis life cycle with emphasis on flower development
2. Genetic and molecular tools in Arabidopsis
3. The impact of Arabidopsis on human medicine

Assigned reading:

Lecture 2: The awesome power of Arabidopsis genetics
Class format: Collaborative Presentation.
Each student will be assigned a specific section/aspect of the primary research paper and must give a presentation to the class on that topic. Additionally, they must turn in a written essay re-explaining the assigned topic.

Assigned reading:
Primary research paper:

Commentary/Review articles:

Caenorhabditis elegans (Rene Garcia)

Lecture 1:
Overview of how different idiosyncratic facets of C. elegans Biology are used to address general biological questions.
1. Invariant developmental program in embryology.
3. Nutritional sensing and diapause developmental programs
4. Hermaphroditic and copulatory sexual mechanisms
5. Post reproductive biology and aging

Lecture 2:
Genetic and molecular tools used in C. elegans research
1. Microscopy inspection of cellular events.
2. Laser ablation analysis
3. Forward genetic analysis using chemical mutagenesis.
   a. Design and analysis
4. Reverse genetic tools.
   a. RNAi and CRISPR knock-outs and knock-ins.
5. Agonist and antagonist pharmacology
6. in vivo Calcium Imaging, optogenetics, and behavioral assays.

Lecture 3:
Collaborative Presentation. Each student will be given a specific section of the paper and must give a 5-8 minute chalk talk presentation on explaining the experiment design of their section. Additionally, they must turn in a written essay re-explaining the methodology, results and interpretation of the section.
Drosophila melanogaster (Hubert Amrein)

Lecture 1: Classic Drosophila genetics
- Overview over basic Drosophila biology: embryonic development, larval growth stage, metamorphosis (imaginal discs, reorganization of body plan)
- Genetic tools (classic genetics): mutations, saturation mutagenesis, balancers, polytene chromosomes, gene/deficiency mapping, P-elements (Morgan, TH, Nobel Prize in Medicine 1915)
- Classic Genetic screen to identify genes controlling early development (Wieschaus EF/Nuesslein-Volhard C, Nobel-Prize in Medicine 1995) and the use of the compound eye as a model system for Genetic screens (Rubin lab et al)

Lecture 2: Modern Molecular Genetics
- Molecular genetic tools: transgenesis, reverse genetic screens, gene traps, repressor/enhancer screens, targeted deletions (piggyback); GAL4 system, Q system
- Homologous recombination, gene-knock outs/knock-ins, CRISPR
- MARCM technique (Molecular Analysis with Repressible Cell Marker): dissecting neural circuitry
- Life imaging techniques: cell migration in embryo (gfp); Ca2+ imaging in vivo in various neurons both in the brain and periphery

Lecture 3: Paper discussion
- Paper discussion (1 or 2 papers selected; depending on number of students).
- Each student gets a specific assignment to discuss specific aspects of the paper in a 1 page brief, to be submitted prior to lecture 3)
- Each student is prepared to discuss any of the figures of the assigned paper, as well as respond to more general questions handed out to the entire class after lecture 2.
Danio rerio (Bruce Riley)

Lecture 1
- Overview of the zebrafish model system
  Biological attributes
  Current status
- Evolutionary considerations
  Whole genome duplications in the vertebrate lineage
  Common fates of duplicated genes
  Broad conservation of structure/function
- Forward screens
  Advantages and historical significance
- Reverse genetics – Morpholinos, TALENs, CRISPRs, Cre-Lox
  Current status, ongoing debates
- Transgenesis – Reporter lines, gene misexpression
  Heat shock, Gal4-UAS
- “Chemical genetics” - small molecule screens
  Regenerative medicine, cancer biology

Lecture 2
Paper discussion (tba)
Mus musculus (David Threadgill)

Lecture 1: Introduction to Mouse
Class Format: Lecture
  1. Historical importance of mouse as a model
  2. Unique position as a translational model
  3. Important genetic concepts for the model including syntenic conservation, genetics, physiology, engineering and mutant screens.

Lecture 2: Paper discussion
Class format: Collaborative Presentation
Each student will be assigned a specific section/aspect of the research papers or background techniques, and must give a presentation to the class on that topic. Additionally, they must turn in a written essay re-explaining the assigned topic.

Assigned readings:
  1. Classic George Snell paper where he first described the genetics of histocompatibility using tumor transplants. Snell was awarded the Nobel Prize in Physiology or Medicine in 1980 for this work. This a landmark paper that will bring in the concepts of natural genetic variation, congenics, different types of genetic crosses, and introduction to quantitative genetics.

  2. Classic Shinya Yamanaka paper describing derivation of induced pluripotent stem cells that have characteristics of embryonic stem cells. Yamanaka won the Nobel Prize in Physiology and Medicine in 2012 for this work. This paper will cover cell-based genetic screens, embryonic stem cells, and the unique aspects of making germ line alterations in mice.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

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

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

3. Course prefix, number and complete title of course: GENE 682 Seminar Presentation

4. Catalog course description (not to exceed 50 words):
Graduate students will present their research progress and results; perform peer assessment.

5. Prerequisite(s): None

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

7. Is this a repeatable course? ☑ Yes   □ No   If yes, this course may be taken 2 times.

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

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

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

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

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

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

13. Texas  Course Title (excluding pronunciation)
    GENE 682  SEMINAR PRESENTATION

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Approval recommended by:
Craig Coates 10-16-15

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

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Course title and number  GENE 682 Seminar Presentation
Term (e.g., Fall 200X)  Fall 2016
Meeting times and location  Monday, 4pm-5.15pm

Course Description and Prerequisites

Students will present their research progress and results; as well as perform peer assessment of other student's presentations. There are no prerequisites for this course.

Learning Outcomes

1. Students will perform an oral presentation of their research progress and results.
2. Students will critique student presentations through a peer evaluation process.

Instructor Information

Name  Jerome Menet
Telephone number  458-5696
Email address  menet@tamu.edu
Office hours  By appointment
Office location  3141A ILSB

Textbook and/or Resource Material

None Required

Grading Policies

Grades will be assigned based on the following point scale.
A = 90-100
B = 80-89
C = 70-79
D = 60-69
F = <=59

Participation: Students are required to attend all of the seminar presentations to gain full credit for participation (40 points). One unexcused absence is allowed and then each additional absence from class reduces their score by 5 points per absence. Excused Absences will be allowed without a point penalty as dictated by student rule 7 [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)

Peer Assessment: Students will be provided with a rubric for critiquing other student presentations. Students will be assigned points for the quality of their peer review assessments, up to a total of 60 points.
Course Topics, Calendar of Activities, Major Assignment Dates

Seminar Presentations will be scheduled in conjunction with the Genomics and Genetics weekly seminar series. Each student will only present once during the semester.

Americans with Disabilities Act (ADA)

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Academic Integrity

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

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

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

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

3. Course prefix, number and complete title of course: Hist and Reading Seminar in Gender and Sexuality in History

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

Examines how gender and sexuality operate both as categories of identity and as analytical tools; how scholars have employed them to understand historical processes; how languages shape power relationships; how other vectors of identity (class, race, and nation) intertwine with gender and sexuality.

5. Prerequisite(s):

Cross-listed with: __________________________

Stacked with: __________________________

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

6. Is this a variable credit course? ☐ Yes ☑ No

If yes, from _________ to _________

7. Is this a repeatable course? ☑ Yes ☐ No

If yes, this course may be taken _________ times.

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

8. Will this course be submitted to the Core Curriculum Council?

☐ Yes ☑ No

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

10. This course will be:

a. required for students enrolled in the following degree programs(s) (e.g., B.A. in History)

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

M.A. and Ph.D. in History

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

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

13. Prefix Course #: Title (excluding pronunciation):

HIST 626 READING SEM GENDER/SEXUALITY

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Approval recommended by:

Dr. David Vaught

Department Head or Program Chair (Type Name & Sign) Date 10-6-15

Department Head or Program Chair (Type Name & Sign) Date (If cross-listed course) 10-12-15

Submitted to Coordinating Board by:

Associate Director, Curricular Services

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

Curricular Services – 07/14
**HIST. 626: READING SEMINAR IN GENDER AND SEXUALITY IN HISTORY**

Fall 2015  
Wednesday, 2:00-4:50 PM  
Glasscock 205

Dr. Cynthia Bouton  
207 Glasscock Bldg  
Office Hours: M, 1:00-2:00 PM  
c-bouton@tamu.edu

**Course Description**

This readings course is a graduate level introduction to current research about how gender and sexuality operate both as categories of identity and as analytical tools, and how they can help us ask broader questions about historical processes. We will consider how scholars have employed gender as a category of analysis to explore how different societies have historically defined and preserved (economically, politically, culturally, intellectually, and socially) the categories of 'man' and 'woman', how language shapes power relationships—in both personal and institutional contexts—and how other vectors of identity (like race, class, and nation) are historically intertwined with questions of gender and sexuality. We will also examine how scholars have investigated how sex (as a biological category) and sexuality (as a set of human practices) are historically constructed, often drawing on the interdisciplinary theories/methods of queer and sexuality studies.

**Format**

This course is a seminar. Its success depends on coming to class prepared to discuss the assigned readings.

**Prerequisite:**

Graduate classification

**Course Objectives:**

- Students will be able to identify and analyze a wide variety of historical methods relating to the study of Gender and Sexuality in History.
- Students will be able to present their analyses in written and oral formats.
- Students will be able to apply course lessons to their comprehensive exam and dissertation preparation.

**Learning Outcomes:**

At the end of the course, students should be able to:

- Articulate the major themes and theories in Gender and Sexuality in History
- Understand the different methodological approaches that they might use when writing historically (e.g. sociological, anthropological, cultural studies)
- Identify the historiographical trends in Gender and Sexuality in History and how major theoretical insights, new evidence, and methodological trends have shaped this field since the 1960s.
Required Books:

Assignments:
Two essays: 6-8 pages (1500-2,000 words).
Each essay will indicate the state of the field for that week’s topic: what questions have driving scholars’ exportation of this topic, and why? When did scholars begin
studying this topic, and how has their scholarship changed over time (in response to what developments within and outside academia)? This essay is not a book review of the week's readings, although you may wish to refer to its contributions to the topic under consideration. You are considering the relevant field(s).

Circulate this essay to the class the Friday before our seminar. This essay forms part of the week's reading for the entire class.

For each week you have a paper assignment, you will also lead class discussion about how the class readings contribute to the field. You should prepare discussion questions in advance.

**Attendance:** Attendance is required except in the case of university-excused absences. Please see http://student-rules.tamu.edu/rule 7.htm for current policy on university excused absences.

**Grading Assessment:**
First Essay: 30%
Second Essay: 30%
Discussion: 40%

**Grading Scale:**
A 90-100
B 80-89
C 70-79
D 60-69
F 59 and below

**COURSE SCHEDULE & READING ASSIGNMENTS**

**WEEK I**
INTRODUCTION
Editors’ notes from the first issues of the following journals: *Journal of the History of Sexuality* (1990); *Gender and History* (1989); *GLQ* (1993); *Journal of Women’s History* (1989); *Signs* (1975); *Studies in Gender and Sexuality* (2000)

**WEEK II**

**WEEK III**

**WEEK IV**

**WEEK V**

**WEEK VI**


**WEEK VII**


**WEEK VIII**


**WEEK IX**

**WEEK X**


**WEEK XI**


**WEEK XII**


*GENDER AND SEXUALITY IN HISTORY, Readings Course* (draft, 3/26/14)


**OTHER IMPORTANT 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 experience 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 B-118 Cain Hall. This phone number is 845-1637. It is the student's responsibility to contact the Department of Student Life and the professor.

**Academic Dishonesty/Plagiarism/Professionalism in the Classroom:** Texas A&M operates on an Honor System that presumes the integrity of its students. Students violate the honors policy and betray the Aggie tradition by plagiarizing or participating in other forms of academic dishonesty. Plagiarism includes failing to credit sources used in your work and/or attempting to receive credit for work performed in part or in whole by another person. The Texas A&M University Student Handbook outlines the meaning of "Academic Dishonesty and Plagiarism."

In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist is stealing and destroys trust among colleagues. Without that trust, and the safety that goes along with it, authors cannot communicate their research.

This information is available online at [http://student-rules.tamu.edu/](http://student-rules.tamu.edu/). Plagiarism is a serious offense and will result in receiving an “F” on the assignment and failing this course.

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

If you have any questions about what qualified as plagiarism, please make an appointment to see me during office hours.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: □ Undergraduate  □ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of History
3. Course prefix, number and complete title of course: Hist 627 Research Seminar in Gender and Sexuality in History
4. Catalog course description (not to exceed 50 words):
Research and writing seminar focused on topics relevant to gender and sexuality in history.

5. Prerequisite(s):

Graduate classification
Cross-listed with:

Stacked with:

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

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

M.A. and Ph.D in History

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

13. Prefix: HIST  Course #: 627  Title (excluding pronunciation): RESEARCH SEM GENDER/SEXUALITY

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Approval recommended by: [Signature]

Dr. David Vaughn  Date: 10-1-15

Department Head or Program Chair (Type Name & Sign)

Dean of College

Chair, College Review Committee  Date: 10-12-15

Chair, QM or UCC

Date: 11-5-15

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
HIST. 627: RESEARCH SEMINAR IN GENDER AND SEXUALITY IN HISTORY

Fall 2015
Tuesday, 2:00-4:50 PM
Glasscock 205

Dr. Cynthia Bouton
207 Glasscock Bldg
Office Hours: M, 1:00-2:00 PM
c-bouton@tamu.edu

Course Description
First, this is a research seminar and we will seek first to facilitate writing an article- or chapter-length research project, suitable for publication (and/or inclusion in a dissertation). By "suitable for publication" we mean a manuscript that formulates a research problem, draws on primary sources to generate a significant thesis/argument, and engages secondary literature. We will consider on a case-by-case basis other proposals for projects (such as a digital project, perhaps) that meet the standards of the genre and profession.

Second, we invite work in all epochs, spaces, and topics. We will begin the seminar by considering what sorts of questions scholars in the field of gender and sexuality in history are studying. To do this we will analyze recent articles and journals that publish in these fields: to see what scholars are doing, to understand how to find a journal appropriate for your questions, and to learn how to prepare a submission for a specific journal. Then, I will ask students to propose specific readings (articles in journals or other contributions of similar length) and primary sources particularly appropriate for their own research.

Finally, we will work to advance each student's individual project—from proposal, to sources, to draft, to final revision—through a combination of peer reviews and individual meetings.

Prerequisites: Graduate Classification

Learning Outcomes:
The general learning goals for this course are important for your graduate education. By the end of this course you will be able to:

- Demonstrate that you have an in-depth understanding of the major methodological and theoretical approaches important to your work in Gender and Sexuality in history.
- Conduct original research.
- Communicate your research findings effectively in written and spoken presentations.
- Provide constructive feedback to your colleagues.

Required Readings:
Assignments:

- Students are expected to come to class with assigned readings completed, other assignments fulfilled, and prepared to participate in class discussions. It will be your job not only to work on your own project, but also to help other class members by providing them with thoughtful advice concerning their projects. I expect you to come to every class. The seminar depends on your collaboration.

- Writing assignments fall into two categories: 1) writing aimed at advancing your own project, and 2) writing directed toward assisting fellow classmates.
  - Your research project: to advance your project, I expect you to write: a one paragraph abstract of your research topic; prepare a prospectus and bibliography of your project; write a complete first draft of your project, including complete citations; and submit a final, revised version of your paper.
  - Other writing assignments include a peer review of other students’ prospectuses and a peer review of their draft projects.

- Oral presentations include: a report on the historical text you chose and why; a review of a particular journal that publishes material on Gender and Sexuality in history; a presentation of an article and primary source central to conceptualizing your project; and a final presentation of your project.

Grading your work:

| Participation (including presentations) | 10% |
| Peer reviews                         | 10% |
| Prospectus and bibliography          | 10% |
| First draft research paper           | 30% |
| Final research paper                 | 40% |

Only work missed for university “excused absences” can be made up. There will be a 10 point penalty for every 24 hour period the work is late. Refer to student Rule 7 for information about excused absences. http://student-rules.tamu.edu/rule7.htm It is your responsibility to find out what you missed (in-class work, announcements, etc.) if you are absent.

Grading Scale:

90-100% = A; 80-89 = B; 70-79 = C; 60-69 = D; 59 and below = F
SCHEDULE OF ASSIGNMENTS

WEEK I

Introductions
Readings:
- *Gender & History* 25th Anniversary Virtual Issue (2013)

WEEK II

Read and Discuss: Belcher, *Writing your Journal Article in 12 Weeks*

Be prepared to discuss the historical text you admire the most (preferably an article, but a book will work) and explain why you think it is well-written.

Research Topics, Methodological Approaches, and Theory
- Come to class with a one paragraph abstract of a research topic you would like to pursue in this course. We will discuss this.
- Evaluating journals appropriate for your article.

WEEK III

Discuss the function and organization of Introductions in scholarly writing.

Each student will review a journal that publishes material on Gender and Sexuality in History (such as *Gender & History; GLQ: Sexualities; Masculinities; Journal of Women's History; Feminist Studies; Journal of the History of Sexuality, Signs; Studies in Gender and Sexuality* etc.) and present this to the class.

Discuss how to identify an appropriate journal for your article.

WEEK IV

Work on your research. Meetings with Instructor.

WEEK V

Group 1 will send (no later than Sunday, Feb. 9 at 5pm) one article and one primary source that you think central to conceptualizing your project. The class will read these and the researcher will present them and lead the discussion of them.

WEEK VI

Group 2 will send (no later than Sunday, Feb. 9 at 5pm) one article and one primary source that you think central to conceptualizing your project. The class will read these and the researcher will present them and lead the discussion of them.

Discuss how to write a prospectus. Review samples on E-Campus.

WEEK VII

Work on writing prospectus and building bibliography (description...
WEEK VIII  Peer Reviews of Prospectus

WEEK IX  SPRING BREAK

WEEK X  Write! Meetings with Instructor.

WEEK XI  Write! Meetings with Instructor.
Circulate Research paper Draft no later than 5pm on Saturday
(send to Instructor)

WEEK XII  Peer Reviews of Drafts: prepare a written critique (template on separate sheet)

WEEK XIII  Discussion of Revision process
Preparing a grant proposal: Read:
Chávez, Ernesto, Miroslava Chávez-Garcia, Luis Alvarez,
“Preparing a Successful Fellowship or Grant Application,”

WEEK XIV  Work on Revisions: meet with Instructor

WEEK XV  Paper presentations and feedback
Discussion of manuscript submissions.

FINAL PAPER DUE no later than last day of final exams by 5pm.
**OTHER IMPORTANT INFORMATION**

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If you have any questions about what qualified as plagiarism, please make an appointment to see me during office hours.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

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

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

3. Course prefix, number and complete title of course:
   - Hist 638 Research Seminar in Asian History

4. Catalog course description (not to exceed 50 words):
   - Research seminar in Asian History: Social and cultural transformation of modern Asia; politics and government; wars and military affairs; imperialism and foreign relations; economic development, society, culture, religion.

5. Prerequisite(s):
   - Graduate classification
   - Cross-listed with:
   - Stacked with:

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

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

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

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

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

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

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

13. Prefix Course # Title (excluding pronunciation)
   - HIST 638 RESEARCH SEMINAR IN ASIAN HIST

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Approval recommended by:

Dr. David Vaught
Department Head or Program Chair (Type Name & Sign) Date 10-6-15

Chair, College Review Committee Date 10-12-15

Dean of College Date 11-5-15

Chair, GCC or UC Date 10-12-15

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
History 638 Research Seminar in Asian History (Fall 2016)

Dr. Olga Dror

Class Meetings: M 7:00-9:50, Glasscock 205
Office: 103D Glasscock Building
Office Hours: MW 2:30-3:30 and by appointment
Email: olgadror@tamu.edu

Prerequisite:
Graduate classification

Course Description:
This semester, HIST 638 will focus on the multiple conflicts in Southeast Asia during the second half of the 20th century. The word “Vietnam,” hardly known to most Americans before the 1960s, since then has become a symbol of national pain. How the US got involved in Vietnam, how it left Vietnam, and what happened in between – these questions will be among many others discussed in class. We will consider different views on the war in Vietnam – of both its proponents and opponents. We will remember that after all it was the “Vietnam” war and, thus, a
considerable portion of the course will focus on the country where the war took place, its history, its people, and its tragedy. Primary documents, accounts of the leading political and military figures as well as of ordinary participants, literary works, will serve as a basis for seeing the war in Vietnam from different perspectives.

**Course Objectives:**

1. Students will gain an appreciation of history as both a field of knowledge and a creative process.

2. The war in Vietnam has generally been taught from the American perspective. This course expands students’ knowledge by emphasizing the Vietnamese side of the war.

3. In studying different, often conflicting, views of the war, students will get a comparative perspective on the history of the war.

4. Students will come to understand that “Vietnam” is the name of a country of people, and not just a war.

5. Students will acquire an understanding of the intellectual demands required of historians through their own critical analysis—thinking, reading, listening, speaking, and writing.

6. Seminar participants will produce an original research paper based on primary and secondary sources and will learn the research techniques that lead to publication. The seminar will introduce students to the types of intriguing research questions that scholars of war and society are currently exploring and will help students consider new methods of interpreting and analyzing primary sources. Through instructor feedback and the peer review process, participants will develop an article with an original argument that contributes to the scholarship of the field.

**Student Learning Outcomes:** During the semester, students will:

1. Enhance their ability to ask questions of, accurately evaluate, and effectively synthesize primary and secondary historical writings.

2. Develop the ability to effectively express their own ideas in written and oral form.

3. Expand their knowledge of the historical and social contexts that created diversity in past and present human cultures.

4. Apply knowledge about the human condition—in the past and present—to their personal lives and studies.

**Required Readings:**


**Course Requirements:**

This course has three graded components: seminar participation, a research prospectus; and a 25-35 page research paper. Your final grade will be determined by the following formula:

- Participation: 5%
- Prospectus: 30%
- Final Paper: 65%

**Participation:** By joining this seminar, you have accepted my invitation to join a community of scholars who will work together to practice the research methods of historians. This course will be conducted as a seminar, where discussion, analysis, and constructive peer review will be expected from every member of the seminar. Periodically you will be asked to bring to seminar examples of primary sources, to make short oral reports on your research, or to turn in short statements of your research progress.

**Prospectus:** Early in the semester, you will develop a research prospectus that will provide a statement of your topic, your initial research questions, and a bibliography of primary and secondary sources.

**Paper:** Practicing historians produce original research aimed toward publication. Your final paper should be an article-length (25-35 pages) paper of a quality that you can aim toward eventual publication. The paper should have a clear argument, use primary source evidence to prove the argument, and demonstrate how the paper makes an original contribution to the scholarly literature.

- Students may select a topic from their individual sub-field of research and study as long as the paper contributes to scholarship in the area of war and society. Students working toward a doctorate are encouraged to use this seminar as an opportunity to produce a publishable chapter of the dissertation or to re-work portions of the master’s thesis for publication. Students in the M.A. program are encouraged to use this seminar as an opportunity to work toward a publishable chapter of the thesis or to expand significantly on an area of research in which you have already worked. If you choose to expand or make significant research revisions to work you have done previously, please provide me with a copy of your previous work.

- During the research and writing stage of this course, you will be given significant independence to work on your project without oversight and guidance from me. This autonomy can be a blessing or a curse. To succeed you will need to be self-motivated and self-disciplined: procrastination in a research seminar inevitably leads to sub-standard work. While you will generally be working on your own, please do not hesitate to contact me at any point with concerns or challenges you are facing. If you become overwhelmed, come and see me. We can work toward a solution.

- On the weeks that class does not officially meet, if you would like to meet with me one-on-one during the class meeting period, please let me know via email and I will be glad to
meet with you in my office. I will not be in my office during class time on those weeks unless I have made an appointment with a student.

**Grading Scale:**

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

**E-Campus:**

Some course communication will occur through E-Campus (http://ecampus.tamu.edu/) and you will use the course page on E-Campus to submit your paper during the peer review process, to share your final paper electronically with other seminar members, and to access your grades. The course page will serve as a venue for seminar members to post questions, ask other members for help and suggestions, and discuss research problems that arise during the semester. You can download a mobile app for E-Campus that will notify you when new information is posted.

**Due Dates and Late Policy:**

Hard copies of the research prospectus and the paper are due at the start of class on the date given in the syllabus. Since you have no other major work in this course, late papers will not be accepted unless you have made prior arrangements with me or have an emergency the day of that class meeting, in which case you have two days to communicate with me and document your emergency as per university policy (http://student-rules.tamu.edu/rule07).

**Academic Integrity**


Please note that I will flunk you for the course if you plagiarize any portion of your prospectus or paper.

**ADA: Students with Disabilities**
The Americans with Disabilities Act is a federal anti-discrimination statute that provides civil rights protection for persons with disabilities. Among other things, this legislation requires that students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If a student believes that they have a disability requiring accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Cain Hall (campus phone 845-1637). For additional information visit http://disability.tamu.edu.

Course Schedule

Sept 1 Questions and Sources Readings: Herring, 1-169; McMahon,

During this session we will discuss historical developments in the world that led to American involvement in Vietnam and the internal situation in Vietnam until 1965. We will start developing research questions that will serve as the basis for research papers and help to understand the field of war and society.

Sept 8 Questions and Sources Readings: Herring, 170-368; McMahon,

During this session we will discuss the period of direct American intervention in the war in Vietnam as well as the internal conflicts in Vietnam representing the civil war aspect of the conflict. We continue developing research questions that will serve as the basis for research papers and help to understand the field of war and society.

Sept 15 Research and Historiographical Approaches Reading: Hess

During this session we will evaluate different historiographical approaches pertaining to the fundamental questions of the war in Vietnam.

Sept 22 Research and Writing Reading: Nha Ca

During this session we work on search for original sources and on the construction of an academic article. We will practice good writing at the micro-level.

Sept 29 Community of Scholars Due: Research Prospectus

The goal for this session is to facilitate research through the feedback and shared knowledge of a community of scholars. Seminar members will make short oral presentations.

Oct 5 Community of Scholars

The goal for this session is to facilitate research through the feedback and shared knowledge of a community of scholars. Seminar members will make short oral presentations.
Oct 12-Nov 10  Independent Research (No class meetings)

Nov 17  Problem Solving
The goal for this session is to collaborate on questions, sources, methods, and problems that have arisen during the research process.

Nov 24  Peer Review  Due: First Draft
There will be no formal class meeting on this date. Seminar members will submit their first drafts electronically to their peer review groups.

Dec 1  Community of Scholars  Due: Peer Reviews
The goal of this session is to receive feedback on first drafts, collectively work on problems encountered, and to build the members’ shared knowledge of research in war and society.

Dec 8  Independent Writing (No class meeting)

Dec 12  PAPER IS DUE BY NOON
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   [ ] Undergraduate  [x] Graduate  [ ] First Professional
2. Request submitted by (Department or Program Name):
   Department of Health and Kinesiology
3. Course prefix, number and complete title of course:
   HLTH 688: Systems Thinking and Complexity in Population Health
4. Catalog course description (not to exceed 50 words):
   This course examines population health as a complex adaptive system. It delves into the theoretical underpinnings of complexity science with an emphasis in modeling and simulation. Key topics include emergence, phase transitions, tipping points, resilience, early warning signals, edge of chaos, cellular automata, fractals, system dynamics, and agent-based models.

5. Prerequisite(s):
   Cross-listed with: HLTH 605: Research Methods or similar graduate research methods course
   Stacked with: 

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

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

13. Prefix  Course #  Title (excluding punctuation)
    HLTH  688  Systems Thinking & Complexity

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<th>Lect.</th>
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<th>Admin. Unit</th>
<th>Acad. Year</th>
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Approval recommended by:
Richard Kreider
Department Head or Program Chair (Type Name & Sign) Date

George Cunningham
Chair, College Review Committee Date

Joyce Alexander
Dean of College Date

Mark Zoran
Chair, GC or UCC Date

Submitted to Coordinating Board by:
Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
SYSTEMS THINKING AND COMPLEXITY IN POPULATION HEALTH

Course Syllabus

HLTH 688
Fall 2015
W 2:00-5:00 pm
313 Blocker

Professor: Yorghos Apostolopoulos
Email: yaposto@tamu.edu
Skype: yorghos.apostolopoulos
Office Hours: by appointment

Without changing our patterns of thought, we will not be able to solve the problems we created with our current patterns of thought. ~ Albert Einstein

The twenty-first century will be the century of complexity. ~ Stephen Hawking

Public health is fueled by revolutions in life sciences, information/communication technologies, human rights, and systems thinking, allowing us to comprehend and transform complexity.
~ Julio Frank, Dean, Harvard School of Public Health

Course Description:

This course is an introduction to systems thinking and complexity in population health. It is the first in a sequence of three courses that delve into complex systems and computational simulation modeling in health: (a) Systems Thinking and Complexity in Population Health; (b) System Dynamics Modeling in Population Health; and (c) Agent-Based Modeling in Population Health. The second and third course are currently under development.

Although most disease causation is dynamic and nonlinear, population health interventions are rarely grounded in complex real-world settings. Traditional epistemology has contributed immensely to the strides made by population health sciences; however, it is not designed to capture nonlinearity or complexity. At the same time, theoretical and conceptual frameworks, research designs, methods, and analytical tools that employ systems/complexity paradigms remain underutilized and are not organically included in population health curricula and training, despite ample evidence of their potential contribution to epidemiological, intervention, and evaluation research. Addressing complexity requires the kind of thinking that acknowledges the nonlinear and dynamic nature of population health, and that questions the process of problem formulation, knowledge generation, analysis, integration, and dissemination. Many advocate that the development of systems thinking is imperative for overcoming global population health challenges because our current mental models generally ignore dynamic complexity in which such problems are entrenched.

As a foundational systems thinking and complexity course, this course will introduce you to issues central to the study of population health as a complex system. It will provide you with an overview of seminal pieces of systems/complexity literature, in order to establish an introductory but comprehensive understanding of the work that falls under the rubric of complex systems and its applications to population health. Discussion topics will include emergence, self-organized criticality, phase transitions, tipping points, resilience, edge of chaos, path dependence, cellular automata, small-world and scale-free networks, scaling, fat-tailed distributions, fractals, complex adaptive systems, modeling and simulation, system dynamics, and agent-based models.

The course is intended as an overview of systems thinking and complexity, with an introduction to modeling and simulation methodologies and analytical techniques applicable to population health. While we are all familiar with mental, conceptual, epistemological, mathematical, and statistical models, this course will shed light on the third pillar of the scientific method—computational modeling and simulation. More specifically, we will discuss why we need and use models in health research and will use computer simulation of model using software such as R, Python, LetLogo, and Vensim. Among a variety of computational
simulation techniques applicable to health problems, we will delve into system dynamics modeling and agent-based modeling. We will use these computational simulation modeling tools to answer questions such as: How can we better understand the distribution and determinants of health and disease outcomes in human populations, and inform high-leverage, sustainable interventions and policy?

You do not have to be or intend to become a systems/complexity methodologist or expert to take this course. Doctoral and advanced Master's students as well as post-doctoral fellows from diverse disciplines and departments are welcome.

Course Objectives:
Upon completion of this course, you will be able to:
(1) Articulate the limitations of the dominant paradigm underlying traditional population health research and its ramifications for sustainable interventions and policy;
(2) Effectively grapple with fundamental concepts of systems thinking and complex systems as applied to compelling questions of population health;
(3) Discuss landmark contributions to the field of complex systems and nonlinearity science;
(4) Articulate the concept of complexity and what it entails as well as the specific challenges it poses for traditional population health research and interventions;
(5) Discuss fundamental approaches, strengths, and limitations of complex systems thinking, methodologies, and analytical techniques;
(6) Explore the contribution of systems thinking and complexity science in theory-building in population health;
(7) Use system dynamics modeling and explore agent-based modeling to understand disease burden, impactful interventions, and health policy (including examples and case studies);
(8) Build and simulate your own simple models for fundamental population health research questions;
(9) Critically review the systems thinking and complex systems literature in population health sciences; and
(10) Join a community of graduate students, faculty, and researchers interested in the relevance and utility of transdisciplinary complex systems epistemology, scholarship, and cutting-edge computation.

Course Materials:
The course involves weekly readings and discussion of a wide range of research papers, selections from books, and online reports.

(1) Throughout the course, we will draw from the following books:

(2) Assigned (required and optional) journal articles, book chapters (in addition to the above list), research reports, and online readings will be uploaded every Thursday to Google Drive (HLTH 689) (further explanations will be given in class).

(3) For those with an interest in more advanced computational simulation modeling, the following books are suggested. They are among the best in systems dynamics modeling and agent-based modeling:

(4) Finally, the following books are highly recommended as supplemental readings:

MOST OF THE ABOVE BOOKS ARE AVAILABLE FOR EXAMINATION IN MY OFFICE. FEEL FREE TO STOP BY AND TAKE A LOOK BEFORE PURCHASING THEM.

Course Expectations:
• You should anticipate an average of 8-10 hours of weekly effort throughout the semester.
• This course is a student-driven, discussion-grounded class, and therefore I will not lecture. I will lead select discussions (introductory class; model building and simulation), and discussion leaders will lead the rest of our class sessions (the last two sessions will be devoted to project presentations). You are all expected to complete the readings and drive the discussions. Please refer to detailed class schedule below.
• As this is the first comprehensive systems/complexity in health course for all of you, I expect that you will be asking/answering a variety of intriguing questions. In addition, as we expect to have participants with different levels of substantive/disciplinary backgrounds (such as
HLKN faculty and faculty from other departments), we can all anticipate very engaging and constructive dialogues and exchanges.

- I expect you to share your own personal, diverse knowledge and experiences in the area of systems, complexity, and health (as well as other thematic areas) during our discussions as the opportunity and need arise.
- There is ample and useful systems- and complexity-related information on the Internet. A quick search will easily lead you to short introductions to most themes and topics we cover as well as deeper and more technical topics.

**Course Format:**

- **Readings**: Everyone needs to read and think about the required readings assigned for each session prior to class. Students are highly encouraged to read at least one or two of the optional readings and come to class prepared to discuss them. In this way there will be a few people who have read each optional reading and collectively the class will cover them all. Supplemental readings are meant only for those who want to delve even further into systems and complexity themes, concepts, methodologies, analytical tools, and their capabilities.

- **Discussion leaders**: In each session 2-3 students will serve as discussion leaders who will decide how to run the session (discussion leaders should not lecture). For example, you might summarize what you thought were some of the key points or ideas from the readings, you might provide a critique of key points, or, when applicable, you might want to find examples of particular systems (i.e., climate system tipping points) and present them to classmates. It is suggested that discussion leaders read and organize the emailed questions and comments (described below), collect last minute questions at the start of class, and then lead the group through them, with all participants adding comments, answering questions, etc. The priority for discussion leaders should be to facilitate an informative and stimulating discussion.

- **Discussion questions**: Students are required to prepare at least 2-3 questions and/or comments about each reading. The questions can be simple (e.g., a request for clarification or simple explanations) or more complex, while comments can be to express dis/agreement with some or all of the readings, or to share with the class other readings in your area of interest, or in general, that are of relevance to the class. To give discussion leaders time to organize them and to give your classmates time to read/think about your questions/comments, they must be emailed to the whole class (copying me) each Tuesday by 8:00 am. These questions, comments, and/or discussion items are intended as seeds for ongoing discussions, before, during, and after the day of readings and class time. You may also bring to class additional discussion items, open-ended questions, notes about upcoming lectures of interest, pointers to papers and web pages, or add these to emails to facilitate even deeper or more stimulating discussion.

- **Lab sessions**: While this course will be heavily based on in-depth discussions, the inclusion of lab sessions is deemed necessary to meaningfully introduce computational model building and simulation. While I intend to include more extensive, hands-on model building and simulation in the second class iteration (Fall 2016), only the basics of model building and simulation using system dynamics modeling methodologies, based on Vensim (free online, see p. 5) will be introduced this semester. In addition, a guest speaker will introduce the basics of agent-based modeling and simulation using NetLogo (free online, see p. 12).
Based on pedagogical and learning experiences and outcomes from this semester, a **Complexity in Health Discussion Forum** will be created in Spring 2016 so that HLKN and other TAMU students, faculty members, and researchers can post questions, comments, and discussion items to start a transdisciplinary dialogue on issues of systems, complexity, and computational population health. Along these lines, starting Fall 2016, HLTH 689 will have its own comprehensive website and discussion forum.

**Course Evaluation:**
There are 5 evaluation criteria, out of which 4 provide points toward your course grade. The fifth criterion is your contribution to building a Wikipedia-type internal storehouse of systems and complexity terms/concepts, which can potentially boost your overall grade in marginal cases.

(1) **Discussion leadership and participation [30 points]: All** class participants (including those who sit in/audit the course) are expected to come to class having read all required readings, completed the in-class assignments, and ready to be active participants in class discussions and exercises. To facilitate meaningful discussions, each of you will take on the role of discussion leader 4 times, which will result in a total grade for this evaluation category. Discussion leaders will be responsible for leading the discussion and may use visual aids or handouts as they see fit. Because there will be multiple discussion leaders per class period, you need to coordinate the process. All students must participate substantively in the discussions to do well.

(2) **Group paper [20 points]:** Using class-initiated readings, materials, and discussions as well as external sources, we will produce (with my active involvement) a groundbreaking, critical-review group paper tentatively titled “Mind the gap? Why systems thinking and complexity science are absent from public health curricula and training.” Our goal will be to submit this co-authored manuscript to the *American Journal of Public Health*, under the rubric of *Framing Health Matters* papers during spring 2016. The goal is to initiate a dialogue on the importance of immersion into and intersection of social, natural, and biological sciences in higher public health education. This paper (max 4,000 words) will be the first of its type in the U.S. literature, and will examine the reasons that systems thinking and complex systems epistemologies have not thus far been an integral part of current population health university programs, the subsequent substantive, methodological, and practical ramifications, as well as the potential benefits upon its incorporation as a organic part of curricula and training. [This assignment is only for those enrolled for credit.]

**Due dates:**
- October 7: One-page individual paper outline as email attachment
- December 9: Group paper presentation in class
- December 14: Complete group final paper (both electronic and hard copy)

(3) **Model building and simulation [25 points]: All** class participants are expected to select a dynamically complex Research Question (requiring my approval) and then build and simulate a **SIMPLE model**, grounded in system dynamics theory and methodologies. Steps 1-10 below will be completed using Vensim ([http://vensim.com/free-download](http://vensim.com/free-download)):
- Step 1: Define a complex health problem (within the broad area of chronic disease prevention for which you have or can find data to parameterize the model)
- Step 2: Define the model/system/problem boundary
- Step 3: Define time horizon and geographic area of the system/problem/model
- Step 4: Formalize a list of key (causal) variables (endogenous, exogenous, excluded)
- Step 5: Draw behavior-over-time graphs (or reference mode) of key (causal) variables
- Step 6: Identify stakeholders and/or community leaders
- Step 7: Develop causal loop diagram (with distinct reinforcing and balancing loops)
- Step 8: Formulate the dynamic hypothesis of the model
- Step 9: Transform the causal loop diagram into a stock-and-flow diagram
- Step 10: Calibrate and simulate model.

**Due dates:**
- October 14: Selection of Research Question
- December 2: Complete modeling and simulation exercise and class presentation

(4) **Research proposal and peer review [25 points]:** This assignment is *only for those enrolled for credit.* You are expected to write a research proposal using and comparing and/or contrasting reductionist and systems/complexity paradigms (as guiding frameworks of your proposal). The systems/complexity conceptualization and methodology used will be either system dynamics modeling or agent-based modeling (you could also use the research question you used in the modeling/simulation exercise above). **Extensive instructions and guidance will be provided throughout the semester.** The proposal (10 pages max.) should include the following sections (no need for Human Subjects section):
  A. **Introduction:** very brief proposal rationale, overall aim, specific aims, and hypotheses;
  B. **Literature Review:**
  C. **Methods:** theory/ies, conceptual framework (diagram), design, and analytical plans;
  D. **Results:** substantiated anticipated results for proposed study;
  E. **Conclusions:** interpretation of results
  F. **Key References:** not included in the 10 pages

**Due dates:**
- October 12: One-page proposal outline (including *underlined key hypotheses*) as email attachment
- December 9: Final research proposals are due prior to class (both electronic and hard copy). The complete proposal will be presented during class (using Power Points). Each presentation will be peer-reviewed in class for constructive feedback.

(5) **Systems/Complexity Wikipedia [0 points]:** To further support your ongoing learning on systems thinking and complexity science, we will collectively build a depository of key relevant terms and concepts as a reference guide that will be continually updated and improved for you and future students. We will collectively assemble a weekly list of key *systems/complexity terms and concepts* with their *very brief definitions*, thus developing our own small-scale Systems/Complexity Wikipedia. As the course unfolds, each of you can go back and edit that week’s terms and even add new terms not already there. For this reason, I have already prepared a Google Docs folder titled *Complexity Wikipedia* (further explanations will be given in class). I will periodically review the list, and we will discuss it in class on December 9.

**Course Policies:**
- **Attendance** is mandatory. Students are expected to take an active part in class discussions and all in-class exercises and assignments. If there is an emergency that requires you to miss class, you need to notify me ASAP by email prior to class. Students are responsible for providing evidence to the professor to substantiate reasons for university excused absences (see [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)). For such absences, students will be provided with the opportunity to make up assignments or other work that contributes to the final grade within a timeframe not to exceed 30 calendar days from the last day of initial absence. A 2-page summary/critique of each of the readings for the day class is missed is due to me at the start of next class. **Failure to email me your summaries/critiques will lead**
to a 5% deduction from your final grade for each class period that you miss. This is required regardless of your reasons for missing class.

- **Assignment format:** Submission guidelines for *American Journal of Public Health* need to be used for all written assignments (double space, 12 Times Roman or 11 Arial, 1” margins, including a separate cover page with name and class information). Assignments that do not meet all of these criteria will not be graded.
- **Google Drive** will be used for uploading the course syllabus, weekly readings, assignments, and other materials. It is your responsibility to regularly check the course site for updates.
- **Grading scale:** Passing grades in the course are as follows: A = 90-100, B = 80-89, and C = 70-79, D = 60-69, F < 60.

**Course Schedule:**
Topics, readings, and activities below are only indicative and tentative and are subject to changes or modifications based on class progress.

<table>
<thead>
<tr>
<th>WEEK/DATE</th>
<th>TOPICS, READINGS, AND ACTIVITIES</th>
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<tr>
<td><strong>PART I: SYMBIOSIS OF ORDER, CHAOS, AND COMPLEXITY IN POPULATION HEALTH (2 classes)</strong></td>
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<tr>
<td>Week 1</td>
<td>Course Introduction and Overview</td>
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<td>Sept 2</td>
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<td></td>
<td>- Organizational meeting</td>
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<td>- Review of course syllabus, objectives, expectations, and policies</td>
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<td>- Discussion on class participants’ expectations from the course</td>
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<td></td>
<td>- Discussion on class participants’ understanding of systems thinking, complexity, nonlinearity, complex systems, complex systems methodologies and tools and their potential contribution to the epistemology of population health sciences</td>
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<td>- Discussion on the overall state of social and population health sciences</td>
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<tr>
<td><strong>REQUIRED READINGS</strong></td>
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<td>- Jörg, T., New thinking in complexity for the social sciences/humanities (Mission statement), 2011</td>
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<td><strong>OPTIONAL (BUT RECOMMENDED) READINGS</strong></td>
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<td>- Raia, F., Students’ understanding of complex dynamic systems, 2005</td>
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<td><strong>ACTIVITIES</strong></td>
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<td><strong>Guiding questions for class discussion:</strong></td>
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<td>- What is the state of population health sciences and population health research?</td>
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<td>- Is there a need to supplement the traditional paradigm with a different, more comprehensive (complex systems) paradigm?</td>
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<td>- Are systems thinking and complexity science relevant for population health research, interventions, and evaluation?</td>
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<td>- How do you understand the potential strengths and weaknesses of complexity sciences in the context of population health?</td>
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<td>- Do we need to re-think/-conceptualize/-vise/-structure curricula and training in population health sciences and university public health education?</td>
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<td>- Do curricular rigidities and disciplinary and professional silos impede understanding of complex interrelationships in population health research, interventions, and evaluation?</td>
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<td>- Assigning discussion leaders for 9/9 class</td>
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### Week 2
#### Sept 9

**Is There an Epistemological Shift in Population Health Sciences?**

**REQUIRED READINGS**
- Fang, F.C. & A. Casadevall, Reductionistic and holistic science, 2011
- Abbott, A., Transcending general linear reality, 1988
- Higgins, J.P., Nonlinear systems in medicine, 2002
- Pearce, N. & F. Merletti, Complexity, simplicity, and epidemiology, 2006
- Galea, S., et al., Causal thinking and complex system approaches in epidemiology, 2010
- Diez Roux, A.V., Complex systems thinking and current impasses in health disparities research, 2011

**OPTIONAL (BUT RECOMMENDED) READINGS**
- Louth, J., From Newton and Newtonianism: Reductionism and the development of the social sciences, 2011
- Gershenson C., The implications of interactions for science and philosophy, 2011

**SUPPLEMENTAL READINGS**
- Kuhn, T.S., The structure of scientific revolutions, 1962
- Goodson, P., *Theory in Health Promotion Research and Practice* (select chapters), 2009
- Mainzer, K., *Thinking in Complexity* (chapter 1), 2007

**ACTIVITIES**
- Diez Roux, A.V. (video on complexity, 2013), [https://www.youtube.com/watch?v=F3Djam9wv8](https://www.youtube.com/watch?v=F3Djam9wv8)
- Assigning discussion leaders for 9/16 class

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### PART II: SYSTEMS THINKING AND COMPLEXITY: THEORETICAL UNDERPINNINGS (4 classes)

#### Week 3
#### Sept 16

**Complex Systems: History, Themes, Theories**

**REQUIRED READINGS**
- Weaver, W., Science and complexity, 1948
- Seising, R., Warren Weaver’s *Science and complexity* revisited, 2011
- Von Bertalanffy, L., *General Systems Theory* (chapters 1, 2), 1969
• Sterman, J., Making systems thinking more than a slogan, 2013, http://nbs.net/making-systems-thinking-more-than-a-slogan/
• Andersson, C., et al., Societal systems – Complex or worse? 2014
• Vicsek, T., Complexity: The bigger picture, 2002
• Gell-Mann, M., What is complexity? 1995
• McKelvey, B., Complexity science as order-creation science: New theory, new method, 2004

• Rickles, D., et al., A simple guide to chaos and complexity, 2007
• Walby, S., Complexity theory, systems theory, and multiple intersecting social inequalities, 2007
• Agar, M., Complexity theory, 1999
• Curtis, S. & M Riva, Human geographies I: Complexity theory and human health, 2010
• Glass, T.A. & M.J. McAtee, Behavioral science at the crossroads in public health: Extending horizons, envisioning the future, 2006

OPTIONAL (BUT RECOMMENDED) READINGS

SUPPLEMENTAL READINGS
• Byrne, D., Complexity Theory and the Social Sciences, 1998
• Santa Fe Institute, http://www.santafe.edu/

ACTIVITIES
• Waters Foundation, Systems Thinking
• Exercises to stretch and build learning and systems thinking capabilities (Booth Sweeney, L. & D. Meadows, The Systems Thinking Playbook, 1995)
• An Introduction to Systems Thinking (G. Midgley), https://www.youtube.com/watch?v=yYvTUs9ipmc
• Assigning discussion leaders for 9/23 class

Week 4
Sept 23
Navigating Complex Systems: Foundational Concepts

REQUIRED READINGS
• Miller, J.H. & S.E. Page, Complex Adaptive Systems, 2007 (chapters 2, 4)
• Mitchell, M., Complexity: A Guided Tour, 2011 (preface, chapters 1, 2, 7, 10, 17, & 19)
• Holland, J.H., Complexity: A Very Short Introduction, 2014 (chapters 1, 2, 5, 6, & 8)
• Byrne, D. & G. Callaghan, Complexity Theory and the Social Sciences, 2014 (introduction, conclusion, chapters 1, 2, 3, 5, 6, 7, 8, & 11)
• Ladyman, J., et al., What is a complex system? 2012

OPTIONAL (BUT RECOMMENDED) READINGS

• Alexander, M., We do complexity too! Sociology, chaos theory and complexity science, 2009
• MacKay, R.S., Management of complex systems, 2012 http://www2.warwick.ac.uk/fac/sci/maths/people/staff/slowinski/mctcxsys/pub/eccs12mctcxsys_vs.pdf

SUPPLEMENTAL READINGS

ACTIVITIES
• Page, lectures 1,3 videos (Complexity—What is it? Why does it matter?; The interesting in-between)
• Nova Science NOW, 2008, Emergence, PBS
• Nova Science NOW, 2007, Everyday examples of emergence
• Radio Lab 2007, Emergence, Radio Lab Podcast
• Page, lecture 3 video (Understanding complexity)
• Assigning discussion leaders for 9/30 class

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Week 5 Sept 30

Complex Adaptive Systems

REQUIRED READINGS
• Holland, J.H., Complexity: A Very Short Introduction, 2014 (chapter 3)
• Miller, J.H. & S.E. Page, Complex Adaptive Systems, 2007 (chapters 7, 8)
• McDaniel, R.R. Jr., et al., Implications of complex adaptive systems theory for the design of research on health care organizations, 2013

OPTIONAL (BUT RECOMMENDED) READINGS
• Shalizi, C.R., Methods and techniques of complex systems science: An overview, 2006
• Sarriot, E. & M. Kouleto, Community health systems as CAS, 2015
### SUPPLEMENTAL READINGS

### ACTIVITIES
- Nicolic, I., Complex adaptive systems (TED Talks), 2010, [https://www.youtube.com/watch?v=ISQzi_dYeBE](https://www.youtube.com/watch?v=ISQzi_dYeBE)
- Assigning discussion leaders for 10/7 class

### Week 6
#### Oct 7
**Understanding and Managing Complex Systems: Transitions and Resilience**

**REQUIRED READINGS**
- Scheffer, M., *Critical Transitions in Nature and Society* (chapters 1, 2, 3, 4, 5, 6, 12, & 17), 2009
- Trefois, C., et al., Critical transitions in chronic disease: Transferring concepts from ecology to systems medicine, 2015
- Scheffer, M., et al., Early warning signals for critical transitions, 2009
- Scheffer, M., Complex systems: Foreseeing tipping points, 2010
- Scheffer, M., et al., Anticipating critical transitions, 2012
- Van de Leemput, I.A., et al., Critical slowing down as early warning for the onset and termination of depression, 2014
- Granovetter, M., Threshold models of collective behavior, 1978
- Lenton, T.M., Early warning of climate tipping points, 2011
- O’Riordan, T. & T. Lenton, Tackling tipping points, 2011
- Deffuant, G. & N. Gilbert, *Viability and Resilience of Complex Systems*, 2011 (chapter 1)
- Holling, C.S., Resilience and stability of ecological systems, 1973

**OPTIONAL (BUT RECOMMENDED) READINGS**
- Mrotzek, M., Approaching the tipping point: Critical transitions in systems, 2011
- Scheffer, M., et al., Migraine strikes as neuronal excitability reaches a tipping point, 2013
- Stockholm Resilience Centre, Social-ecological systems contain various tipping points or thresholds that can trigger large-scale reorganization [http://www.stockholmresilience.org/download/18.3e9bddec1373daf16fa438/1381790210379/Insights_regimeshers_120111-2.pdf](http://www.stockholmresilience.org/download/18.3e9bddec1373daf16fa438/1381790210379/Insights_regimeshers_120111-2.pdf)
ACTIVITIES
- Assigning discussion leaders for 10/14 class

PART III: AN INTRODUCTION TO COMPLEX SYSTEMS METHODOLOGIES AND TECHNIQUES

Week 7  Modeling and Simulation
Oct 14 REQUIRED READINGS
- Van der Leeuw, S.E., Why model? 2004
- Page, S.E., Computational models from A to Z, 1999
- Page, S.E., The model thinker: Prologue, introduction, and chapter 1, 2015
  http://vserver1.csacs.lsa.umich.edu/~spage/ONLINECOURSE/R1Page.pdf
- Gilbert, N. & K.G. Troitzsch, Simulation for the Social Scientist (chapters 1-2), 2005
- Axelrod, R., Advancing the art of simulation in the social sciences, 2003
- Cioffi-Revilla, C., Computational social science, 2010
  http://www.academia.edu/4164897/Computational_social_science
- Lazer, D., et al., Computational social science, 2009
- Giles, J., Computational social science: Making the links, 2012
- Osgood, N., What tools does it take for understanding population health?
- Simon, C., Connecting population health researchers with complex systems models: Why? How
  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4452216/

OPTIONAL (BUT RECOMMENDED) READINGS
- Jones, S., An introduction to whole system modeling
- Madey, G. & S.H. Kaisler, Computational modeling of social and organizational systems, 2008
SUPPLEMENTAL READINGS

- Page, S.E., Model thinking. [https://www.coursera.org/course/modelthinking], 2015
- Wolkenhauer, O., Why model? 2014
- Johnson, P.E., Simulation modeling in political science, 1999

ACTIVITIES

- Model thinking, YouTube video, 2012 (S.E. Page)
  - https://www.youtube.com/watch?v=8lnQk0-PmPc (Why model)
  - https://www.youtube.com/watch?v=K-qphxGwJ38 (Intelligent citizens of the world)
  - https://www.youtube.com/watch?v=px2oW-S1Js (Thinking more clearly)
  - https://www.youtube.com/watch?v=APwJH2ziuYQ (Using and understanding data)
  - https://www.youtube.com/watch?v=NUkRsfdANY (Using models to decide, strategize, & design)
- Hammond, R., Challenge of obesity and a systems approach to solutions, 2014,
  [https://www.youtube.com/watch?v=XTJJ_6axsWuA], SFI
- Netlogo, [https://ccl.northwestern.edu/netlogo/](https://ccl.northwestern.edu/netlogo/), [http://ccl.northwestern.edu/netlogo/docs/](http://ccl.northwestern.edu/netlogo/docs/)
- Vensim, [http://www.public.asu.edu/~kirkwood/sysdyn/VenPLE.pdf](http://www.public.asu.edu/~kirkwood/sysdyn/VenPLE.pdf)
- Assigning discussion leaders for 10/21 class

Week 8: System Dynamics I: Systems Thinking, Complex Systems, and SD

Oct 21

REQUIRED READINGS

- Forrester, J.W., The beginning of system dynamics, 1989
- Sterman, J.D., Sustaining sustainability: Creating a systems science in a fragmented academy and polarized world, 2012
- Sterman, J.D., All models are wrong: Reflections on becoming a systems scientist, 2002
- Sterman, J.D., Business Dynamics (chapter 1), 2000
- Sterman, J.D., Learning from evidence in a complex world, 2006
- Braun, W., The system archetypes, 2002
- Richardson, G.P., Reflections on the foundations of system dynamics, 2011
- Forrester, J.W., System dynamics—A personal view of the first fifty years, 2007a
- Forrester, J.W., System dynamics—The next first fifty years, 2007b
- Meadows, D.H., Thinking in Systems (chapter 1), 2008
- Ford, A., Modeling the Environment (chapters 1, 3, & 9), 2010

OPTIONAL (BUT RECOMMENDED) READINGS

- Heffron P., Introduction to systems thinking, 2014
- Milstein, B. & J. Homer, SD simulation in support of obesity prevention decision making, 2009
  [http://www.iom.edu/~media/Files/Activity%20Files/PublicHealth/ObesFramework/OMIrvine16Mar09v52MilstainHomer.aspx](http://www.iom.edu/~media/Files/Activity%20Files/PublicHealth/ObesFramework/OMIrvine16Mar09v52MilstainHomer.aspx)

SUPPLEMENTAL READINGS

- System Dynamics Review, [http://www.systemdynamics.org/SDRlistOfAllTitles.htm](http://www.systemdynamics.org/SDRlistOfAllTitles.htm)
- Heffron, P., Operationalizing systems thinking and system dynamics principles, methods, and tools in government policy and management, 2014
• Pruyt, E. & T. Islam, The future of modeling and simulation: Beyond dynamic complexity and the current state of science, 2014
  http://www.systemdynamics.org/conferences/2014/proceed/papers/P1350.pdf
• Lane, D.C. & J.D. Sterman, Jay Wright Forrester, 2011
• Sterman, J.D., Stumbling towards sustainability, 2013
• Benjamin, C. & A. Jones, Systems Thinking: A Practical Application, 2006
• Carvalho, M.S., et al., The challenge of cardiovascular diseases and diabetes to public health: A study based on qualitative systems approach, 2015

ACTIVITIES
• In class examples and exercises on stocks, flows, feedbacks, and feedback loops
• Richardson, G., An Introduction to System Dynamics video, 2014
  https://www.youtube.com/watch?v=mSo8krblDlw&list=PLxRQR5u7n9ser93jufrsAUB6urYRBlWPM&index=4
• Richardson, G., Models that Matter video, 2014
  https://www.youtube.com/watch?v=y6okCwWiVG9&list=PLxRQR5u7n9ser93jufrsAUB6urYRBlWPM&index=10
• Assigning discussion leaders for 10/28 class

Week 9 Oct 28
System Dynamics II: SD Methodologies

REQUIRED READINGS
• Sterman, J.D., Business Dynamics (chapters 3, 4, 5, 6, & 7), 2000
• Lich Hassmiller, K., A Basic Primer on SDM, 2012,
• Lich Hassmiller, K., et al., System dynamics and community health, 2014
• Vennix, J., Group model-building: Tackling messy problems, 1999,
  https://obssr.od.nih.gov/issb/2012/files/Vennix%201999.pdf
• Hovmand, P.S., Community Based System Dynamics (chapters 1-7), 2014
• Hovmand, P.S., et al., Group model-building “scripts” as a collaborative planning tool, 2012
• Ford, A., Modeling the Environment (chapters 2 & 4), 2010
• Kirkwood, C.W., System Dynamics Methods (chapters 1, 2), 1998,
• Richardson, G.P., Concept models in group model building, 2013
• Stave, K., Participatory systems modeling for policy, 2012
• Coyle, G., Qualitative and quantitative modeling in SD: Some research questions, 2000
• Yearworth, M., Systems modeling and qualitative data, 2013,
• Richards, R., et al., Participatory systems thinking and modeling for climate change, 2013,

OPTIONAL (BUT RECOMMENDED) READINGS
• Yearworth, M., A brief introduction to system dynamics modeling, 2014

SUPPLEMENTAL READINGS

ACTIVITIES
• Exercises in class on group model building and causal loop diagrams
• Assigning discussion leaders for 11/4 class

Week 10 System Dynamics III: SD Modeling and Simulation-A

REQUIRED READINGS
Nov 4
- Jones, A.P., et al., Understanding diabetes population dynamics through simulation modeling and experimentation, 2006
- Homer, J.B. & G.B. Hirsch, SDM for public health: Background and opportunities, 2006
- Lich, K.H., et al., Strategic planning to reduce the burden of stroke among veterans: Using simulation modeling to inform decision making, 2014
- Tozan, Y. & D.C. Ompad, Complexity and dynamism from an urban health perspective: A rationale for a system dynamics approach, 2015
- Loyo, H.K., et al., From model to action: Using a system dynamics model of chronic disease risks to align community action, 2011

OPTIONAL (BUT RECOMMENDED) READINGS

ACTIVITIES
- Building and transforming causal loop diagrams into stock and flow diagrams
- Reviewing simple SD models and case studies
- Building and simulating simple models

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<td>• Building and simulating simple models in class</td>
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<td>Nov 18</td>
<td>REQUIRED READINGS</td>
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<td>• Wilensky, U. &amp; W. Rand, An Introduction to ABM (chapters 0, 1, 2, 4, 5, &amp; 6), 2015</td>
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<td>• Macal, C.M. &amp; M.J. North, Tutorial on ABM and simulation, 2010</td>
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• Miller, J.H. & S.E. Page, Complex Adaptive Systems (chapter 6), 2007
• Yang, Y., et al., Examining the impact of the walking school bus with an ABM, 2014
• Zhang, D., et al., Impact of different policies on unhealthy dietary behaviors in an urban adult population: An agent-based simulation model, 2014
• Maglio, P.P. & P.L. Mabry, ABM and systems science approaches in public health 2011
• Nianogo, R.A. & O.A. Arah, ABM of noncommunicable diseases: A systematic review, 2015
• Marshall, B.D. & S. Galea, Formalizing the role of ABM in causal inference and epidemiology, 2014
• Bruch, E. & J. Atwell, ABM in empirical social research, 2015

OPTIONAL (BUT RECOMMENDED) READINGS
• Borschev, A. & Filippov, A., From SD and discrete event to practical ABM: Reasons, techniques, and tools, 2004
• Epstein, J.M., Modeling civil violence: An agent-based computational approach, 2002
• Miller, J. & S.E. Page, The standing ovation problem, 2004
• Wallace, R., et al., Assessing the Use of ABM for Tobacco Regulation, 2015 (free online)

SUPPLEMENTAL READINGS
• Epstein, J.M., Generative Social Science: Studies in Agent-Based Computational Modeling, 2006
• Axelrod, R. & L. Tesfatsion, A guide for newcomers to ABM in the social sciences, 2005
http://www2.econ.iastate.edu/tesfatsi/abmread.htm
• De Marchi, S. & S.E. Page, Agent-based models, 2014

ACTIVITIES
• Epstein, J.M., Frontiers of computational social science: From neurons to nations, 2015
https://vimeo.com/124844985
• Agent-based and individual-based modeling: A practical introduction
• Short tutorial on NetLogo, http://ccl.northwestern.edu/netlogo/docs/
• How to build and simulate simple ABM using NetLogo (guest speaker)

Week 13 Nov 25-27 — THANKSGIVING BREAK – NO CLASS

Part IV: Putting It All Together

Week 14 Dec 2
Modeling Presentations
• Reviewing SD-based NIH proposal: Modeling tipping points in and resilience of commercial drivers’ chronic syndemics (Apostolopoulos, Y., et al., 10/2015)
• SD CLD presentations
• SD SFD presentations
• SD simulation modeling presentations
NOTES

Note 1:
The Americans with Disabilities Act is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services Main Office, in Cain Hall. The telephone number is 845-1637.

Note 2:
As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty."

Note 3:
"Aggies do not lie, cheat or steal, nor do they tolerate those who do. "The Aggie Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living under this code will be no problem, as it asks nothing of a person that is beyond reason. It only calls for honesty, integrity, characteristics that Aggies have always exemplified. The Aggie Code of Honor functions as a symbol to all Aggies, promoting the understanding and loyalty to truth and confidence in each other." All students are expected to abide by the Aggie Honor Code. Students should be aware of all Honor Council Rules and Procedures on the Honor Council website at www.tamu.edu/aggie/honor.
APPENDIX

Detailed Course Content

Systems thinking and complexity science represent a very broad and transdisciplinary field. As such, the course content below provides a very detailed overview of key topics that fall within the realm of systems, complexity, and population health sciences. Due to subject matter breadth and the introductory nature of this course, we will have time only to delve into select foundational concepts, themes, theories, methodologies, and techniques (with an emphasis on SDM).

PART I: SYMBIOSIS OF ORDER, CHAOS, AND COMPLEXITY IN POPULATION HEALTH

1. An Epistemological Shift in Population Health Sciences?
   - Philosophy and epistemology of science
   - Pillars of the scientific method
   - The (linear) paradigm of order
   - Simple systems; Cartesian (rationalist) and Newtonian (physical) laws of science
   - Reductionism, critical realism, and constructivism
   - Positivism and the dominance of linear models
   - The general linear model and regression-based approaches
   - Strengths and weaknesses of the traditional (linear) paradigm (in population health)
   - Challenges of linear approaches in population health research (fragmentation, disciplinary boundaries, rational choice theory, research designs, and plans of analysis); how to transcend these impasses
   - Rejecting linear, reductionist, mechanistic, and atomistic thinking
   - Order, disorder/randomness (chaos), and the space in-between (complexity)
   - Chaos theory, edge of chaos, chaotic phenomena, and examples
   - Physical, social, and biological reality composed by wide range of orderly, complex, and disorderly phenomena
   - The “s” curve of science: in search of unifying frameworks and theories?
   - Population health as a complex dynamical (adaptive) system?
   - Identification of linear, nonlinear, and chaotic patterns within markets, population health, and healthcare

PART II: SYSTEMS THINKING AND COMPLEXITY: THEORETICAL UNDERPINNINGS

2. Complex Systems: History, Themes, Theories
   - Complexity: What is it? Why does it matter? Examples
   - Tracing back the origins and etymology of complexity
   - Systems, complex systems, systems thinking, systems theory
   - Social complexity is the result of (is caused by) the behavior of simple actors as they adapt to their complex environments
   - Systems exist and operate in time and space
   - Wicked and messy problems
   - Complex systems thinking vs. conventional thinking
   - Systems, complexity, and/or nonlinearity science; nonlinear dynamics
   - Complexity theory and complexity science: order-creation science?
   - General systems theory: founders and history
   - Common themes: holism, integration, interconnectedness, organization, perspective taking, nonlinearity, and constructivism
• System behavior (emerges as result of nonlinear spatiotemporal interactions among many component systems at different levels of organization)
• Laws of thermodynamics and complexity
• Nature of systems (simple/ordered, disorganized complexity/chaotic, organized complexity/complex)
• Complicated vs. complex worlds; General vs. dynamic complexity
• Complexity in biological, physical, natural, technical, and social systems
• Complexity in social worlds: examples, applications, and case studies from marketplace, population health, and healthcare
• Complex systems and health policy
• Major complexity think-tanks: Santa Fe Institute, Los Alamos National Laboratory, Sandia National Laboratories, Brookings Institution, New England Complexity Science Institute

• Complexity: space within, interesting in-between, space between order and chaos
  o Complexity and CAS are not chaos theory
  o Key properties and concepts of complex systems
    • Attributes: interdependence, diversity, connection, and adaptation
    • Complex systems: unpredictable, produce large events, robust, bottom-up emergent phenomena (self-organization), novelty
    • Nonlinearity
    • Emergence and "second-order emergence"
    • Circular/nonlinear causality with positive and negative feedback loops
    • Butterfly effect (sensitive dependence on initial conditions) and chaotic behavior (extreme sensitivity to initial conditions, fractal geometry, and self-organized criticality)
    • Things change over time (dynamics) and time delays
    • History dependence
    • Policy resistance (many obvious solutions fail or worsen the situation)
    • Adaptation and adaptability
    • Multiple (meta) stable states (small change in conditions may precipitate major system change)
    • Non-Gaussian distribution of outputs, often where outcomes that are far away from the average are more likely than you might think (power laws)
    • Autopoiesis (self-production)
    • Six degrees
    • Scaling
• Applications and case studies from marketplace, population health, and healthcare

4. Complex Adaptive Systems
• What are complex adaptive systems (CAS), what do they mean, do they matter, and why do we study them?
• CAS thinking: examples of CAS
• History and origins: from cybernetics and systems to CAS
• CAS and the Santa Fe Institute
• Theoretical foundations of CAS
• Attributes and properties of CAS
  o CAS components: agents, regularities, feedbacks, patterns
  o Co-evolution, far-from-equilibrium, and self-organization
  o Cellular automata and their properties
  o Strange attractors
  o Distributed control
  o Self-similarity
- Connectivity
- Nested systems
- Simple rules
- Iteration
- Sub optimal
- Requisite variety
- Sensitive dependence on initial conditions
- Edge of chaos
- Emergent order
- Intractability
- CAS, modeling, and computer simulations
- CAS modeling by means of agent-based models and complex networks based models
- Modeling complex adaptive systems (John Holland)
- Why interventions fail in CAS?
- Managing CAS
- CAS in population health and healthcare: examples and case studies

5. Understanding/Managing Complex Systems: Emergence, Transitions and Resilience
- Critical phase transitions and transition theory
- Equilibrium state of a system
- Bifurcation (proceeded by increasing instability), catastrophic bifurcation, catastrophes, and catastrophe theory
- Alternative state states
- Regime shift
- Tipping elements and tipping points (first-order transitions)
- Critical thresholds
- Dynamical and structural stability of a complex system
- Resilience and resilience indicators
- Effects of diversity on resilience; enhancing resilience in vulnerable communities
- Basins of attraction, flickering, perturbations, hysteresis
- “Hot system:” system at risk of reaching a tipping point
- Tipping and game theory
- Precursors of transitions in complex systems
- Tipping point detection, early warning signals: slow recovery from perturbation (critical slowing down), increasing autocorrelation, increasing variance, increasing skewness, and flickering
- Transitions and tipping points in population health: Examples and case studies
- Anticipating critical transitions and managing tipping point dynamics in population health and healthcare
- Embedding the science of tipping points in health interventions, policy, and population health change

PART III: AN INTRODUCTION TO COMPLEX SYSTEMS METHODOLOGIES AND TECHNIQUES

6. Modeling and Simulation
- “All models are wrong, but some are useful” (G.E.P. Box)
- “Make your theory as simple as possible, but no simpler” (A. Einstein)
- Model as simplified representation of system at some point in time or space (intended to promote understanding of real system)
- Importance of model thinking: What is modeling? Benefits of modeling
- Mental vs. explicit models; deterministic vs. probabilistic models
- Linear vs. nonlinear models; static vs. dynamic models
• Mathematical, statistical, and computational models
• Why model? [To predict, explain, understand, guide data collection, suggest dynamical analogies, discover new questions, promote scientific habit of mind, bound outcomes to plausible ranges, illuminate core uncertainties, offer crisis options in near-real time, demonstrate tradeoffs and suggest efficiencies, challenge robustness of prevailing theory through perturbations, expose prevailing wisdom as incompatible with available data, train practitioners, discipline the policy dialogue, educate general public, reveal apparently simple (complex) to be complex (simple), decide, strategize, re/design]
• Modeling: only method that one can use to estimate future behavior of a system to past, present, and future processes that may influence a system
• Modeling and (population health) policy
• Computational models: theoretical foundations
• Designing, building/generating, programming, and evaluating (verifying and validating) computational models
• Simulation as method and tool; Simulation as method of theory development; Theoretical foundations of simulation; Uses/history of simulation; Stages of simulation-based research
• Modeling and simulation techniques based on nonlinear differential equations, networks, stochastic models, cellular automata, and swarm-like systems; Modeling exercises
• Classic models: Schelling’s segregation model, the Garbage Can model, the NK model, Watts-Strogatz model, Barabasi-Albert model, etc.
• Key computational modeling methodologies, tools, and techniques to study complex systems: system dynamics modeling, agent-based modeling, discrete event simulation, microsimulation, Markov modeling, network analysis
• Computational modeling programs: Python, StarLogo, NetLogo, Mathematica, Stella, Vensim, Swarm
• Toward a computational population health science?

7. System Dynamics I: Systems Thinking, Complex Systems, and SD
• History: cybernetics, industrial dynamics, system dynamics
• Founders: Forrester, Meadows, Senge, Sterman, Coyle, Richardson, Homer
• SD designed to address problems marked by dynamic complexity
• Background of SD: based on feedback as encountered in electrical and mechanical control systems
• SD provide tools to: map and model forces of change in dynamically complex systems, learn about why they behave the way they do and how to improve them
• Important questions to address via SD:
  o What aspects of system’s behavior are of concern?
  o Why are those features changing in those ways at those times?
  o Where is the system headed if no new action is taken?
  o How else can the system behave, if different decisions are made?
  o Who has the power to move the system in a more desirable direction?
• Concepts and themes in SD:
  o Mental models
  o Leverage points
  o Systems archetypes
  o Nonlinear causal relationships
  o Policy resistance
  o Unintended consequences
  o Emergent properties
  o Counterintuitive behavior of social systems
  o Dynamic behavior of the system
  o Understanding the causal structure of the system helps to understand the behavior of the system
8. System Dynamics II: SD Methodologies

- Properties of system dynamics
  - Stocks (levels, accumulations) and flows (rates, inflow or outflow for a stock)
  - Bidirectional (reinforcing/positive and balancing/goal-seeking/negative) feedback loops (circular causality)
  - Connectors and converters
  - Diagrams
  - Time delays and time-delayed effects
  - Time horizon

- Qualitative and qualitative system dynamics

- SD methodologies:
  - Help us develop a shared understanding of the system
  - Teach us to think differently about how systems behave (i.e., dynamics, circular causal feedbacks, accumulations, etc.)
  - Allow stakeholders to view the larger system they are embedded within
  - Provide framework for integrating what we know and determine importance of what we do not know
  - Support identification of high impact leverage points
  - Offer a virtual world in which to "test-drive" and compare policies

- Iterative steps in system dynamics:
  - Identify and define a persistent problem
  - List key factors (variables)
  - Define time horizon
  - Draw reference modes (historical behavior of key concepts and variables)
  - Formulate a dynamic hypothesis and a system map
  - Convert the map into a simulation model
  - Run simulation experiments
  - Evaluate models
  - Choose among plausible futures, identify leverage points and enact policies
  - Test and improve theory

- Behavior-over-time graphs (BOTGs) or reference mode
  - Exponential growth
  - Goal seeking
  - Exponential decay
  - Limits to growth
  - Oscillation
  - Success to the successful

- System boundaries
- Factors (variables), endogenous, exogenous and excluded variables
- Model boundary charts
- Feedbacks: arrows, signs, and loops (labeling link polarity, determining loop polarity)
- Participatory methods: group model building (GMB) methodologies

- Motivations for GMB methodologies:
  - Greatest insights come from modeling process
  - Participation increase likelihood of implementation
  - Participation is an intervention
  - “Dignity of risk”
  - Modeling is theory building
  - Information source

- The role of stakeholders
- Roles in group model building
  - Teamwork
- Participants
- Scripts
- Developing, posting and clustering BOTGs
- Mapping and modeling (causal maps, concept models)
- Core modeling team
  - Facilitator/substantive expert (1)
  - Modeler/facilitator (1)
  - Gatekeepers/leaders (1-4)
  - Recorders (2-4)
  - Process coach (1)
- Causal loop diagrams and dynamic hypotheses
- Examples of causal loops diagrams in population health
- Stock and flow diagrams
- Examples of stock and flow diagrams in population health
- Diagramming the flows
- Phases in the construction of a model

9/10. System Dynamics III, IV: SD Modeling and Simulation
- Introduction to SD modeling and simulation; use of Vensim
- Benefits of simulation and game-based learning
  - Formal means of evaluating options
  - Experimental control of conditions
  - Compressed time
  - Complete, undistorted results
  - Actions can be stopped or reversed
  - Visceral engagement and learning
  - Tests for extreme conditions
  - Early warning of unintended effects
  - Opportunity to assemble stronger support
- Diagrams and equations (mathematical representation of models)
  - Flow graphs
  - Algebraic equations
  - Differential equations
    - Equations using the population and birth model
    - System dynamics algorithm
- Model calibration
  - Estimation of parameters
  - Quantification challenges
  - Types and sources of data: various quantitative and qualitative data from US Census, vital stats, national surveys, research literature, major studies, etc.
  - Concepts, proxy variables, and initial values
  - Key constants
  - Scenario variables
  - Calibration of qualitative parts
- Model simulation
  - Model testing
    - Different scenarios (base, optimistic, and pessimistic scenarios; history based; future plausible assumptions; etc.)
    - Role of time horizon
- Model validation and sensitivity analysis
- National population health studies using SDM: ReThink Health, Archimedes, HealthBound

11. Agent-Based Modeling
- Complexity and agent-based models; what is agent-based modeling?
• ABM (or individual based modeling) looks at global consequences of individual or local interactions among agents in a given space
• When and why agent-based models are used?
• Why agent-based objects? (flexibility vs. precision, process oriented, adaptive agents, inherently dynamic, heterogeneous agents and asymmetry, scalability, repeatable and recoverable, constructive)
• Theoretical foundations
• Basic concepts and properties of agent-based modeling
• When ABM is most beneficial?
• Agent attributes and behaviors
• Capabilities of agent-based models
• Agent-based model design process
• Agent interactions with other agents and the environment
• Capturing population health complexity with agent-based modeling and simulation
• Population health studies using agent based modeling
• Differences between ABM and other forms of modeling such as SDM
• Leaders in ABM and the social sciences: Axelrod, Epstein, Hammond, etc.
• Comparative survey of modeling methodologies
• Structure of an agent-based model: Agents, their relationships and methods of interactions, agents’ environment
• How to think about agent based modeling and simulation
• Agent-based and mathematical modeling: comparisons
• Range of tools for agent-based modeling
• Specific selected agent-based model development tools
• Basic agent-based model architectures
• Model verification and validation techniques
• Data collection and cleaning for modeling; Model output analysis
• Approaches to presenting results to decision makers
• Agent-based model project management
• Building/creating agent based models
  o Designing your model (choosing research questions, examples)
  o Choosing your agents (choosing agent properties, choosing agent behavior, choosing parameters of the model)
• Components of ABM
  o Agents (properties, behaviors/actions, collections of agents, granularity of an agent, agent cognition, other kinds of agents)
  o Environments (spatial environments, network-based environments, special environments)
  o Interactions
• Analyzing ABM
  o Types of measurement
  o Modeling the spread
  o Verification, validation, and replication
    • Correctness of the model
    • Verification (communication, describing conceptual models, verification testing, beyond verification, sensitivity analysis and robustness, verification benefits and issues)
    • Validation (macrovalidation vs. microvalidation, false validation vs. empirical validation, validation benefits)
    • Replication
• Computational roots of ABM
• Genetic algorithms, John Holland, and CAS
- NetLogo: introduction, commands, procedures
- Simulation skills, agent-based modeling language, software skills (NetLogo), as well as strategies for designing agent-based models and implementing simulation experiments
Texas A&M University
Departmental Request for a New Course
Undergraduate + Graduate + Professional
* Submit original form and attach a course syllabus.*

Form Instructions
1. Course request type:  
   - Undergraduate  
   - Graduate  
   - First Professional (MHS, MD, Pharmacy, DVM)
2. Request submitted by (Department or Program Name):  
   - Department of Health Promotion and Community Health Sciences, SPH
3. Course prefix, number and complete title of course:  
   - HPCH 641 Coaching Health Behavior Change
4. Catalog course description (not to exceed 50 words):  
   - Training in coaching lifestyle behavior change to prevent or manage common chronic diseases; effectiveness of lifestyle coaching; theories and practices in coaching for disease prevention; motivational and other interviewing techniques; goal setting and legal concerns.

5. Prerequisite(s):  
   - None
   - Cross-listed with:  
   - Stacked with:

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

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

8. Will this course be repeated within the same semester?  
   - Yes  
   - No

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

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

   Any master's or doctoral program

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

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

13. [Table: Approval recommended by:
   - Department Head or Program Chair (Type Name & Sign)  
   - Date
   - Chair, College/Div/Committee  
   - Date
   - Dean of College  
   - Date
   - Chair, GC or UCC  
   - Date
   - Effective Date

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

Course title and number
HPCH 641 Coaching Health Behavior Change

Term
Fall 2016

Meeting times and location
Course is on-line. Live sessions TBD.

Instructor Name(s)
Thomas Tai-Seale Dr.P.H., M.M.S., M.P.H., M.A.

Teaching Assistant(s)
NA

Telephone number
650-815-5512

Email address
ttaiseale@sph.tamhsc.edu

Office hours
Wednesdays at 12:00PM and 8:00PM. Go to:
http://sph.adobeconnect.com/ttaiseale/

Office location
NA

Course Description

Coaching Health Behavior Change provides the process skill training necessary to assist those who want assistance in making lifestyle behavior changes to prevent or manage common chronic diseases. The course is focused on how to coach individuals or small groups to make these changes. The course is heavily process oriented, delivering theories, concepts and practice in individual health behavior change, client assessment, motivational strategies, motivational interviewing, cognitive restructuring, problem posing, problem solving and the ethics of professional practice. This process level course is often taken in conjunction with courses that present the content evidence for best behavioral lifestyle practices, especially HPCH 640 Diet and Lifestyle Interventions.

COURSE REQUIREMENTS

1. A reliable computer, laptop, or tablet with high-speed Internet connectivity.
2. Reliable access to high-speed Internet and access to a competent browser (Firefox is greatly preferred).
3. Ability to access and successfully use eCampus and Adobe Connect.
4. Use of university assigned eCampus email for all class correspondence.
5. Full and timely participation in all class assignments and completion of all tests, graded assignments and the final exam.
6. Professional behavior in all interactions with students and the instructor—as further described below.
7. Not copying any course materials—save for personal use. Do not distribute any copy of the course materials in any form.
8. Not copying any item on a test for any reason.

Prerequisites

None
Course Competencies and Objectives

Upon completion of this course, students will be able to:

1. Explain the need for health coaching to prevent and/or manage chronic disease.
2. Distinguish between the roles of a health coach, a personal trainer, and a counselor of therapist.
3. Cite evidence for the effectiveness of health coaching.
4. Explain how key behavioral theories are related to and can be employed in coaching individuals or small groups on behavior change.
5. Describe the skills necessary to be a successful health coach.
6. Describe the process of appreciative inquiry and motivational interviewing.
8. Explain ethical and legal constraints associated with health coaching.

Textbook and/or Resource Material

1. How To Be A Health Coach: An Integrative Wellness Approach Paperback use pre formatted date that complies with legal requirement from media matrix – August 29, 2013 by Meg A Jordan PhD, RN, CWP.
3. Additional readings as assigned by professor.

Course Topics, Calendar of Activities, Major Assignment Dates

Topics, readings, tests and paper assignment dates are given below.

<table>
<thead>
<tr>
<th>Week starting</th>
<th>Topic</th>
<th>Required Reading/Practice</th>
</tr>
</thead>
</table>
| 1.           | • Video Introduction: The Case for Coaching: Coaching defined, scope, need, evidence and ethics.  
• Introduce class assignment book  
• Assign reading and practice: Using theories | Awaiting new text |
| 2.           | • Discuss reading and practice assignment: Using theories of individual health behavior change in clinical settings: Adult learning theory, Maslow’s hierarchy, positive psychology, applied learning theory, cognitive behavioral process.  
• Assign reading and practice: Using theories (2) | Awaiting new text |
| 3.           | • Discuss reading and practice assignment: Using theories of individual health behavior change in clinical settings: transtheoretical framework, social cognitive theory, emotion and behavior, neuroscience of learning.  
• Test 1 posted  
• Assign reading and practice: Using theories motivation and habit change | Awaiting new text |
<p>| 4.           | • Discuss reading and practice assignment: Using theories of | Awaiting new text |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>5.</strong></td>
<td>Discuss reading and practice assignment: Using appreciative inquiry&lt;br&gt;Assign reading and practice: Using motivational interviewing&lt;br&gt;Test 2 Posted</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>6.</strong></td>
<td>Discuss reading and practice assignment: Using motivational interviewing&lt;br&gt;Assign reading and practice: More using motivational interviewing</td>
<td>Miller and Rollnick</td>
</tr>
<tr>
<td><strong>7.</strong></td>
<td>Discuss reading and practice assignment: Using motivational interviewing&lt;br&gt;Assign reading and practice: More motivational interviewing</td>
<td>Miller and Rollnick</td>
</tr>
<tr>
<td><strong>8.</strong></td>
<td>Discuss reading and practice assignment: Using motivational interviewing&lt;br&gt;Post Test 3&lt;br&gt;Assign reading and practice: Using alternative approaches</td>
<td>Miller and Rollnick</td>
</tr>
<tr>
<td><strong>9.</strong></td>
<td>Discuss reading and practice assignment: Alternative approaches to health coaching.&lt;br&gt;Assign reading and practice: Increasing self-efficacy</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>10.</strong></td>
<td>Discuss reading and practice assignment: Increasing self-efficacy.&lt;br&gt;Post Test 4&lt;br&gt;Assign reading and practice: Risks, standards and boundaries</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>11.</strong></td>
<td>Discuss reading and practice assignment: Risks, standards and boundaries&lt;br&gt;Assign reading and practice: Client assessment...</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>12.</strong></td>
<td>Discuss reading and practice assignment: Client assessment, wheel of health, agreement, rapport and visioning&lt;br&gt;Assign reading and practice: Goal-setting</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>13.</strong></td>
<td>Discuss reading and practice assignment: The magic of goals, goal-setting and clinical guidelines.&lt;br&gt;Assign reading and practice: Using stress reduction techniques and the challenges of coaching</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>14.</strong></td>
<td>Discuss reading and practice assignment Using stress reduction techniques and the challenges of coaching</td>
<td>Awaiting new text</td>
</tr>
<tr>
<td><strong>16.</strong></td>
<td>Exam</td>
<td>Awaiting new text</td>
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</table>
Grading Policies

The course grade is determined by scores on tests, participation in class discussions and practice assignments and a final exam as follows:

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>Avg of 4 tests</td>
<td>40%</td>
</tr>
<tr>
<td>Participation weekly reading and practice assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Final exam</td>
<td>20%</td>
</tr>
</tbody>
</table>

Students are expected to come to weekly discussions having read the assigned readings and completed the practice assignments. Participation in weekly readings and practice assignments is graded based on the quality of interaction with the professor reflecting familiarity with the text assignments and thoughtful completion of assigned practice exercises. Students receive one grade ...An A-level score (90-100) is earned when students demonstrate mastery of assigned reading and correct application of skills. A B-level score (80-89) is earned when familiarity with assigned readings is demonstrated and reasonably correct applications are shown in the practice exercises. A C-level score (70-79) represents a marked deficiency of understanding or application. Scores below 70 reflect poor or very poor demonstration of skills and concepts. Unexcused absences from weekly discussions results in a “0” for that session.

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

Attendance and Make-up Policies

As this is an on-line course, classroom attendance is not applicable. Attendance on-line (through Adobe Connect) for weekly discussion of readings and assignments is, however, required. Every effort will be made to accommodate student’s schedules for these discussions. Once set, however, attendance at discussion sessions is mandatory. Discussions and practice sessions rarely last more than an hour for any group of students. Tests, reading assignments and practice assignments are completed asynchronously. Make-up tests and discussion sessions are generally not allowed—save under exceptional circumstances as determined by the instructor often in consultation with the Department Head.

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

It is the student’s responsibility to provide satisfactory evidence to the instructor to substantiate the reason for absence. Only the reasons specified by the University for being absent will be accepted. They include:

- Participation in an activity appearing on the University Authorized Activity List;
- Confinement because of injury or illness that is too severe or contagious for the student to attend class;
- Death or major illness in a student’s immediate family;
- Illness of a dependent family member;
- Participation in legal proceedings or administrative procedures that require the student to be present;
- Religious holy day;
- Required participation in military duties;
Mandatory admission interviews for professional or graduate school that cannot be rescheduled.

To be excused from class for one of these reasons, the student must make arrangements with the instructor before the class session that will be missed. For authorized absences, depending on what is missed, the instructor will choose an alternative activity for the student to complete. For unauthorized absences, the instructor will decide on a course of action depending on the circumstances.

Students are expected to use eCampus e-mail address for all official correspondence. Students will receive an email to their university assigned eCampus email at the first of every week. This email includes any announcement that needs to be made and usually reminds students of tasks assigned for the week in the class calendar.

Communicating with the Professor and vice versa
Three mechanisms exist to communicate with the professor.

1. Talk with me during weekly discussions—usually on Adobe Connect.
2. Visit my live on-line office hour. Twice a week on Wednesdays I sit in front of a computer and wait for you to contact me through http://spH.adobecOnnect.com/ttaiseale/ I’ve tried many different times over the years, but for on-line classes, Wednesdays at noon and Wednesday night after dinner (9:00 PM) seems to work best.
3. Send me an email. Note, however, that I get many dozens of emails every day and sometimes an email may pass by unnoticed or accidentally deleted. (I assume this also happens to you.) Please understand that just like “live” professors, on-line professors are not always on-line, not always on-call, and do not respond instantly to emailed questions. It may take several days to get a response—as it may take several days to get an appointment with a professor. If you don’t hear back from me in a few days, email again.

If I need to send a message to the whole class, I use email. Content related questions can be asked during weekly discussions or during Office Hours—see above. If you want to ask more private or sensitive questions, use my personal email: ttaiseale@spH.tamhsc.edu. Questions about process: access, testing, grading, personal difficulties, or concerns about classmates should be sent to my email account. If, after several days, you have not heard back from me, try again.

cCampus (Blackboard)
The syllabus, tests, and grades are accessed through eCampus. In addition, some assigned readings may also be posted in eCampus.

In order to access the course material you will need to go to login into Howdy and then click the eCampus button on the top right or look for Quick Links on the bottom of the School’s homepage or go to http://ecampus.tamu.edu Please do not contact your instructor with technical problems. If you are having a technical problem with the course, review the Blackboard Learn Tutorials (at the top-right of School’s Office of Academic Assessment and Instructional Technology website), or contact John C. Lingsweiler in the School’s Office of Academic Assessment and Instructional Technology. John may be reached at (979) 436-9409 or at lingsweiler@spH.tamhsc.edu. For login issues (password not working), please contact TAMU Help Desk at helpdesk@tamu.edu via E-mail, or phone to (979) 845-8300. Your eCampus login is the same as your Howdy login (NetID).

Computer Requirements for Online Courses
For this and all online courses we recommend the minimum technical requirements outlined on our “SPH Computer Requirements for Online Courses” web page, located at

All computing problems or other technical issues not related to eCampus, please contact:

- TAMHSC related account: helpdesk@tamhsc.edu via E-mail, or phone to (979) 862-8029
- TAMU related account: helpdesk@tamu.edu via E-mail, or phone to (979) 845-8300

Important!!! Save your work as you go along. Nothing is more discouraging than to lose an assignment due to a computer hang up! You may want to also make hard copies of your work to have "proof" and save yourself time and trouble!

Plagiarism Virtual Course

Plagiarism is the leading form of academic dishonesty that the School of Public Health has to address. As a SPH student, you are responsible for knowing what plagiarism is and how to avoid it. All SPH students are automatically enrolled in Plagiarism Virtual Course on eCampus. This virtual course provides you with information and examples related to plagiarism in an effort to reduce the number of reported incidents. Please find a tutorial and resources under "Content." In addition, please see Turnitin, a software package that allows you to check whether you may have plagiarized your document. Please see Phuong Huynh: phuong@sphtamhsc.edu for additional information.

Course Evaluation

Constructive feedback from students on course evaluations is taken very seriously at the School of Public Health. I am asking for your assistance in helping the School in its assessment of courses and faculty through your participation in the evaluation of your courses. As public health professionals you will one day have the responsibility to evaluate colleagues and health initiatives. The School views providing feedback on the School's courses as part of your professional responsibility.

SPH Mission

Our mission is to create and apply knowledge acquired from the disciplines of public health to the education of public health leaders and practitioners through our research, practice, and service in the state of Texas, nationally, and globally.

Americans with Disabilities Act (ADA)

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

Academic Integrity

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Students are expected to adhere to all TAMUS, TAMU, HSC, and School policies regarding academic integrity and classroom conduct. Academic dishonesty includes, but is not
limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used, or tampering with the academic work of another student. Individuals found guilty of academic dishonesty may be dismissed from the degree program, and at a minimum will receive an F for the course. It is the student's responsibility to have a clear understanding of how to reference other individuals' work, as well as having a clear understanding in general as to the various aspects of academic dishonesty. A tutorial on this issue is available at: http://SPH.tamhsc.edu/academic-affairs/academic-integrity.html. A plagiarism tutorial can be found in Blackboard. Information on the Aggie Honor Code can be found at http://aggiehonor.tamu.edu.

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

Copyright Statement

The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted by the instructor.

FERPA

The Federal Education Rights & Privacy Act requires that we advise students that by registering for this course, their HSC assigned e-mail address will be revealed to classmates and the instructor. By continuing your enrollment in the course you acknowledge your understanding of this policy. By enrolling in this course you agree to the following statement: "I understand that as a result of registering for this course, my HSC/Blackboard assigned e-mail address will be revealed to classmates and the instructor."

Equal Opportunity Statement

The Texas A&M Health Science Center is an Equal Opportunity/Affirmative Action employer. Inquiries regarding nondiscrimination policies may be directed to the Human Resources Officer by phone at (979) 438-9208, email hr@tamhsc.edu, or by mail at 200 Technology Way, College Station, TX 77845.

DISCLAIMER

This syllabus is representative of materials that will be covered in this class; it is not a contract between the student and the institution. It is subject to change. These changes will be communicated via email or posted as announcements. If you have any problems related to this course, please feel free to discuss reading and practice assignment with the instructor.

Title IX

Title IX of the Education Amendments of 1972 protects people from sex discrimination in educational programs and activities at institutions that receive federal financial assistance. Texas A&M University and the Texas A&M Health Science Center are committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, the University does not discriminate on the basis of sex in its education programs and activities, and it encourages any student or non-student who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct by another student, member of the faculty or staff, or campus visitor or contractor, to immediately report the incident to any of the individuals persons or offices listed below.

WHERE TO REPORT:
James Nachlinger,
Executive Director, Payroll and HR Services
Title IX Coordinator
979-436-9207
nachlinger@tamhsc.edu

The University encourages students to immediately consult with or report incidents of sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to the TAMHSC Title IX Coordinator. Students may also report incidents of sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to any School of Public Health administrator, university administrator, official or unit supervisor, who is then responsible for promptly notifying any of the above Title IX coordinators of the reported incident.
Focus on theory and real world practice of leadership; recognize components of leadership, management and labor; the basis of leadership authority, values and styles as applied to organizational vision, mission and life cycle; assess own leadership traits in preparation of entering work force.

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

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services  07/14
TEXAS A&M UNIVERSITY AT GALVESTON
Department of Maritime Administration

Maritime Administration MARA 675 Leadership in the Maritime Industry
Spring 2016

NOTE: Leadership has a “Ship” in it.

Instructor – Len Waterworth – waterwol@tamug.edu  cell 713.899.7917
Meeting Times: 1800 – 2030 hours
       Peter G. Northouse, Leadership and Practice *Sixth edition or better

Course Prerequisite: Graduate Student, Permission of the instructor

COURSE DESCRIPTION:

This course will focus on theory and the real world practice of leadership. Students will become familiar
with components of leadership, management and labor, the basis of leadership authority, leadership
values and styles as they apply to organizational vision, mission and organizational life cycle. The Student
will participate in individual assessment of their leadership traits in preparation of entering the work
force.

PARTICIPATIVE LEARNING

The class will meet once weekly throughout the semester. The class will require active participative
learning but at this point in your development as a graduate student, much of your learning should be
driven by your own intellectual curiosity away from class. However, we still come together collectively to
meet as a class because we will learn from each other and gain different perspectives, and reinforce our
understanding on the subjects of leadership. We can only do this if everyone is prepared and participates.
Our class will become a place where discussion and case studies build a larger common understanding of
the topics.

THE PURPOSE OF THIS CLASS

To assist you to be a leader in your: professional, community and personal life, if you choose. In this class
you will learn more about leadership, follower-ship and, hopefully, start a lifetime journey of improving
leadership skills.

When you graduate I want you to be able to offer not only maritime analysis and advice, but also
informed ethical leadership.

LEARNING OBJECTIVES

- Define Leadership and leadership authority
- Examine the roles and responsibilities of leaders, managers and labor and the interactions
  between each
- Identify and describe major leadership attributes and theories
- Describe the behaviors of effective leaders in a variety of situations
- Use self-assessment tools to evaluate your own level of leadership development and individual skills, personality dimensions and management competencies
- Describe practical skill needed to be an effective leader in different environments
- Describe a leader's ethical options in crisis

TEXTBOOK/READINGS

Required


Textbooks (recommended)


Kellerman, Barbara, The End of Leadership, Boston: Harvard Business School Press,


Headquarter, Department of the Army, FM 6-22, Army Leadership, October 2006

Adizes, Ichak, Adizes Institute Publication, 2004, Managing Corporate Lifecycles:


PRESENTATIONS. LEADERSHIP FRAME WORK

LEADERSHIP FRAMEWORK

Submit a paper of no more than 10 pages in which you present your current personal leadership framework. (Why would anyone follow me?) A leadership framework is an organized set of your ideas on how you will lead. Explain how you could establish your authority to lead, how you could establish the leadership climate and standards that will accomplish organizational objectives. Explain how you build relationships with your leadership and subordinates. Your work should reflect sensitivity to the ethical dimension of leadership.

The paper is not a research paper. Instead of that it should be a statement of how you think about leadership now. It should reflect your ideas, a statement of what you think about leadership that you can actually live by for the near term as you gain more experience and knowledge. It should be a useful guide to you in future leadership situations, and it should be something you would be proud to give to someone who knows nothing about leadership. It should have the potential to help you benchmark your leadership development over your working career.

The basic framework should include, as a minimum, your answers to the following:

1. Your definitions of leadership and followership, Definitions of values and character.
2. Briefly, in three scenarios, describe your thought process if:

- You determine your immediate supervisor has conducted himself or herself in an unethical manor.
- You determined your immediate subordinate, has conducted himself or herself in an unethical manor.
- And that the action you take has the potential of hurting or terminating your employment.

You may cite the work of others, and you may also adopt or reject the ideas of others as long as you are able to explain why you choose to do so. Useful criteria for accepting for or rejecting the work of others include research, experience and practicality.

I will grade your paper on content, logic and internal consistency. References are required.

GRADING SCHEME:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>25%</td>
</tr>
<tr>
<td>Presentation</td>
<td>25%</td>
</tr>
<tr>
<td>Class attendance</td>
<td>25%</td>
</tr>
<tr>
<td>Leadership Frame Work</td>
<td>25%</td>
</tr>
</tbody>
</table>

Letter grade A: 91-100 B: 81-90 C: 71-80 D: 61-70

Office Hours: In the office most of the time or Contact via email or phone
Phone: 713.899.7917
E-mail: waterwol@tamug.edu

COURSE SCHEDULE

Lesson 1 - Why Study Leadership?
Introduction, POP Quiz-Student Presentations 2 minute each “self introductions to include leadership positions I have held”, Syllabus Negotiations, Assign HOMEWORK#1 before any reading assignment, write your current definition of Leadership, Management and Labor. (1 page max). Assign presentations from Northouse.

Lesson 2 – What is Leadership?
TURN-IN HOMEWORK#1,
READ: Syllabus, Gardner: Preface, Introduction
Presentation: Trait Approach (N)

Lesson 3 – Laborer/Followers
Leadership Tasks/Leadership Constituents Chapter 2/3 (G)
Leadership Trait Questionnaire Review (LTQ) pg. 38 (G)
Presentation Skills Approach (N)

Lesson 4 – Context and Attributes Chapter 4/5 (G)
Skills Inventory review pg. 69
Presentation Style Approach (N)
Lesson 5 - Power and Moral Dimension (Ethics) Chapter 6/7 (G)
   Style Questionnaire Review pg. 93
   Presentation Situational Approach (N)

Lesson 6 - Culture and Ethics Chapter 15/16 (N)
   Situational Leadership Review pg. 116 (N)
   Presentation Contingency Theory (N)

Lesson 7 - Large Scale Organized Systems Chapter 8 (G)
   Contingency Theory Review pg. 134 (N)
   Presentation Path-Goal Theory (N)

Lesson 8 - Fragmentation and the Common Good/The Knitting Together Chapter 9/10 (G)
   Path-Goal Leadership Questionnaire pg. 155 (N)
   Presentation Leader-Member Exchange Theory (N)

Lesson 9 - Community/Renewing Chapter 11/12 (G)
   LMX7 Questionnaire Review pg. 180 (N)
   Presentation Transformational Leadership (N)

Lesson 10 - Sharing Leadership Tasks Chapter 13 (G)
   Multifactor Leadership Questionnaire (MLQ) Review pg. 213 (N)
   Presentation Authentic Leadership chapter 11 (N)

Lesson 11 - Motivating/Release of Human Possibilities Chapter 16/17 (G)
   Authentic Leadership Self-Assessment Questionnaire review pg. 280 (N)
   Presentation Psychodynamic Approach (N)

Lesson 12 - Motivating/Release of Human Possibilities Chapter 16/17
   Psychodynamic Approach Survey Review
   Class Summary/ Wrap up leadership framework presentations

Please note the following important statements relating to University and Department policies

**AMERICANS WITH DISABILITIES ACT (ADA) POLICY STATEMENT**

The Americans with Disabilities Act, (ADA), is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, the legislation requires that all students 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 Counseling Office, Seibol Student Center, or call 409.740.4587. For additional information visit [http://www.tamug.edu/counsel/disabilities.html](http://www.tamug.edu/counsel/disabilities.html)

**TAUMG Academic Dishonesty Statement**

For many years, Aggies have followed a Code of Honor, which is stated in this very simple verse: “Aggies do not lie, cheat or steal, nor do they tolerate others who do.” As such, it is the responsibility of students and faculty members to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty. The Aggie Code of Honor and the Scholastic Dishonesty sections in the
BACKGROUND MATERIAL

LEADERSHIP PART I
What it Takes to be a Great Leader (9:19)
https://www.ted.com/talks/roselinde_torres_what_it_takes_to_be_a_great_leader
The Power of Vulnerability (20:19)
https://www.ted.com/talks/brene_brown_on_vulnerability
Tribal Leadership (16:39)
https://www.ted.com/talks/david_logan_on_tribal_leadership

Trial, Error, and the God Complex (18:07)
https://www.ted.com/talks/tim_harford

WORK HAPPINESS PART I
How to Save the World from Bad Meetings (6:34)
https://www.ted.com/talks/david_ghady_how_to_save_the_world_or_at_least_yours_elf_from_bad_meetings
Why It's Time to Forget the Pecking Order at Work (15:47)
https://www.ted.com/talks/margaret_heffernan_why_it_s_time_to_forget_the_pecking_order_at_work
Six Rules to Simplify (12:01)
https://www.ted.com/talks/yves_morieux_as_work_gets_more_complex_6_rules_to_simplify
Why Work Doesn't Happen at Work (15:21)
https://www.ted.com/talks/jason_fried_why_work_doesn_t_happen_at_work
Got a Meeting? Take a Walk (3:28)
https://www.ted.com/talks/nikofer_merchant_got_a_meeting_take_a_walk

LEARNING
Three Rules to Spark Learning
https://www.ted.com/talks/rainey_musallam_3_rules_to_spark_learning
How to Learn From Mistakes
https://www.ted.com/talks/diana_laufenberg_3_ways_to Teach
Why We Do What We Do (21:45)
https://www.ted.com/talks/tony_robbins_asks_why_we_do_what_we_do
How Reliable is Your Memory? (17:36)
https://www.ted.com/talks/elizabeth_loftus_the_fiction_of_memory

BRAINS
Brain Magic (19:49)
https://www.ted.com/talks/keith_barry_does_brain_magic
A Neural Portrait of the Human Mind (17:40)
https://www.ted.com/talks/nancy_kanwisher_the_brain_is_a_swiss_army_knife
Got a Wicked Problem? (9:01)
https://www.ted.com/talks/tom_wujec_got_a_wicked_problem_first_tell_me_how_you_make_toast
Optical Illusions Show How We See (16:30)
https://www.ted.com/talks/beau_lotto_optical_illusions_show_how_we_see

LISTENING
Five Ways to Listen Better (7:50)
https://www.ted.com/talks/jullan_treasure_5_ways_to_listen_better
Everyone Around You Has a Story the World Needs to Hear (21:38)
https://www.ted.com/talks/dave_isay_everyone_around_you_has_a_story_the_world_needs_to_hear
Want to Help Someone? Shut Up and Listen! (17:09)
https://www.ted.com/talks/ernesto_siorilli_want_to_help_someone_shut_up_and_is
How to Speak So That People Want to Listen (9:58)
https://www.ted.com/talks/julian_treasure_how_to_speak_so_that_people_want_to_listen

All Kinds of People
The World Needs All Kinds of Minds (19:43)
https://www.ted.com/talks/temple_grandin_the_world_needs_all_kinds_of_minds
The Power of Introverts (19:04)
https://www.ted.com/talks/susan_cain_the_power_of_introverts
Your Elusive Creative Genius (19:09)
https://www.ted.com/talks/elizabeth_gilbert_on_genius

Leadership Part II
How Great Leaders Inspire Action (18:04)
https://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action
Lead Like Great Conductors (20:51)
https://www.ted.com/talks/itay_talgan_lead_like_the_great_conductors
Listen, Learn...Then Lead (15:38)
https://www.ted.com/talks/stanley_mccrystal
Why Good Leaders Make you Feel Safe (11:59)
https://www.ted.com/talks/simon_sinek_why_good_leaders_make_you_feel_safe

Work Happiness Part II
The New Era of Positive Psychology (23:43)
https://www.ted.com/talks/martin_seligman_on_the_state_of_psychology
The Puzzle of Motivation (18:36)
https://www.ted.com/talks/dan_pink_on_motivation
The Power of Time Off (17:40)
https://www.ted.com/talks/stefan_sagmeister_the_power_of_time_off
How to Make Work-Life Balance Work (10:05)
https://www.ted.com/talks/nigel_marshall_how_to_make_work_life_balance_work

Honorable Mentions
What Makes Us Feel Good About Work? (20:26)
https://www.ted.com/talks/dan_ariely_what_makes_us_feel_good_about_our_work
The Origins of Pleasure (16:17)
https://www.ted.com/talks/paul_bloom_the_origins_of_pleasure
How to Truly Listen (32:09)
https://www.ted.com/talks/evelyn_glennie_shows_how_to_listen
Strange Answers to the Psychopath Test (18:01)
https://www.ted.com/talks/jon_ronson_strange_answers_to_the_psychopath_test
Can We Eat to Starve Cancer? (20:02)
https://www.ted.com/talks/william_li
The Surprising Science of Happiness (21:16)
https://www.ted.com/talks/dan_gilbert_asks_why_are_we_happy
Happiness and Its Surprises (19:45)
https://www.ted.com/talks/nancy_etcoff_on_happiness_and_why_we_want_it
The Happy Secret to Better Work (12:20)
https://www.ted.com/talks/shawn_achor_the_happy_secret_to_better_work
Why Do We Sleep (21:46)
https://www.ted.com/talks/russell_foster_why_do_we_sleep
How to Make Hard Choices (14:41)
https://www.ted.com/talks/ruth_chang_how_to_make_hard_choices
How to Make Stress Your Friend (14:28)
https://www.ted.com/talks/kelly_mcgonigal_how_to_make_stress_your_friend
Your Genes are Not Your Fate (3:12)
https://www.ted.com/talks/dean_ornish_says_your_genes_are_not_your_fate
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus.

Form Instructions:
1. Course request type: □ Undergraduate ☑ Graduate □ First Professional (DMD, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Marine Sciences
3. Course prefix, number and complete title of course: MARS 603 Quantitative Methods for Resource Management
4. Catalog course description (not to exceed 50 words):
Comprehensive introduction to descriptive and inferential statistical techniques, regression models, quantitative data analysis and research designs essential for understanding resource management and policy related issues.

5. Prerequisite(s):
STAT 303 or equivalent introductory undergraduate quantitative methods course
Cross-listed with: Stacked with:

Cross-listed courses require the signatures of both department heads:

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

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

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

13. Prefix Course # Title (excluding punctuation)
<table>
<thead>
<tr>
<th>MARS 603</th>
<th>Quantitative Methods for MARM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lect.</td>
<td>Lab</td>
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<td>3.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Approval recommended by:

Date

Date

Date

Date

Date

Date

Date

Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Course title and number: Quantitative Methods for Resource Management, MARS 603
Meeting term and time: Fall/Spring/Summer 201x, time TBA
Location: TBD

Catalog Description

Comprehensive introduction to descriptive and inferential statistical techniques, regression models, quantitative data analysis and research designs essential for understanding resource management and policy related issues.

Course Description

This course provides an introduction to quantitative methods and reasoning in empirical research. The goal is to understand and confidently apply a variety of statistical methods and research designs that are essential for resource management and policy related questions. There will be an introduction to commonly used descriptive and inferential statistical techniques, regression models (both linear and non-linear) which are routinely used in policy research, and all other social science disciplines. Students will learn how to use statistical software to manage data, conduct statistical analysis, interpret empirical findings and write about the results in a way to communicate them clearly and effectively to general audience.

Prerequisites

Students in this course should have knowledge of the basics in statistics (e.g. STAT 303) or equivalent introductory undergraduate quantitative methods course.

Learning Outcomes

Upon completion of this course, students will be able to:

1) Demonstrate the understanding about various statistical inference techniques and basics of the research design.
2) Explain how quantitative methodology can help guide environmental and resource management policies.
3) Learn how to collect and analyze data, and interpret results.
4) Critically read articles which present data analysis, and discuss the relationship between theory and the real world problems.
5) Use applied quantitative skills, including both linear and non-linear regression analysis.
6) Practice the above knowledge using hands-on case studies, real life examples and data
7) Identify statistical methods appropriate for different marine resource management and policy research context.
8) Apply the use of STATA and other statistical software
9) Integrate, synthesize and communicate different ideas and concepts gained from course readings, discussions and lectures.

Instructor Information
Name Meri Davlasheridze, PhD
Telephone number 409-741-4338
Email address davlashm@tamug.edu
Office hours TBD
Office location OCSB 362

Textbook
Required:

Software:
STATA – statistical software. Student limited term licensing for STATA package is available at [http://sell.tamu.edu/](http://sell.tamu.edu/).
You can alternatively use the statistical software of your choice (e.g. R).

Recommended:

There will be additional reading assignments that will aim to help students to critically read articles which presents a data analysis as well as get acquainted with various quantitative techniques and methods appropriate for resource management and policy related issues.

Course Structure
A typical week of this course will be split into two parts: in the first one, the instructor will lecture on major concepts related to quantitative methods. Students will discuss assigned readings, if applicable. In the second part, using data and statistical software students will be introduced how to practically implement theoretical notions learnt during the first part of the class. Laptops are required for this class.

Grading Policies
- Homework Sets 40%
- Mid-Term Exam 15%
- Term Paper 30%
- Presentation, participation & attendance 15%
**Homework Sets**

There will be several homework sets and will consist of two parts. The first part will involve application of methods learnt during the class using actual dataset provided by the instructor or collected by a student. The students should estimate the model using the software of their preference. The second portion of the homework assignment entails analyzing the estimated results and writing up a brief summary about the implications of these results in the context of the problems stated. The assignments that do not interpret quantitative results will automatically receive zero grade.

**Mid-term exam**

Mid-term exam is a take-home exam and will cover the major concepts related to data analysis and quantitative methods.

**Term Paper**

The term paper should be an original research (professional) paper that will be based on real dataset and will apply a quantitative method(s) learned throughout the semester. The research question should be related to the coastal and marine resources management and policy topics. The topics must be approved by the instructor (in the form of a one page summary statement due on the date of the midterm exam). Students are encouraged to explore research ideas that will likely develop into a final thesis or a professional paper. In the final paper you should highlight the significance and policy relevance of the research, conduct relevant literature review, propose the most appropriate statistical method to analyze your data, collect data and estimate the model to answer research questions examined.

**Presentations**

Presentations will be held during the last 2 classes of the semester and you should have the draft of your term paper ready by the end of the 14th week. Each student will be given an opportunity to present their research paper and preliminary findings.

**Attendance and Participation**

Attendance and participation are very important for this class and record will be taken at the beginning of every class. You should read all assigned readings and be prepared to participate in class discussions at all times.

**Interpreting Grades:**

<table>
<thead>
<tr>
<th>Grades</th>
<th>Final Points</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
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<td>B</td>
<td>80-89</td>
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<tr>
<td>C</td>
<td>70-79</td>
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<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>below 60</td>
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</tbody>
</table>
Tentative Course Schedule

The schedule below is subject to modification. The instructor will be updating the schedule and announcing changes, if necessary. Students are expected to keep themselves up to date with the schedule.

<table>
<thead>
<tr>
<th>Week</th>
<th>Class</th>
<th>Topic</th>
<th>Readings</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19-Jan</td>
<td>Review of Probability</td>
<td></td>
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<td></td>
<td>21-Jan</td>
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<tr>
<td>2</td>
<td>26-Jan</td>
<td>Review of Statistics</td>
<td></td>
<td>HW #1</td>
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<td></td>
<td>28-Jan</td>
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<tr>
<td>3</td>
<td>2-Feb</td>
<td>Simple Regression Model</td>
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<td></td>
<td>4-Feb</td>
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<tr>
<td>4</td>
<td>9-Feb</td>
<td>Simple Regression Model</td>
<td></td>
<td>HW #2</td>
</tr>
<tr>
<td></td>
<td>11-Feb</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>16-Feb</td>
<td>Multiple Regression Analysis: Estimation</td>
<td></td>
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<td></td>
<td>18-Feb</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>23-Feb</td>
<td>Multiple Regression Analysis: Inference</td>
<td></td>
<td>HW #3</td>
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<tr>
<td></td>
<td>25-Feb</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Mar, 1</td>
<td>Multiple Regression Analysis with Qualitative Information</td>
<td>HW #4</td>
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<td></td>
<td>Mar, 3</td>
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<td>8</td>
<td>Mar, 8</td>
<td>Heteroskedasticity</td>
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<td>Mar, 10</td>
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<td></td>
<td>Mar, 15</td>
<td>Spring Break – no classes</td>
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<td></td>
<td>Mar, 17</td>
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<tr>
<td>9</td>
<td>Mar, 22</td>
<td>Simple Panel Data Methods</td>
<td></td>
<td>HW #5</td>
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<tr>
<td></td>
<td>Mar, 24</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>Mar, 29</td>
<td>Fixed Effects and Random Effects Model</td>
<td></td>
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<tr>
<td></td>
<td>Mar, 31</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Apr, 5</td>
<td>Instrumental Variable Estimation</td>
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<td>HW #6</td>
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<tr>
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<td>Apr, 7</td>
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<tr>
<td>12</td>
<td>Apr, 12</td>
<td>Limited Dependent Variable Model</td>
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<td></td>
<td>Apr, 14</td>
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<tr>
<td>13</td>
<td>Apr, 19</td>
<td>Limited Dependent Variable Model</td>
<td></td>
<td>HW #7</td>
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<tr>
<td></td>
<td>Apr, 21</td>
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<td></td>
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<td>14</td>
<td>Apr, 26</td>
<td>Presentations</td>
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<td>Apr, 28</td>
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<tr>
<td>15</td>
<td>May 3</td>
<td>Final Paper Due</td>
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<tr>
<td></td>
<td>Mar 5</td>
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Various Institutional Policy Statements

Disabilities Act (ADA) Policy Statement:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Counseling Office, Northern Student Center, or call (409)740-4587.

Plagiarism:

Plagiarism is most commonly defined as copying a portion(s) of other students’ paper(s) or some published work without proper citations. (Texas A&M University, University Writing Center, http://writingcenter.tamu.edu). When discovered, serious academic penalties will be imposed.

Aggie Honor System:

Aggie Honor Code: “An Aggie does not lie, cheat, or steal or tolerate those who do.”
Upon accepting admission to Texas A&M University at Galveston, 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 TAMUG community from the requirements or the processes of the TAMUG Honor System.
For additional information: http://www.tamu.edu/honorsystem/.

Statement on Absences:

Information concerning absences are contained in the University Student Rules Section 7 http://www.tamug.edu/stulife/Academic%20Rules/Rule%207.pdf. The University views class attendance as an individual student responsibility. All students are expected to attend class and to complete all assignments. Please consult the University Student Rules for reasons for excused absences, detailed procedures and deadlines as well as student grievance procedures (Part III, Section 45).

Statement on the Family Educational Rights and Privacy Act (FERPA):

FERPA is a federal law designed to protect the privacy of educational records by limiting access to these records, to establish the right of students to inspect and review their educational records and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings. To obtain a listing of directory information or to place a hold on any or all of this information,
please consult the Admissions & Records Office. Items that can never be identified as public information are a student's social security number or institutional identification number, citizenship, gender, grades, GPR or class schedule. All efforts will be made in this class to protect your privacy and to ensure confidential treatment of information associated with or generated by your participation in the class.
Texas A&M University
Departmental Request for a New Course
Undergraduate * Graduate * Professional
* Submit original form and attach a course syllabus.*

Form Instructions

1. Course request type: ☐ Undergraduate  ☑ Graduate  ☐ First Professional (DEG, MD, JD, PharmD, DMD)

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

3. Course prefix, number and complete title of course: MARS 693 Professional Study for Marine Resource Management

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

5. Prerequisite(s): approval of instructor

Cross-listed with: Stacked with:

Cross-listed courses require the signature of both department heads

6. Is this a variable credit course?  ☑ Yes  ☐ No  If yes, from 1 to 3

7. Is this a repeatable course?  ☑ Yes  ☐ No  If yes, this course may be taken 3 times.

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

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

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

10. This course will be:

   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

Masters of Marine Resources Management professional (non-thesis) track

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

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

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

13. Prefix: MARS  Course #: 693  Title (excluding punctuation): Professional Study for MARM

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<th>Lab</th>
<th>Other</th>
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<th>CHG and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>EICE Code</th>
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<td>16 - 17</td>
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Approval recommended by:

Department Head or Program Chair (Type Name & Sign) Date: 10/15/15

Chair, College Review Committee Date: 10/15/15

Dean of College Date: 11-5-15

Chair, GC or UCC Date: Effective Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
Course title and number: Professional Study (MARS 693)
Term: Fall/Spring/Summer 201x
Meeting times and location: TBA

Catalog Description


Course Description and Prerequisites

The professional studies course is intended for non-thesis Marine Resource Management students, under the direction of their advisory committee chair, to focus on and prepare their professional paper. Prerequisite: Approval of instructor. Variable credit: 1-3.

Learning Outcomes

- Abstract writing and revising
- Preparation and writing of research paper.

Instructor Information

Name: TBA
Telephone number:
Email address:
Office hours:
Office location:

Textbook and/or Resource Material

None.

Grading Policies

Abstract = 30%
Paper = 70%
GRADING SCALE: 90-100 = A 80-89 = B 70-79 = C 60-69 = D Below 60 = F
A numeric grade of "70" is necessary to pass. Course grading will be Satisfactory/Unsatisfactory.

Attendance and Make-up Policies

Attendance Information concerning absences is contained in the University Student Rules
Section 7, http://www.tamug.edu/stulife/Academic%20Rules/Rule%207.pdf. The University views class attendance as an individual student responsibility. All students are expected to attend class and to complete all assignments on time. Please consult the University Student Rules for reasons for excused absences, detailed procedures and deadlines as well as student grievance procedures (Part III, Section 45). Additional guidelines may be provided by supervising faculty, in line with TAMUG attendance and make up policies.

Course Topics, Calendar of Activities, Major Assignment Dates

Exact schedule to be determined by the supervising faculty. The schedule will include due dates related to the preparation of the professional paper and meetings with the advisor to discuss progress. An example might be the following:

**Week Topic**
1. The elements of a professional paper
2. Publication guides
3. Scientific communications and abstract writing
4. Preparing an outline of the paper
5. Review of outline
6. Review of outline and first draft
7. Continued work on the paper
8. Continued work on the paper
9. Review of second draft of the paper
10. Continued work on the paper
11. Final revisions of the paper
12. First draft of abstract due
13. Abstracts Due
14. Meeting with student’s committee for review of paper and abstract

**Americans with Disabilities Act (ADA)**

The Americans with Disabilities Act (ADA) is a federal non-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this law 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 Counseling Office, Seibel Student Center, or call (409)740-4587. For additional information visit http://www.tamug.edu/counsel/Disabilities.html.

**Academic Integrity**

For additional information please visit: http://www.tamug.edu/HonorSystem

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

1. Course request type:
   - Undergraduate
   - Graduate
   - First Professional (D.D.S., M.D., J.D., Pharm.D., D.V.M.)

2. Request submitted by (Department or Program Name):
   Mechanical Engineering Department-Dwight College of Engineering
   MEEN 605- Gas Dynamics

3. Course prefix, number and complete title of course:
   MEEN 344 or equivalent

4. Catalog course description (not to exceed 50 words):
   Overview of gas flows at Mach numbers wherein the fluid can no longer be assumed incompressible; aerospace and mechanical engineering applications ranging from external aerodynamics to internal flows for applications such as propulsion and airframe designs for jets, rockets, missiles, and other devices; includes supersonic flows, shock waves, expansion waves, shock tubes, supersonic wind tunnels, gas flows with friction and gas flows with heat transfer

5. Prerequisite(s):
   MEEN 344 or equivalent

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

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

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

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

10. How will this course be graded? Grade
    S/U
    P/F (CLAD)

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

12. M.Eng, M.S. and Ph.D. Mechanical Engineering students

13. Approval recommended by:
    Dr. Daniel McAdams

    Department Head or Program Chair (Type Name & Sign) Date
    Chair, College Review Committee Date
    Department Head or Program Chair (Type Name & Sign) Date
    Dean of College Date
    Submitted to Coordinating Board by: Date
    Chair, GC or UCC

    Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
    Curricular Services – 07/14
TEXAS A&M UNIVERSITY
Department of Mechanical Engineering

MEEN 605- Gas Dynamics
Fall 2015

Instructor: Dr. Eric L. Petersen
Office: ENPO 418
Phone: (979) 845-1257
Email: epetersen@tamu.edu
Office hours: T 09:00-11:00; W 15:00-17:00 or by appointment

Description: Gas dynamics, also referred to as compressible flow and/or high-speed aerodynamics, is a subject dealing with gas flows at high enough Mach number wherein the fluid can no longer be assumed incompressible. Such flows occur in many aerospace and mechanical engineering applications ranging from external aerodynamics to internal flows for applications such as propulsion and airframe designs for jets, rockets, missiles, and many other devices. Topics within high-speed aerodynamics include supersonic flows, shock waves, expansion waves, shock tubes, supersonic wind tunnels, gas flows with friction, and gas flows with heat transfer.

Units: 3

Prerequisites: MEEN 344 – Fluid Mechanics (or its equivalent)

Cross-Listed: MEEN 472

Lecture Times: MWF 12:40-1:30 Room: ENPH 205

Website: E-learning

Required Text: Gas Dynamics
by James E. A. John and Theo G. Keith

Grading: Midterm Exams (4) 80% (20% each)
Project 20%

The course grade is based mainly on four mid-term exams, with a course project (for graduate students only) in addition. The grading will be relative but, in general, the minimum scale will be based on A = 90-100%, B = 80-89%, C = 70-79%, etc. In other words, if you have an 82 average but the class average is 85, you will still get a B.
Homework:
Working homework problems is a necessity for learning and practicing the material. The student is responsible for keeping up with the homework assignments. The homework will not be turned in for a grade. The solutions will be given some time prior to the exam that uses the material on which the problems are based.

Academic Honesty:
Ethical behavior and academic honesty are expected and required of students and even more so of engineers and scientists. Evidence of cheating during an exam or other assignment for credit may result in failure of the entire course for the student(s) in question. Examples of cheating include, but are not limited to: 1) sharing answers or any portion of the problem solutions during an exam, either verbally or on paper; 2) use of cell phones or other electronic communication devices during an exam; 3) talking out loud during an exam, including talking in a language other than English; 4) looking on the paper(s) of the person sitting nearby who is also taking the exam; 5) passing notes or other messages during an exam.

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: http://www.aggiehonor.tamu.edu/

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."

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

Absences:
Work missed due to absences will only be excused for University-approved activities in accordance with TEXAS A&M UNIVERSITY STUDENT RULES (see http://student-rules.tamu.edu/rule7.htm). Specific arrangements for make-up work in such instances will be handled on a case-by-case basis. In accordance with recent changes to Rule 7, please be aware that in this class any "injury or illness that is too severe or contagious for the student to attend class" will require "a medical confirmation note from his or her medical provider" even if the absence is for less than 3 days (see 7.1.6.2 Injury or illness less than three days.).
Course Outline:

Table 1 presents the overall course schedule. The planned exam dates are subject to change upon prior notice of the instructor at least one week in advance of the exam date. The following topics will be covered, roughly in the sequence provided. The suggested homework will be provided on the course website and should be worked as we progress through the course. Solutions will be provided after a suitable amount of time has passed for people keeping pace with the course to practice the homework problems on their own.

- Introduction to compressible flow; ideal gases; conservation of mass; conservation of energy
- momentum equation; 2nd Law of Thermodynamics; wave propagation in elastic media; Mach number; subsonic and supersonic flows
- isentropic flow of a perfect gas; varying area channels; stagnation properties; choked flow
- converging-diverging nozzles and diffusers; applications
- normal shock waves; governing equations for a stationary normal shock wave
- shock waves in a C-D nozzle; supersonic wind tunnels
- moving normal shock waves; reflected normal shock waves
- Shock tubes
- Oblique shock waves; oblique shock reflections
- gradual compressions and expansions; Prandtl-Meyer expansion fans; Prandtl-Meyer flow for a smooth compression
- supersonic oblique-shock diffuser; exit flow for supersonic nozzles; supersonic airfoils
- Fanno flow line; relations of Fanno flow; 1-D flow problems with friction
- Rayleigh flow line; relations of Rayleigh; 1-D flow problems with heat transfer

Table 1 Schedule for MEEN 605, Fall 2015

TBD
Learning Outcomes:

At the end of this course, students should be able to:

1. Understand basic relations of fluid mechanics and thermodynamics (continuity, momentum, energy, 2nd Law of Thermodynamics) from a control volume standpoint;
2. Apply the ideal gas assumption;
3. Use 1-D theory to understand basic wave propagation in gases and elastic media;
4. Evaluate sound speeds of ideal gases and calculate Mach numbers;
5. Categorize the various regimes defined by the Mach number (subsonic, supersonic, hypersonic, etc.);
6. Utilize the concept of stagnation temperature and stagnation pressure for understanding and solving basic gas dynamics problems;
7. Explain basic flow system behavior using T-s diagrams;
8. Evaluate the effect of area changes on 1-D compressible flow;
9. Determine when a flow system is choked and what regions should be subsonic, sonic, or supersonic;
10. Analyze the flow in nozzles, diffusers, and from pressurized vessels;
11. Design (conceptually) basic supersonic wind tunnels;
12. Analyze flow systems containing stationary normal shock waves;
13. Analyze flow systems containing stationary oblique shock waves;
14. Determine the location of a stationary shock wave in a converging-diverging nozzle;
15. Calculate the conditions within ducted systems containing moving shock waves;
16. Understand the fundamentals of shock tubes;
17. Evaluate the pressure and Mach number changes through an expansion fan (Prandtl-Meyer flow);
18. Apply oblique shock waves and expansion fans toward the design of supersonic airfoils;
19. Apply oblique shock waves and expansion fans to supersonic nozzles and their exhaust streams;
20. Perform calculations on a compressible, 1-D internal flow system with friction (optional);
21. Analyze compressible, 1-D internal flows with heat transfer (optional);
22. Sketch Rayleigh and Fanno lines on a T-s diagram (optional);
23. Use look-up tables for solving basic compressible flow problems;
24. Make small computer/EXCEL/MATHCAD programs for solving the basic relations of compressible flow using a computer and/or calculator without having to resort to look-up tables.
Departmental Request for a New Course
Undergraduate • Graduate • Professional
- Submit original form and attach a course syllabus.

Form Information:

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

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

3. Course prefix, number and complete title of course: NUEN 847 Uncertainty Quantification in Nuclear Science and Engineering

4. Catalog course description (not to exceed 50 words):
Predictions of computer codes when the inputs to those codes are uncertain. We will demonstrate how to build confidence in computer models and make a qualified prediction.

5. Prerequisite(s): Graduate classification or approval of instructor

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

7. If yes, from ______ to ______

8. Is this a repeatable course? ❑ Yes ❑ No

9. If yes, this course may be taken ______ times.

10. Will this course be repeated within the same semester? ❑ Yes ❑ No

11. Will this course be submitted to the Core Curriculum Council? ❑ Yes ❑ No

12. How will this course be graded? ❑ Grade ❑ S/U ❑ PF (CLMD)

13. This course will be:

a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

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

NUEN graduate degree programs (MS, ME, PhD)

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

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

16. This course requires credit hours (if cross-listed course).

NUEN 847 UNCERTAINTY QUANT FOR NUEN

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Approval recommended by:

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

Dean of College Date

Chair, GC or UCC Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
Course title and Number: NUEN 647: Uncertainty Quantification in Nuclear Science and Engineering
Term: Fall 2016
Meeting times and location: TR 2:20-3:35pm, ETB 1035

Course Description and Prerequisites
Simulation-based prediction is common in many fields of engineering, and nuclear engineering is no exception. This course asks, and begins to answer, the question of how can we have confidence in the predictions of computer codes when the inputs to those codes are inherently uncertain. We will demonstrate how to build confidence in computer models, find the important uncertain parameters, and make a qualified prediction.

Course Outcomes and Objectives
At the end of this course you will understand what it takes to make simulation-based predictions with quantified uncertainties. Specifically, the student will

1. Compare simulation results with experiments.
2. Calibrate simulation parameters to match experimental results.
3. Discuss the problem of defining a “domain” of validation.
4. Learn what code-to-code comparison can and can’t do.
5. Perform a sensitivity analysis on a numerical code.
6. Propagate uncertainties in the input parameters to the final simulation result via stochastic sampling, polynomial chaos, and reliability methods.
7. Use “intrusive” methods to propagate the uncertainties in a prediction.
8. Evaluate the effect of epistemic uncertainties on a simulation.
9. Use Bayesian inference to reduce input uncertainties.

Instructor Information
Name: Ryan G. McIlraren, PhD.
Telephone Number: (979) 862-1779
Email address: rgm@tamu.edu
Office Hours: W 4-5pm or by serendipity
Office Location: ZACH 335W

Textbook and/or Resource Materials
The class notes and various handouts will serve in place of a textbook. Additional supplementary material can be found in the following resources:

P. Knupp and K. Salari, Verification of Computer Codes in Computational Science and Engineering, Chapman and Hall/CRC.
Gilks, Richardson, and Spiegelhalter, Markov Chain Monte Carlo in Practice, Chapman and Hall/CRC.
Calin and Louis, Bayesian Methods for Data Analysis, Chapman and Hall/CRC.
Santner, Williams, and Notz, Design and Analysis of Computer Experiments, Springer.
Grading Policies

The course grade will be computed based on the following weights:
Homework: 30%
Project: 30%
Starred Problems: 30%
Class Participation: 10%

Course Topics, Calendar of Activities, Major Assignment Dates

Topics
1. Verification/Review of numerical approximations (3 lectures)
2. Validation Data (2 lectures)
3. Uncertainty Quantification:
   a. Prob/Stats preliminaries (1 lecture)
   b. Perturbation / first-order sensitivity
   c. Sampling methods (2 lectures)
   d. Reliability methods (1 lecture)
   e. Polynomial Chaos/Collocation methods (2 lectures)
4. Surrogate-based Methods
   a. Linear regression (1.5 lectures)
   b. Bayesian statistics (1.5 lectures)
   c. Markov Chain Monte Carlo sampling (1 lecture)
   d. Gaussian Process Regression (2 lectures)
   e. MARS (2 lectures)
   f. Applications of surrogates (2 lectures)
5. Calibration and Prediction
   a. Calibration methods (2 lectures)
   b. Predictive models (2 lectures)
6. Epistemic Uncertainty (2 lectures)

Calendar of Activities by Week

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<thead>
<tr>
<th>Week</th>
<th>Lecture 1</th>
<th>Lecture 2</th>
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<tbody>
<tr>
<td>1</td>
<td>Review of numerical approximations</td>
<td>Verification</td>
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<tr>
<td>2</td>
<td>Verification</td>
<td>Validation Data</td>
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<tr>
<td>3</td>
<td>Validation</td>
<td>Prob/Stats preliminaries</td>
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<tr>
<td>4</td>
<td>Perturbation/1st order sensitivity</td>
<td>Sampling Methods</td>
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<tr>
<td>5</td>
<td>Sampling Methods</td>
<td>Reliability Methods</td>
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<tr>
<td>6</td>
<td>Polynomial Chaos</td>
<td>Polynomial Chaos</td>
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<tr>
<td>7</td>
<td>Linear Regression</td>
<td>Linear Regression/Bayesian Stats</td>
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<tr>
<td>8</td>
<td>Bayesian Stats</td>
<td>Markov Chain Monte Carlo</td>
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<tr>
<td>9</td>
<td>Gaussian Process Regression</td>
<td>Gaussian Process Regression</td>
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<td>MARS</td>
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<tr>
<td>11</td>
<td>Application of Surrogates</td>
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<td>12</td>
<td>Calibration Methods</td>
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<td>13</td>
<td>Predictive Models</td>
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<td>Project Presentations</td>
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Final course grade ranges:

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<td>80 - 89.9%</td>
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<td>70 - 79.9%</td>
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<td>60 - 69.9%</td>
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Other Pertinent Course Information

Computer Usage
Appropriate use of engineering software and compilers will be encouraged. Justified use of relevant nuclear engineering codes will also be supported.

Americans with Disabilities Act (ADA)

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ATTENDANCE POLICY

The university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments. In all such cases for University Excused absences, a student will be expected to submit a "Texas A&M University Explanatory Statement for Absence from Class" form available at http://student-rules.tamu.edu/rule07.

Religious Holidays

If you are a member of a religious faith that has one or more holidays which require you to be absent from any class listed above, please tell your instructor at least two weeks in advance of your absence and make arrangements to make-up the class.

Copyrights

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

Academic Integrity

All students at Texas A&M University are bound by the Aggie Honor Code:
"An Aggie does not lie, cheat or steal, or tolerate those who do."

For more information, the student is referred to the Honor Council Rules and Procedures on the web at http://aggiehonor.tamu.edu.

As commonly defined, plagiarism consists of passing off as one's own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules [http://student-rules.tamu.edu/], under the section "Scholastic Dishonesty."

Professional Behavior

An important attribute of your professional development is that you act and speak in a manner that will not offend others giving particular care to diversity issues.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

1. Course request type:  □ Undergraduate  √ Graduate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):  Department of Performance Studies
3. Course prefix, number and complete title of course:  PERF 606: Performing Gender and Sexuality through Music
4. Catalog course description (not to exceed 50 words):  Examination of how gendered and sexual identities are explored and contested through musical performance.

5. Prerequisite(s):

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

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

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Approval recommended by:
Donnieo Dow  □  Oct 6, 2015
Chair, College Review Committee  □  Date
Date  10-2-15

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

Submitted to Coordinating Board by:

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Performing Gender and Sexuality through Music
Fall/Spring Semester 20xx

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

Course Number: PERF606
Course Time: TBD
Classroom: LAAH 227

PREREQUISITE
Graduate Classification

CLASS DESCRIPTION
The way we perform our ideas about gender and sexuality impact and affect our daily lives. Moreover, scholars have explored the ways in which those ideas are culturally constructed. Using a performance studies lens, we can consider how gendered and sexual identities are constituted, explored, and contested through musical performances, and also how social, economic, and political processes influence and regulate those performances. For instance, how do we “read” the voice as gendered? How are gender norms defined and expressed through music, song, and dance? What songs or performers have contested sexual norms and influenced social change? How do audiences interpret and react to performers that explore the margins of sexual or gender norms? This class will explore music from a variety of cultures, genres, and time periods to examine the relationship between musical performance, gender, and sexuality. Readings and case studies draw from a variety of theoretical and methodological frameworks, including psychoanalysis, feminist scholarship, sexuality studies, performance studies, Marxism, structuralism, post-structuralism/post-colonial studies, and queer studies.

LEARNING OUTCOMES
Become familiar with diverse examples of how music reflects and expresses gender and sexuality in a variety of cultures and time periods.
Situate ethno/musicological research about gender and sexuality within different theoretical frameworks (i.e. queer studies, feminist scholarship, post-structuralism, etc.).

Summarize the ways in which various research and writing methodologies developed in conjunction with the theoretical frameworks listed above, and give appropriate examples.

Integrate the theories, research methodologies, and writing styles discussed in the class into one’s own research and performance interests.

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

Develop skills for critically thinking about one’s own performance of gender and sexuality.

**REQUIRED MATERIALS**

All required readings will be available through library databases or Course Reserves. See the schedule and course readings list at the end of this syllabus.

**ASSIGNMENTS**

**Reading Responses, 30 pts:** Write 10 responses to the weekly assigned readings. Do not merely summarize; your response could consider the main points or theoretical interventions of the readings, evaluate strengths or weaknesses therein, make connections to other theories or case studies we’ve discussed, apply relevant ideas to your own research performance interests, and/or suggest questions or topics for class discussion. Since your classmates may be reading different works than you, this will prepare you to give a brief synopsis of the work, its significance, and the issues it raises. Summaries should be 1 to 1 ½ single-spaced, typed pages, and are due at the beginning of class. Include a works cited section. Late reading summaries will only be accepted in the event of an excused absence, according to Student Rule 7: http://student-rules.tamu.edu/rule07.

**Attendance, Preparation, Participation, 10 pts:** Active engagement in graduate seminars prepares you to effectively participate in the broader academic community. In a small seminar such as this, your regular attendance, diligent preparation of the readings, and thoughtful participation in discussion is vital to how we all benefit from our meetings. Please come to class prepared to actively engage with the assigned readings, consider their theoretical implications, apply relevant concepts to your own interests, and develop your ability to engage with others in respectful but vigorous scholarly debate and conversation. Bring your readings to class. We will foster a respectful space in which to both speak and listen. One unexcused absence will be allowed; more will negatively affect your attendance grade (see Student Rule 7.1).

**Performance Report (and Presentation/Performance), 25 pts:** Attend a musical performance and write a report that addresses how gender and sexuality is performed
through the work, using the theories discussed in class up to Week 8. You will discuss the piece and share your experience of it in class. As an alternative, you could create your own performance piece that addresses gender and/or sexuality through music, and write a short paper connecting your artistic work to the topics addressed in the class.

Final Paper (and Presentation/Performance), 35 pts: You will write a final paper of 5500-6500 words that applies the theories or texts from this class to either a) your own research on the performance of gender and/or sexuality in music or b) to your development of a performance that addresses gender and/or sexuality through music. Rough drafts are due Week 14, and you will also present your performance or your original research and analysis in class that week. Final papers are due on the first Monday of final exams. Late papers will be penalized one letter grade per day. Presentations can only be made-up in the event of an excused absence.

**GRADING RUBRIC**

A = 100-90 pts: Exceptional and illuminating work. Writing is engaging, confident, clear, and free of errors. The argument is easily identifiable and well supported by a variety of evidence. Demonstrates original thought, deep engagement with course themes, and unique applications of major concepts or methods. Shows potential to be developed for publication or public presentation.

B = 89.5-80 pts: Demonstrates above average work. Writing is mostly interesting and readable, with few issues of clarity and few surface errors. The argument is mostly clear and well supported. Demonstrates active engagement with course themes and efforts to think in new and compelling directions. Application of course concepts and methods may be pedestrian or require further development.

C = 79.5-70 pts: Average work. Writing has issues with clarity, readability, and maintaining the reader’s attention. The argument may be unclear and lack sufficient evidence. Demonstrates familiarity with course themes, but does not extend investigations beyond our readings or classroom conversations. Course concepts may be illustrated, but not applied to new objects or inquiries.

D = 69.5-60 pts: Demonstrates unacceptable level of work. Writing may have significant issues with clarity and may contain many errors. Arguments are unoriginal, difficult to follow, and not compelling. Indicates a facile engagement with course themes and a lack of graduate level thinking.

F = 59.5-0 pts: Does not satisfy the minimal requirements of the assignment

**ACADEMIC INTEGRITY**

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

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state
their commitment on examinations and written assignments. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit http://aggiehonor.tamu.edu.

AMERICANS WITH DISABILITIES ACT (ADA)

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

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

SCHEDULE OF TOPICS AND READINGS

Week One: Introduction


Week Two: First Wave Feminism


Choose one of the following:

**Week Three: Second Wave Feminism**


Choose one of the following:


Choose one of the following:


**Week Four: Sexuality and the “New Musicology”**


Choose two of the following:


**Week Five: Third Wave Feminism and Post-Colonial Studies**


Choose one of the following:


**Week Six: Post-Colonialism and Third Wave Feminism: Case Studies**
Choose two of the following:


**Week Seven: Gender and Performativity**


Week Eight: Performances or Performance Report Presentations

Week Nine: Structuralism and Post-Structuralism
Half the class will read one and the other half the other:


Week Ten: Masculine, Feminine, and Queer Performances
Choose two:


AND Choose one:


Week Eleven: Music and Homosexuality
Choose three:


Hubbs, Nadine. 2007. “‘I Will Survive’: Musical Mappings of Queer Social Space in a Disco Anthem.” In *Popular Music* 26(2): 231-244.


**Week Twelve: Ethnicity and Nationality**

Choose two:


**Week Thirteen: Ethical Considerations and Fieldwork**


And choose one of the following to survey:


**Week Fourteen: Presentation of Research Papers or Performances**

Research Paper Drafts Due
Research Papers Due the 1st Monday of Final Exam Week

**COURSE READINGS AND OTHER SUGGESTED SOURCES**


Hubbs, Nadine. 2007. “‘I Will Survive’: Musical Mappings of Queer Social Space in a Disco Anthem.” In *Popular Music* 26(2): 231-244.


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

Form Instructions
1. Course request type: □ Undergraduate ☑ Graduate □ First Professional (DEE, MD, JD, PharmD, D/V/M),
2. Request submitted by (Department or Program Name): Department of Performance Studies
   PERF607: Performance and Technology
3. Course prefix, number and complete title of course:

4. Catalog course description (not to exceed 50 words):
   Explores the intersection of performance and technology with special emphasis on the impact of technology on aesthetics, social and political formations, and the body.

5. Prerequisite(s):
   Graduate Classification
   Cross-listed with: Stacked with:

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

13. Prefix  Course #  Title (excluding punctuation)
    PERF 607  Performance Technology

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Approval recommended by:
Donnellie Doe [Signature] [Date: Oct 1, 2015]
Department Head or Program Chair (Type Name & Sign) Date

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

Submitted to Coordinating Board by:
Associate Director, Curricular Services [Signature] [Date: 12-15-15]

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
PERF607: Performance and Technology

Dr. James Ball  
jimball@tamu.edu  
Dept. Phone: 979-845-3355  
Course Time: TBD

Fall/Spring 201X  
Office Hours W1:00 – 3:00  
LAAH211  
Classroom: LAAH227

Prerequisite: Graduate Classification

COURSE DESCRIPTION:
How do we think critically within the intersection of performance and technology? Looking primarily at innovations of the 19th, 20th, and 21st centuries, this course will explore the dramatic changes to our social, cultural, and aesthetic lives brought on by the advent of new technologies. How have technologies like photography, sound recording, and cinema affected the arts of theatre and performance? How will new technologies continue to impact the aesthetics and politics of live performance?

This course will also investigate the relationships between technology, the body, and our social lives. How has technology configured or reconfigured our experience of everyday life? How are questions of race, class, gender, and sexuality deployed and impacted by particular technologies and the discourses that surround them? What insights can performance studies provide to an investigation of the ways in which technology intersects our political subjectivity? Themes and sites of analysis will include: robots, cyborgs, cybernetics, and the post-human; video games, social networks, and the virtual; war and security (electronic civil disobedience, surveillance societies, drones); technological genres (science-fiction theatres, intermedial performance); and biopolitics and body art.

A significant component of this course will include student performance research: a midterm solo performance exploring technology and the body, and a final group performance of an excerpt from a science fiction drama.

Learning Outcomes: By the end of this course students will:
- understand the role technology has played in the development of the performing arts in the 20th century;
- be familiar with key theories of the impact of technology on social life;
- understand how technology supports and structures the exercise of power;
- be able to identify and analyze the politics of particular technological phenomena;
- understand the utility of technology in social and political activism;
- understand how technology can advance and support performance research;
- and develop advanced skills for incorporating the analysis of technology into diverse scholarly projects.

MATERIALS:
Full citation information for all required readings has been listed below. All materials have been placed on reserve at the library. Articles can also be found through the usual online databases. I recommend purchasing any book we are reading in its entirety. You are responsible for bringing
required readings to class with you on the day they are assigned, regardless of the format in which you have obtained them.

ASSIGNMENTS
Weekly Blog: Students are expected to post weekly to the class eCampus blog. Weekly posts should respond to the week’s readings, and should point the class towards artists and works relevant to the readings. Posts can include images, video, sound recordings, gifs, etc., but should also include explanatory text making connections to the week’s readings explicit. Purely textual posts, responding in writing to the theories or concepts under discussion in each week’s readings are also welcome. Students are especially encouraged to support the performance research projects of their colleagues by posting links to plays, performances, or other works that could inspire or inform either the Solo Performance or Group Performance Project. In effect, our blog should become a dramaturgical database on performance and technology. Students are required to make 5 posts each week.

Midterm Paper: Students will compose a 3,000 word persuasive essay employing one or more theories encountered during the first 7 weeks of our course in an original research project. Given that the first half of our course focuses on the impact of technology on the development of the visual and plastic arts in the 20th century, archival projects investigating specific technological art objects are strongly encouraged.

Solo Performance: Students will compose an original, 5-10 minute long, solo performance investigating the impact of technology on embodied practices. These performances should interrogate the ways in which technology extends, constricts, and modifies the body in either exceptional or everyday circumstances. These performances should critically engage with some or all of the theories and concepts discussed in weeks 7-11 of our course (race and the internet, cyborgs, body artists, bodies in space, labor). During Week 9 students are required to email Dr. Ball with the proposed topic and scope of their Solo Performance.

Group Performance: Working in groups of 3 students will select one play from the dramas assigned for week 14 of our course. Students will be responsible for presenting a 10-15 minute excerpt from or inspired by their selected work. This performance will include a significant dramaturgical component: students must again use the theories and concepts encountered in our course to critically engage and illuminate the text. More than a scene study exercise, this performance must take advantage of the play text and theatrical event to further advance our classroom investigations of the nexus between art, technology, and society. During Week 12, each group should email Dr. Ball a proposal identifying the play they wish to work with.

Performance Research Report: Each student will be responsible for a 3,000 word performance research report. These reports must take advantage of either/both the Solo or/and Group Performance projects in the context of an original scholarly essay. Use and cite knowledge gained through our performance research projects to develop and support and original thesis on the relationship between performance (everyday or aesthetic) and technology. Students are encouraged (but not required) to incorporate outside research and additional scholarly methodologies to develop their arguments.
GRADING
Weekly Blog – 10 points
Midterm Paper – 25 points
Solo Performance – 20 points
Group Performance – 20 points
Performance Research Report – 25 points

Final Grade Calculation:
A=100-90 points: Student demonstrates an exceptional ability to conceptualize and present ideas; efforts go beyond meeting basic criteria. Student demonstrates significant intellectual curiosity, seeking out new ideas and information, in thorough and original ways, demonstrating initiative and imagination, and the potential to make important contributions to the field of performance studies. The student’s written and oral work contains few to no errors. Throughout the semester the student has shown a trajectory of development and growth. Student exceeds expectations for research, writing, or speaking at the graduate level in a Research I university.
B=89-80 points: Student provides solid work that meets basic requirements with evident language competency and few errors. Student ably engages, but generally does not go beyond, information and ideas readily accessible through class, readings, and discussions. Student’s research, writing, and speaking are commensurate with graduate standing in a Research I university.
C=79-70 points: Student’s work is of marginal quality. Student’s written work and participation in classroom discussions demonstrate limited ability or effort to engage ideas and information. Written and oral assignments have many errors (sentence structure, spelling, grammar, etc.) and/or are underprepared. Student’s research, writing, and speaking are slightly below expectations for students with graduate standing in a Research I university and should be improved with additional effort.
D=69-60 points: Quantity and quality of work falls far below the expectations of graduate students in a Research I university. Student should reflect on their working habits and seek out additional help where it is needed.
F=59-0 points: Student has not completed significant portions of the course in a satisfactory manner.

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**COPYRIGHT STATEMENT:** Class lectures and other materials are copyrighted and they may not be reproduced for anything other than personal use without written permission from the instructor.

**SCHEDULE OF CLASSES:**

**Week 1:** Technology and the Avant-Garde: Manifestos

Week 2: Photography


Week 3: Cinema and Post-Cinema


Week 4: Sound Recording/Radio

Week 5: Virtual Reality

Week 6: Videogames

Week 7: The Internet

**Midterm Paper Due.**

**Week 8:** Cyborgs, Cybernetics, Robots
Haraway, Donna. “The Cyborg Manifesto” (Online)


**Week 9:** Body Artists


**Solo Performance Proposal Due**

**Week 10:** Bodies in Space

**Week 11:** Labor
Marx, Karl. “[Fragment on Machines],” *Economic Manuscripts of 1857 – 1858* (Online)


**Solo Performance Project Due**

**Week 12:** Surveillance, Discipline, Control. Drones.


**Group Performance Proposal Due.**

**Week 13: Protest**

**Week 14: Science Fiction Theatres* 
   Anthology:

Other suggested plays:
Ayckburn, Alan. *Henceforward....*
Harrison, Jordan. *Marjorie Prime.*
Kapek, Carl. *R.U.R. (Rossum's Universal Robots).*
Meriwether, Elizabeth. *Heddatron.*
Padmanabhan, Manjula. *Harvest.*
Washburn, Anne. *Mr. Burns, A Post-Electric Play.*

*Note: This list will be expanded throughout the semester via the combined efforts of our class as groups advance in preliminary preparations for their performance project. Only those plays selected for group performance projects will be required reading for the class as a whole during week 14.**

**Group Performance Project Due**
**Performance Research Report Due**

*Syllabus subject to change throughout the semester!*
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus *

Form Instructions:

1. Course request type:  □ Undergraduate  ✓ Graduate  □ First Professional (D.D.S., M.D., J.D., PharmD, D.V.M)

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

3. Course prefix, number and complete title of course: PER608: Performance and the Art of Government

4. Catalog course description (not to exceed 50 words):
Examination of performance in political processes and institutions, using the tools of performance studies to analyze and interpret the work of states and governments.

5. Prerequisite(s):

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

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

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

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

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

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

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

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

   MA in Performance Studies

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

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

13. Prefix  Course #  Title (excluding punctuation)

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Approval recommended by:

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

[Signature]
Chair, Graduate Review Committee Date

[Signature]
Dean of College Date

[Signature]
Chair, GC or UCC Date

Submitted to Coordinating Board by:

[Signature]
Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
PERF608: Performance and the Art of Government

Dr. James Ball
jimball@tamu.edu
Dept. Phone: 979-845-3355
Course Time: TBD

Fall/Spring 201X
Office Hours M1:00 – 3:00
LAAH211
Classroom: LAAH227

Prerequisite: Graduate Classification

COURSE DESCRIPTION:
This seminar will investigate the affinities between performance and politics by examining those places where the work of governance and the theory and practice of performance overlap in their spatial, visual, and bodily effects. From presidential elections to legislative debates to diplomatic missions, the domestic and international activities of states constitute tightly choreographed spectacles for multifaceted audiences. However, the performances of states also provide points of intervention where activists and subversives may contest power. Popular protests, grassroots organizing, and revolutionary practices all emerge from the same spectacular ground on which constituted powers conduct their policies. This course considers the performances that emerge where political and social institutions meet the populations they govern, to study how subjects are made, how the law governs behavior, and how individuals perform to contest or invest in constituted powers.

Several questions will guide the course: How does the state configure our lived experiences? What are the particular dramatic and dramaturgical contours of our political institutions and the policies they write? How do artists engage with the realm of politics to progressive or conservative ends? How can we theorize political performance in order to do both politics and performance better? Staging a performance studies intervention in policy-making and political science, this course will identify and elaborate the avenues by which the study of performance can inform debates over governance, the law, rights, and violence. This course will travel between domestic and international realms, investigating performances in legislative sessions, presidential elections, mass demonstrations, reality television, religious ritual, military simulation, state dinners, and everyday life. A significant component of this course will include original student research on mass events, theatre, television, and film, as well as fieldwork observing and analyzing political spectacle as a live event.

Learning Outcomes: By the end of this course students will:
- understand the key theories and methodologies used by performance studies scholars to analyze public political performance;
- understand how the state enables or forecloses on the performances of persons and populations;
- understand the visual, spatial, and bodily dimensions of the exercise of state power;
- understand how the performing arts have been used to contest power;
- be familiar with the major stages on which geopolitical performance plays;
- be able to present original research in a formal conference format;
- and develop advanced research, analytical, and fieldwork skills.
MATERIALS
Full citation information for all required readings has been listed below. All materials have been placed on reserve at the library. Articles can also be found through the usual online databases. I recommend purchasing any book we are reading in its entirety. You are responsible for bringing required readings to class with you on the day they are assigned, regardless of the format in which you have obtained them.

Democracy+ and Aggie Agora
Our investigations this semester are designed to dovetail with the University’s ongoing Strengthening Democracy (Democracy+) initiative. Students are encouraged to supplement learning in this course by attending events hosted by the Aggie Agora. These include lectures, coffee hours, and workshops on issues ranging from engaged citizenship to speech writing, and visits from professionals working on the frontlines of the theatricality of politics. Participating in Aggie Agora events is NOT required to be successful in this course; however, our studies will enable us to bring a unique and valuable perspective to these events. A complete schedule of events will be distributed on the first day of class, and further information can be found at http://www.aggieagora.org.

ASSIGNMENTS
Participation: Students are expected to post a brief reflection (1 paragraph) on the week’s reading by 5:00 pm each Tuesday before class, on our Blackboard discussion board. These responses should engage with the material assigned for the coming class, highlighting compelling ideas, contesting less compelling ideas, and posing any questions that might arise in the course of your reading. Students are excused from posting during weeks in which they will be giving a presentation. Students are expected to be well prepared for discussion upon arrival in class, and they are expected to participate in discussion each week.

Conference Presentation: Each student will be responsible for one conference-style presentation over the course of the semester, paired to a particular week’s readings. This presentation must apply concepts and theories from that week’s readings to original research on specific performance event(s) or art object(s) selected by the student. Presentations should go beyond the illustration of major concepts from each week’s reading to consider how that week’s theoretical frameworks might be used to open a performance to analytical and scholarly scrutiny. As many of our readings will take us well beyond the usual frames of music, dance, performance art, or theatre, these presentations will serve as an opportunity to flex our academic muscles of application, making use of the readings to analyze particular art works and practices.

Students may present on any aesthetic performance(s) of their choosing. Presentations should run 20 minutes long. As a general rule of thumb, one page of double-spaced text = 1.5-2 minutes of speaking time. Rehearse your presentation as necessary to be sure that you do not exceed the allotted 20 minutes. Visual aids or handouts are encouraged. Students not presenting will be expected to act as an attentive and engaged audience, so that each presentation may be followed by a period of collegial and constructive discussion.

Political Performance Analysis: For this brief written assignment (2,000 words), students will attend a political event and write a thick description and performance analysis of their
experiences. The event might be: a campaign speech, rally, or debate; a session of local, state, or federal legislature; a trial or other legal proceeding; etc. While students are encouraged to seek out live events, in certain circumstances mediated events (e.g. televised presidential debates or UN webcasts) may be appropriate; in such cases the description should account for and discuss the role of mediation in the reception of the event. To support this assignment we will organize two optional class excursions outside of regular class meetings, to attend proceedings at the Brazos County Courthouse and to attend a meeting of the College Station City Council.

Resources:
272nd District Court:
CLASS VISIT: __________________________

Brazos County Agenda:
http://agenda.co.brazos.tx.us/

City of College Station Schedule of Events:
CLASS VISIT: __________________________

State Capitol Schedule of Events
http://www.capevent.legis.state.tx.us/capevent.aspx

US Congress Webcasts
https://www.congress.gov/

UN Webcasts
http://webtv.un.org/

Final Paper: Students are expected to write a 4,500-5,000-word research paper exploring any of the topics covered during the semester in greater depth. These papers should draw on the readings for the course and connect our seminar investigations to the student’s own particular research interests. Students may choose to develop material from either their presentation or performance analysis in their final paper, or may select a topic unrelated to earlier work.

GRADING
 Participation – 10 Points
 Conference Presentation – 20 Points
 Political Performance Analysis – 20 points
 Final Paper – 50 Points

Final Grade Calculation:
A=100-90 points: Student demonstrates an exceptional ability to conceptualize and present ideas; efforts go beyond meeting basic criteria. Student demonstrates significant intellectual curiosity, seeking out new ideas and information, in thorough and original ways, demonstrating initiative and imagination, and the potential to make important contributions to the field of
performance studies. The student’s written and oral work contains few to no errors. Throughout the semester the student has shown a trajectory of development and growth. Student exceeds expectations for research, writing, or speaking at the graduate level in a Research 1 university.

**B=89-80 points:** Student provides solid work that meets basic requirements with evident language competency and few errors. Student ably engages, but generally does not go beyond, information and ideas readily accessible through class, readings, and discussions. Student’s research, writing, and speaking are commensurate with graduate standing in a Research 1 university.

**C=79-70 points:** Student’s work is of marginal quality. Student’s written work and participation in classroom discussions demonstrate limited ability or effort to engage ideas and information. Written and oral assignments have many errors (sentence structure, spelling, grammar, etc.) and/or are underprepared. Student’s research, writing, and speaking are slightly below expectations for students with graduate standing in a Research 1 university and should be improved with additional effort.

**D=69-60 points:** Quantity and quality of work falls far below the expectations of graduate students in a Research 1 university. Student should reflect on their working habits and seek out additional help where it is needed.

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SCHEDULE OF CLASSES:
Week 1: Course Introduction

Week 2: Politics and Aesthetics

Week 3: Space
Ngugi wa Thiong’o “Enactments of Power: The Politics of Performance Space” TDR 41.3 (Fall 1997): 11–30


Week 4: Politics of Spectacle

Week 5: Power and Governmentality
SELECTION: Chapters 4, 5, 8-13; Pages 87-134, 191-361.

Week 6: Electoral Spectacles
SELECTION: Introduction and Chapters 2-3; Pages 1-42, 121-201

Week 7: Legislative Performance

Week 8: Theatre in the Courtroom

Political Performance Analysis Due in class.

Week 9: Diplomacy  

Week 10: Human Rights  


Week 11: Peacekeeping  
SELECTION: Chapters Introduction, 2, 3, 6-8; Pages 1-22, 42-73, 99-154


Week 12: Revolution  

SELECTION: Pages 1-85

Week 13: War  
SELECTION: Chapters 1, 4-7; Pages 1-21, 79-176

Week 14: The Magic of the State  
Final Paper Due via email.
Syllabus subject to change throughout the semester!
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
*Submit original form and attach a course syllabus.*

Form Instructions
1. Course request type:
   - □ Undergraduate
   - □ Graduate
   - □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):
   - School of Public Health - Environmental and Occupational Health
3. Course prefix, number and complete title of course:
   - PHEO 639, Hazardous Materials Management and Compliance
4. Catalog course description (not to exceed 50 words):
   - Types of hazardous materials; system of environmental laws governing management of hazardous materials as well as contaminants in air, water and solid waste; appropriate management and regulatory compliance; hazardous materials spills and response; hazard communication and right-to-know regulations. Hazard communication benchmarking and performance criteria.

5. Prerequisite(s):
   - none
   - Cross-listed with:
     - N/A
     - Stacked with:
     - N/A

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

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

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

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

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

10. This course will be:
   - □ required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   - □ None
   - □ an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   - □ Any master’s or doctoral program

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

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

13. Prefix
   - PHEO
   - Course #
   - 639
   - Title (excluding punctuation)
   - HAZ. MATLS MGMT & COMPLIANCE

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<th>SCH</th>
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<th>Admin Unit</th>
<th>Acad. Year</th>
<th>ITEC Code</th>
<th>Level</th>
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Approval recommended by:

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

Chair, College Review Committee Date

Dean of College Date

Chair, GC or UCC Date

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

Course title and number: Hazardous Materials Management and Compliance, PHEO 639
Term: Fall 2016
Meeting times and location: TBA
Instructor Name(s): Leslie Cizmas, PhD
Teaching Assistant(s): TBA
Telephone number: (979)-436-9324
Email address: LHCizmas@sph.tamhsc.edu
Office hours: By appointment
Office location: Room 102, SPH Administration Building

Course Description

Types of hazardous materials; system of environmental laws governing management of hazardous materials as well as contaminants in air, water and solid waste; appropriate management and regulatory compliance; hazardous materials spills and response; hazard communication and right-to-know regulations, hazard communication benchmarking and performance criteria.

Prerequisites

None

Course Competencies and Course Objectives

<table>
<thead>
<tr>
<th>MPH Competencies</th>
<th>Course Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the direct and indirect human health and safety effects of major environmental and occupational agents.</td>
<td>Describe hazardous materials.</td>
</tr>
<tr>
<td>Recognize adverse human health effects related to occupational and environmental exposures in both industrial and rural settings.</td>
<td>Explain the potential toxic effects or other health/safety effects of hazardous materials. Describe appropriate methods for management of hazardous materials.</td>
</tr>
<tr>
<td>Use information technology to access, evaluate, and interpret public health data.</td>
<td>Demonstrate use of Internet resources to gain up-to-date information regarding hazardous materials management and compliance</td>
</tr>
<tr>
<td>Describe the process in which policies are developed and implemented to handle and reduce environmental health risks and hazards.</td>
<td>Explain how policies are implemented and enforced to reduce environmental hazards. Describe the laws/regulations that govern hazardous materials management at the federal and state level Explain measures needed to comply with these laws/regulations.</td>
</tr>
<tr>
<td>Develop and implement strategies for mitigating environmental health hazards.</td>
<td>Describe methods for controlling environmental hazards, including solid waste, air emissions and</td>
</tr>
</tbody>
</table>


| Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities | Explain methods for hazard communication and hazard communication training | Describe how cultural and literacy issues may be addressed so that hazard communication is effective |

**Textbook and/or Resource Material**

**Course Textbook:**


**Additional Recommended texts/materials:**
Web resources as needed will be posted for the class.

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

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings/Assignments</th>
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<tbody>
<tr>
<td>1</td>
<td>Course introduction; hazardous materials and related occupational diseases</td>
<td></td>
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<tr>
<td>2</td>
<td>Air pollution control and mitigation</td>
<td>Quiz; Haight, Environmental Safety and Health Regulations, Ch 1</td>
</tr>
<tr>
<td>3</td>
<td>Water and wastewater</td>
<td>Quiz; Haight, Environmental Safety and Health Regulations, Ch 2</td>
</tr>
<tr>
<td>4</td>
<td>Solid waste</td>
<td>Quiz; Haight, Environmental Safety and Health Regulations, Ch 3</td>
</tr>
<tr>
<td>5</td>
<td>Hazardous waste</td>
<td>Quiz; Haight, Hazardous Material Management and Hazard Communication, Ch 1</td>
</tr>
<tr>
<td>6</td>
<td>Hazardous material spills and response</td>
<td>Quiz; Haight, Hazardous Material Management and Hazard Communication, Ch 2</td>
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<tr>
<td>7</td>
<td>Midterm Exam</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Hazard communication and right-to-know regulations</td>
<td>Quiz; Haight, Hazardous Material Management and Hazard Communication, Ch 3</td>
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<tr>
<td>9</td>
<td>Management systems</td>
<td>Quiz; Haight, Environmental Safety and Health Regulations, Ch 7</td>
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<td>10</td>
<td>Hazard communication benchmarking and performance criteria</td>
<td>Quiz; Haight, Hazardous Material Management and Hazard Communication, Ch 4</td>
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<td>11</td>
<td>Best practices in hazard communication</td>
<td>Quiz; Haight, Hazardous Material Management and Hazard Communication, Ch 5</td>
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<tr>
<td>12</td>
<td>Incidence management; liability and enforcement, best practices; ISO 14000;</td>
<td>Quiz; TBD</td>
</tr>
<tr>
<td>EPA's Next Generation Compliance</td>
<td>Quiz: TBD</td>
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<td>-----------------------------</td>
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<tr>
<td>13 Evaluation of program effectiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Student presentations</td>
<td>Student papers due at beginning of class</td>
<td></td>
</tr>
<tr>
<td>15 Final Exam - Cumulative</td>
<td></td>
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**Grading Policy**

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<table>
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<tr>
<td>Midterm Exam</td>
<td>25%</td>
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<tr>
<td>Class participation</td>
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<td>Quizzes over reading at beginning of class (lowest grade will be dropped)</td>
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<tr>
<td>Student presentation and paper</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
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**Grading Scale**

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<tr>
<td>80.0-89.9</td>
<td>B</td>
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<tr>
<td>70-79.9</td>
<td>C</td>
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<tr>
<td>60-69.9</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60</td>
<td>F</td>
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</table>

**Attendance and Make-up Policies**

Students are expected to attend all class presentations. The University views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located on-line at [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07). It is the student's responsibility to provide satisfactory evidence to the instructor to substantiate the reason for absence. Only the reasons specified by the university for being absent from an exam will be accepted. They include:

1. Participation in an activity appearing on the Univ. Authorized Activity List;
2. Confinement because of injury or illness that is too severe or contagious for the student to attend class;
3. Death or major illness in a student's immediate family;
4. Illness of a dependent family member;
5. Participation in legal proceedings or administrative procedures that require the student to be present;
6. Religious holy day;
7. Required participation in military duties;
8. Mandatory admission interviews for professional or graduate school that cannot be rescheduled.

To be excused from an exam for one of these reasons, the student must make arrangements with the instructor before the test is given. For authorized absences, the instructor will choose to either give a make-up test or modify the grading procedure to adjust for a missing test grade in a way that does not reduce the credits previously earned. For unauthorized absences, the instructor will decide on a course of action depending on the circumstances. Loss of credit for the missed test is a possible course of action.

**Other Pertinent Course Information**

Every effort will be made to ensure that power point lecture files, notes, articles and assignments are available online in a timely manner. Written assignments will be delivered thru the Blackboard course website. Handouts, changes in assignments or the schedule of class modules will be announced on the Bb course webpage. E-mail contact will be initiated with all students the first week of class. If you do not have
access to your assigned TAMHSC e-mail account, it is your responsibility to make the instructor aware of that fact so that other arrangements may be made. You are expected to use Blackboard e-mail address for all official correspondence.

**eCampus (Blackboard)**

If this course uses eCampus: Within the course's eCampus site you will access the learning materials, tutorials, and syllabus; discuss issues; submit assignments; take quizzes; email other students and the instructor; participate in online activities; and display your projects.

In order to access the course material you will need to go to login into Howdy and then click the eCampus button on the top right or look for Quick Links on the bottom of the School's homepage or go to [http://ecampus.tamu.edu](http://ecampus.tamu.edu). Please do not contact your instructor with technical problems. If you are having a technical problem with the course, review the Blackboard Learn Tutorials (at the top-right of School's Office of Academic Assessment and Instructional Technology website), or contact John C. Lingsweller in the School's Office of Academic Assessment and Instructional Technology. John may be reached at (979) 436-9409 or at lingsweller@sph.tamhsc.edu. For login issues (password not working), please contact TAMU Help Desk at helpdesk@tamu.edu via E-mail, or phone to (979) 845-8300. Your eCampus login is the same as your Howdy login (NetID).

**Computer Requirements for Online Courses**

For this and all online courses we recommend the minimum technical requirements outlined on our “SPH Computer Requirements for Online Courses” web page, located at [http://www.sph.tamhsc.edu/assessment-instructional/com-requirement.html](http://www.sph.tamhsc.edu/assessment-instructional/com-requirement.html). Distance Education/Technical Specifications.html.

All computing problems or other technical issues not related to eCampus, please contact:

- TAMHSC related account: helpdesk@tamhsc.edu via E-mail, or phone to (979) 862-8029
- TAMU related account: helpdesk@tamu.edu via E-mail, or phone to (979) 845-8300

Important!!! Save your work as you go along. Nothing is more discouraging than to lose an assignment due to a computer hang up! You may want to also make hard copies of your work to have “proof” and save yourself time and trouble!

**Plagiarism Virtual Course**

Plagiarism is the leading form of academic dishonesty that the School of Public Health has to address. As a SPH student, you are responsible for knowing what plagiarism is and how to avoid it. All SPH students are automatically enrolled in Plagiarism Virtual Course on eCampus. This virtual course provides you with information and examples related to plagiarism in an effort to reduce the number of reported incidents. Please find a tutorial and resources under “Content.” In addition, please find Turnitin, a software package that allows you to check whether you may have plagiarized your document. Please see Phuong Huynh: phuong@sph.tamhsc.edu for additional information.

**Course Evaluation**

Constructive feedback from students on course evaluations is taken very seriously at the School of Public Health. I am asking for your assistance in helping the School in its assessment of courses and faculty through your participation in the evaluation of your courses. As public health professionals you will one day have the responsibility to evaluate colleagues and health initiatives. The School views providing feedback on the School's courses as part of your professional responsibility.
SPH Mission

Our mission is to create and apply knowledge acquired from the disciplines of public health to the education of public health leaders and practitioners through our research, practice, and service in the state of Texas, nationally, and globally.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 045-1637. For additional information visit http://disability.tamu.edu

Academic Integrity

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Students are expected to adhere to all TAMUS, TAMU, HSC, and School policies regarding academic integrity and classroom conduct. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used, or tampering with the academic work of another student. Individuals found guilty of academic dishonesty may be dismissed from the degree program, and at a minimum will receive an F for the course. It is the student’s responsibility to have a clear understanding of how to reference other individuals’ work, as well as having a clear understanding in general as to the various aspects of academic dishonesty. A tutorial on this issue is available at http://SPH.tamhsc.edu/academic-affairs/academic-integrity.html. A plagiarism tutorial can be found in Blackboard. Information on the Aggie Honor Code can be found at http://aggiehonor.tamu.edu.

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

Copyright Statement

The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted by the instructor.

FERPA

The Federal Education Rights & Privacy Act requires that we advise students that by registering for this course, their HSC assigned e-mail address will be revealed to classmates and the instructor. By continuing your enrollment in the course you acknowledge your understanding of this policy.

By enrolling in this course you agree to the following statement: "I understand that as a result of registering for this course, my HSC/Blackboard assigned e-mail address will be revealed to classmates and the instructor."

Equal Opportunity Statement
The Texas A&M Health Science Center is an Equal Opportunity/ Affirmative Action employer. Inquiries regarding nondiscrimination policies may be directed to the Human Resources Officer by phone at (979) 436-9208, email hr@tamhsc.edu, or by mail at 200 Technology Way, College Station, TX 77845.

DISCLAIMER

This syllabus is representative of materials that will be covered in this class; it is not a contract between the student and the institution. It is subject to change. These changes will be communicated via email or posted as announcements. If you have any problems related to this course, please feel free to discuss them with the instructor.

Title IX

Title IX of the Education Amendments of 1972 protects people from sex discrimination in educational programs and activities at institutions that receive federal financial assistance. Texas A&M University and the Texas A&M Health Science Center are committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, the University does not discriminate on the basis of sex in its education programs and activities, and it encourages any student or non-student who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct by another student, member of the faculty or staff, or campus visitor or contractor, to immediately report the incident to any of the individuals persons or offices listed below.

WHERE TO REPORT:
James Nachlinger,
Executive Director, Payroll and HR Services
Title IX Coordinator
979-436-9207
nachlinger@tamhsc.edu

The University encourages students to immediately consult with or report incidents of sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to the TAMHSC Title IX Coordinator. Students may also report incidents of sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to any School of Public Health administrator, university administrator, official or unit supervisor, who is then responsible for promptly notifying any of the above Title IX coordinators of the reported incident.
Texas A&M University
Departmental Request for a New Course
Undergraduate + Graduate + Professional
Submit original form and attach a course syllabus.

Form Instructions:
1. Course request type:
   - Undergraduate
   - Graduate
   - First Professional (DDE, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name):
   Select or Type Department/Program Name
   - PSAA 624: Water Policy and Management
3. Course prefix, number and complete title of course:

4. Course description (not to exceed 50 words):

5. Prerequisite(s):
   - Graduate Classification
   - Cross-listed with:
   - Stacked with:

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

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

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

9. How will this course be graded?
   - Grade
   - S/U
   - Pass/No Pass

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

   Master of Public Service and Administration

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

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

13. Table:

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PSAA 624</td>
<td>WATER POLICY AND MGMT</td>
</tr>
</tbody>
</table>

Approval recommended by:

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

Curriculum Committee Date

Dean of College Date

Chair, Graduate Council Date

Associate Director, Curricular Services Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services - 07/14
Office Hours
My office hours are 2:30 pm to 4:00 pm on Wednesdays. Additional times will be set aside as needed. If these hours are not convenient, just let me know and we can make alternative arrangements. Due to other commitments, I will not generally be available on Fridays. My e-mail address is: kportney@tamu.edu. My office is located in the Allen Building, Room 1118. I can be reached there by telephone at extension 88031 (979-458 8031 from off campus).

Course Description
This course examines look at water policy, policymaking, management, conflict, and diplomacy. The primary focus of the course will be on water policy in the U.S., but it will also include substantial attention to the serious water issues as they are manifest in other parts of the world as well. It discusses the role of governmental institutions, political parties, political processes and behavior, public policies, and the political history in water governance, policy, policymaking, and management. It assumes that you have no particular knowledge of the political system or of environmental problems. This is an elective course for the PPA track, and counts toward the Energy, Environment, & Technology Policy and Management concentration.

One of the main missions of this course will be descriptive. In other words, we will spend much of our time trying to build a fairly detailed picture of how American, national, and international political institutions have tried to deal with issues of associated with water as a limited natural resource. To do this we will focus on a little historical background to policies and programs, and on what I call the "mechanics of public policy making." But, of course, we will go more deeply into some specific issues of water politics. For example, we will take a focused look at the operations of the U.S. Environmental Protection Agency to see how science and technology interact with politics to influence the decisions that are rendered there. We will also take a critical look at the social and political values that underlie contemporary environmental problems and the policies that purport to deal with them.

Course Prerequisites
Graduate classification.
Learning Objectives
The learning outcomes for this course include: being conversant with the federal (national) public policies associated with various aspects of water policy and management; becoming familiar with the rules and rulemaking processes as practiced by the U.S. Environmental Protection Agency; understanding the roles of federal, state, and sub-state agencies in implementing national water protection policies; and application of frameworks for analyzing and understanding water policymaking; evaluating the ability of government and governance systems to deal with water challenges during increasing times of water shortage; and becoming familiar with efforts within nations other than the U.S., and in the international context to address trans-boundary and trans-sector water conflicts.

Textbook and Readings
In order to investigate these and other issues, we will be reading from a number of sources, including several books that you can and should purchase. These include:


- Additional reading material is available on line (with links in the syllabus), or will be distributed in class from time to time. In addition to the usual in-class discussions, we will also take advantage of some other types of resources. For example, you may be asked to view a couple of videos, possibly to hear from a couple of guest speakers, and to make short in-class presentations on an assigned topic. An effort will be made to arrange two field trips. More information about these will be available in class. All of this is designed to try to make the experience of learning about environmental policies as fruitful and enjoyable as possible.

Grading Policies
The course will be graded using the standard TAMU grading policy as follows:
A = 90-100; B = 80-89; C = 70-79; D = 60-69; F = 59 and below

We will have an in-class, multiple-choice, mid-term exam on Tuesday October 20. The exam will only take about 30 minutes. This mid-term will be focused on the readings, and will count 20% of your total grade.

The class will be oriented around team-based integrated in-class presentations and written work based on these presentations. We will form some number of teams (most likely three teams), and each team will specialize in a particular area of water policy and management. Teams will be defined by the class based on student interests. Each team will be responsible for deciding which specific policies and aspects of these policies will be presented, and who on the team will be responsible for making each presentation. Each team member will be responsible for making a presentation on the designated aspect of the policy area. Immediately after the presentation, a short written summary of the presentation will be handed in, and this summary will be graded. This written summary will count 20% toward the final course grade.

There will be a final team project report due by noon on Friday December 11 (the first day of final exams). This final project will consist of a compilation of the individual written (revised)
assignments for each member of the team. Each team will prepare a single document or report that represents the accumulation and revision of the written work prepared by members of the team over the course of the semester. In this, the team will collectively endeavor to integrate and mold the individual papers into a coherent single document. Each team member will take responsibility for reading, commenting on, and editing the entire document. This report will be graded in two stages. First, each team member’s individual contribution will be graded, and this will count 40% of the total course grade. Second, the report as a whole will be graded based on how thoroughly and well-integrated it is. This will count 20% of the total grade.

Remember, it is your responsibility to make sure that your work is received, and it is always advisable for you to make a copy of all of your work before you turn it in.

All written work will be graded on the basis of performance in three areas or categories of equal importance (usually a maximum of 33.3 points each): 1) Writing quality and organization of material; 2) factual accuracy and completeness; and 3) synthesis of ideas and creativity.

The final grade will be an average of the mid-term exam, the written summary of the in-class presentation, the individually-written portion of the final team report, and the overall grade on the team report taken as a whole (all members of the team will receive the same grade on this component). These components of the grade will be weighted as follows:

- Mid-term exam: 20%
- Summary of in-class presentation: 20%
- Portion of final team report: 40%
- Team report as a whole: 20%

CLASS DATES BY TOPICS AND READINGS

Tuesday September 1: Introduction to Water Policy and Management

Tuesday September 8: Water Policy and Management Areas; Water from a Systems Science Perspective; Social-Ecological Systems; Socio-hydrology; Threats to Water Quality and Quantity.
Drinking Water, Wastewater management, produced, reused, and recycled water; surface water; groundwater; oceans and large marine eco-systems; coastal zone and estuary management; floods, flood control, and emergency management; irrigation and agricultural uses. Hydrology and hydrologic cycle basics. Water recharge and storage; Urbanization, climate change, and sea level rise as threats.

Tuesday September 15: Water as a Common Pool Resource; characteristics and implications for policy and management; Alternative Perspectives on Governing the Commons; Water Economics and Policy

Tuesday September 22: U.S. Water Laws and Policies -- The Broad Overview
Tuesday September 29: Water Policymaking and Management Processes
Problem formation, policy formulation and agenda-setting, policy legitimation and adoption, policy implementation, rulemaking, and negotiated regulatory processes, policy evaluation, policy re-formulation. Water policy change frameworks, models, and theories. The core U.S. federal legislation.
Read:
• Punctuated equilibrium

Tuesday October 6: Water Wars I -- Water Policy and Management in the International Context; Integrated Water Resource Management (IWRM)
International Transboundary Water Conflicts; NGOs, the UN, and Global Water Partnership; survey of conflict situations and analysis; Methods of anticipating and avoiding potential conflicts; cross-national water conflicts that arise from threats of violence and coercion; and sub-national conflicts that arise from policy and legal flaws; Integrated Water Resource Management as a policy tool.
Read:
• Chapters 1, 2 and 3 in Jerome Delli Priscoli and Aaron Wolf, eds. Managing and Transforming Water Conflicts. Cambridge University Press, pp. 1-49.

Tuesday October 13: Water Wars II – Water Policy and Management Across and Within U.S. States
Conflict in the Southeast US: The ACF-ACT Case
Read:
  o Chapter 2, Conflict Comes to the Humid East: The Tri-State Water Wars,
  o Chapter 3, Stakeholders and Issues in the ACT and ACF Systems,
  o Chapter 4, The Law, Interstate Compacts, and the Southeastern Water Compact,
  o Chapter 8 Stakeholder Analysis and Social Impacts of Water Reallocation in the ACT and ACF River Systems.


Tuesday October 20: Water Governance I – The Organization and Jurisdictions of Institutions (Mid-term exam today)
Broad overview of the organization and management of public water systems, and how decisions about water are made under different conditions. Comparison of municipal water jurisdiction, regional water authorities, water sheds, aquifers, and ecosystems. Development of new organizations, e.g. flood control districts, to manage water.

Tuesday October 27: Water Governance II – Collaborative and Participatory Approaches to Water Management
How well does collaborative watershed and participatory water management work?
Read:


Tuesday November 3: Water Governance III – The Special Case of Texas
Read:


**Tuesday November 10: Economic Mechanisms and Privatization**

Read:


**Tuesday November 17: Will Technology Save Us? Understanding the Water-Energy-Food Nexus**

Read:


**Tuesday November 24: Emerging Systems of Water Governance**

Mutual Gains Approaches to Water Conflict Resolution; Water Diplomacy

Read:


• The Mutual Gains Approach to Negotiation Found at:

**Tuesday December 1: Student Presentations**

**Statement of Policy on Students with Disabilities**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu. Every effort will be made to accommodate the needs of students with registered disabilities. This includes accommodations expressly outlined within the University’s policies as indicated above and may include others as agreed upon by me and the student.

**Statement of Policy on Attendance and Missed Work**
This class is designed to be a seminar, and requires everyone to engage in discussions. Additionally, each student is required to make a scheduled in-person presentation. Failure to attend class interferes with both of these features of the class. Consistent with University and School policy, class attendance is mandatory. In the case of excused absence, consistent with Student Rule 7 (http://studentrules.tamu.edu/rule07), arrangements will be made for work to be made up in a timely fashion. In general, extensions on assignments and incompletes at final grading time are not granted.

**Statement on Academic Integrity**
"An Aggie does not lie, cheat or steal, or tolerate those who do."
Consistent with University policy (http://aggiehonor.tamu.edu), the expectation in this course is that your work will be your own. The preparation of the final team reports will require some level of collaboration among team members. Under no circumstances should this requirement be understood as an opportunity to take credit for the work of someone else. The section or chapter of the final report that has your name on it must be your work. You are advised to share your work with others on your team, and to incorporate their recommendations and suggestions for revisions into your final product. But the material you submit with your name on it must be substantially your work.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:  [ ] Undergraduate  [ ] Graduate  [ ] First Professional (DO, JD, PhD, DVM)
2. Request submitted by (Department or Program Name):  Select or Type Department/Program Name
3. Course prefix, number and complete title of course:  PSAA 625: Urban Sustainability Policies and Management

4. Catalog course description (not to exceed 50 words):
Studies the relationship between local political processes and the pursuit of sustainable development; focuses on theoretical underpinnings of sustainability and sustainable development as applied in the local city context of the United States and the ways in which these concepts are actually defined through local political and policy making processes.

5. Prerequisite(s):

Cross-listed with:

Stacked with:

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

Master of Public Service and Administration

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

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

13. Briefly describe the intended audience (excluding participants):

<table>
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Approval recommended by:

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

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

Submitted to Coordinating Board by:

Associate Director, Curricular Services  Date  Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services - 07/14
A Dallas, TX, Brownfield Development Project:
Does This Contribute to Creating a Sustainable City?

Jefferson North End during redevelopment

Austin Energy’s Wind Turbine Farm in West Texas:
Is the Development of Renewable Energy Sources the Way for Sustainable Cities to go?

A Green Roof in Atlanta

An electric bus manufactured and used in Chattanooga, TN
PSAA 689-601
Urban Sustainability Policies and Management
Spring Term, 2015
Mondays, 9:35 AM - 12:15 PM
1041 Allen Building

Instructor: Kent E. Portney
Phone: 458-8031
Email: kportney@tamu.edu

Office: 1118 Allen Building
Office Hours: MW 1:30-3:00 or by appointment

Course Description and Objectives:

This is an advanced research seminar that is dedicated to the study of the relationship between local political processes and the pursuit of sustainable development. It focuses on the theoretical underpinnings of the concepts of sustainability and sustainable development as applied in the local city context of the United States. It examines the ways that these concepts actually get defined through local political and policy making processes. Readings and class discussions are designed to interweave several themes, including the obvious tension between maximizing economic growth and protecting the environment, local politics and policy decision making in the context of the U.S. federal system, and the practice of planning for the environment.

This is referred to as a research seminar because students will engage in conducting original research as a capstone experience. After addressing various conceptions of sustainability and sustainability policies, as well as important issues of research design and hypothesis testing, the class will embark on a research project designed to examine a central hypothesis to be defined by the class. Each student will be required to prepare a final research paper. Details on the content of this paper will be presented in class.

As a seminar, the class meets once a week for two and a half hours. One of the defining characteristics of a seminar is that it involves extensive in-class discussion. So there is an expectation that each student will take responsibility for doing the assigned readings and for being prepared to discuss them in class. Another characteristic of a seminar is that it typically involves the preparation of a substantial term paper. For this class, students will prepare their term papers based on topics and hypotheses developed over the course of the semester. The term paper will be described in more detail later.

Prerequisite: Graduate Classification.

Required Readings: Books

Because a substantial amount of the reading can be found in three books, they should be considered “required.” Essentially we will be reading all three of these books cover-to-cover during the semester. You should feel free to purchase these books from whatever source you wish, including Amazon.com. Other books are listed on the syllabus, but should be considered
optional and supplemental. All required readings on the syllabus are designated with bold face type.


Optional and Supplemental (recommended but not required):


Additional readings will be made available as photocopies distributed in class, as pdf files sent via email, or on-line through the course’s web site.

Required Readings: Articles

Some of the required readings will come in the form of journal articles or book chapters. These readings, designated in bold face on the syllabus, will be made available to you though one of several sources: pdf files distributed to you via email or accessible on the class Trunk web site; online readings accessible directly from the various journals; rarely, on paper handed out in class. The syllabus contains active links to many of these readings, although you may need to access them through an A&M IP address computer (through, for example, the A&M Library web site). If for any reason you cannot access a required reading please email Professor Portney ASAP and he will make the reading accessible.
Assigned Readings:

Each class meeting will have a student presentation summarizing a designated reading. Assignments will be made at the end of each class meeting for the next subsequent class. It is your responsibility to make sure you are prepared when a reading has been assigned to you. The presentation should succinctly do the following: 1) present the issue or problem that the reading addresses; 2) explain the approach or methods used to try to address the issue; and 3) the conclusions. Feel free to prepare any materials to support your presentation. If you elect to prepare an electronic presentation, make it short.

The Research Challenge:

This course is both a seminar and a methodologically-focused research class. Therefore, a good portion of what we do in the class will be dedicated to learning about and conducting research on sustainable cities in the U.S. or cross-nationally. The primary issue of interest in this course will be the relationship between local governance and politics, on one hand, and the pursuit of sustainability on the other. In short, we would like to know whether there is any relationship between the ways cities are governed and whether (and to what extent) they decide to try to become more sustainable. Much of the time we spend in class will be dedicated to understanding what local sustainability is, what cities can and actually do to try to become more sustainable, and how cities are governed. The exact hypotheses we will focus on will evolve over the course of the semester. The methodological portions of the course will tend to focus more on issues of research design and less on methods of statistical analysis. There is one foundational reading related to the research challenge, the Hoover and Donovan book listed above. Thus is required reading, and frequent reference will be made to it throughout the course. You should get a copy of any edition and read it cover-to-cover as soon as possible.

The research component of the course will be defined during class time. We will create four or five three or four person teams to focus on particular research areas or problems. One team might focus on climate mitigation policies, another on sustainable economic development, still another on sustainable food systems, etc. We will define these topic areas in a way that matches the specific interests of the students in the class. Each member of the team will be responsible for researching and preparing a piece of a larger "report" to be presented by the full team. The exact division of labor will be determined on a project-specific basis, but will be made clear to everyone as early in the semester as possible. An initial set of tasks will focus on describing a policy in a specific place, e.g. Boston, or Somerville, or another city. This will provide the primary content for the midterm assignment, mentioned below. After midterm time, our attention will focus on broadening the project to look at more cities, with the central task of examining a specific hypothesis or set of hypotheses concerning why some cities are more aggressive in their policies than others. These hypotheses will evolve over the course of the semester. The final term paper will incorporate material from the midterm assignment, and will present a full examination of the selected hypothesis.
Grading:

The final grade for the course will be based on the average of the grade on the take-home midterm assignment and the final research paper. There will be no other graded assignments. The grading of these papers will be based on assessment of three categories: 1) writing and organization; 2) factual accuracy and completeness; and 3) idea synthesis and creativity. Writing and organization includes all the mechanics of writing, spelling, word usage, and diction, and also includes the effectiveness of the logical presentation of the paper. In other words, is the argument in the paper presented in a logical way? Factual accuracy and completeness focuses on whether the statements made can be said to be correct, and whether there is directly relevant information that was omitted. Idea synthesis and creativity focuses on the extent to which the paper develops some fresh ideas or approaches the argument from a novel or unique perspective. Each of these categories can earn up to 33.3 points, and the sum of the three categories points will be used to determine the final grade. The grading scale will be as follows:

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

The midterm assignment will be due in class on March 4. The final term paper will be due on Friday, May 1, by noon. No extensions will be granted and no grades of Incomplete can be issued without prior arrangement. Failure to turn in a final term paper will not automatically result in a grade of Incomplete.

Class Attendance:

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

Americans with Disabilities Act:

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

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

Students are expected to adhere to standards of academic integrity. Scholastic dishonesty consists of lying, cheating or stealing academic information with intent to gain academic advantage. Academic dishonesty comes in a variety of forms. The most common forms are plagiarism, cheating, and academic misconduct. Students who participate in any of these activities will be subject to appropriate University disciplinary action. Students are expected to review, utilize and adhere to the University’s Honor Council Rules and Procedures, which are posted on the University’s web site at http://aggiehonor.tamu.edu. This website provides detailed information and clarification policies, procedures, and rights and responsibilities related to academic integrity.

Plagiarism
The attention of each student is directed to the requirement to avoid plagiarism or the appearance of plagiarism through sloppy citation. As commonly defined, academic dishonesty/plagiarism consists of passing off as one's own 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 have the permission of the person. It does not matter from where the material is borrowed—a book, an article, material off the web, another student's paper—all constitute plagiarism unless the source of the work is fully identified and credited. It is important when using a phrase, a distinct idea, concept, a sentence, or sentences from another source to credit explicitly that source either in the text, a footnote or endnote. Plagiarism is a violation of academic and personal integrity and carries extremely serious consequences. Scholastic dishonesty (including cheating and plagiarism) will not be tolerated and will be punished in accordance with Texas A&M University Student Rules. If you have any questions, please consult the course instructor.

Attendance and Make-up Assignment Policy:

The policy for attendance and making up missed assignments is consistent with Texas A&M University Student Rule 7: https://student-rules.tamu.edu/rule07).
Syllabus Meeting Numbers and Associated Meeting Dates:

**Fourteen Wednesday Meeting Dates, Spring 2015**

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Friday, May 1, at 12 noon Final Papers are due

Please note: There is no class on Wednesday, March 18 (spring break)
Class Meeting 1: An Introduction to the Concepts of Sustainable Cities and Sustainable Communities; The Conceptual Framework for Analyzing Sustainability in Cities; An Introduction to the Research Endeavor

Today we will begin discussing the broad concept of sustainability, and how it is thought to apply to communities and cities. We will develop an introduction to the course, along with an explanation of the "logic" of the syllabus and its topics. We will begin a discussion of conducting research on or about sustainable cities with special emphasis on "analytical" rather than "descriptive" research.

Read:


Class Meeting 2: The General Concepts of Sustainability, Sustainable Development, and Sustainable Communities and Cities

Today we will devote our time to discussing readings on the concept of sustainability and sustainable development. Most of these readings will be fairly general, consisting of broad conceptual works that set the stage for more concrete and better-defined concepts that will be of use to us in our effort to apply the concept to local areas, and in our task of operationalizing sustainability. We will also discuss efforts to apply the broader concepts to small geographic areas, especially cities.

Read:


Herman E. Daly and John B. Cobb, Jr., 1994. For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future. Beacon Press.


Classes 3 through 6
The Major Elements of Local Sustainability Policies and Programs:
Environmental, Economic, and Social

Class Meeting 3: Sustainable Cities, the Biophysical Environment,
Ecosystem Health, and Pollution Prevention

Today we will focus on what some people would argue is the key element to sustainable cities: the environment and eco-system health. We will look at the wide array of environmental issues that sustainability addresses, and the relationship between what goes on in cities and the quality of the environment and related eco-systems. We will develop a number of different ways of looking at the city’s environment and eco-systems, including “ecological footprints,” environmental bubbles, and “closed loops,” to name a few.


Read:


Class Meeting 4: Sustainable Cities, Climate Change Mitigation and Adaptation, Energy, Water, and Transportation

Today we will discuss the central issue of climate change as an element of sustainability, and the role of energy conservation, transportation planning, and related issues, such as “green building” programs. Energy and transportation play important roles in initiatives that seem to take sustainability seriously. Today’s topics will focus on how these issues manifest themselves in the operations of sustainable cities in the U.S.

Read:


**Class Meeting 5: Sustainable Cities and Economic Development – Land Use, Zoning, Smart Growth, Regional Growth Management, and the Role of Comprehensive Planning**

Today we will examine the ways that sustainable communities do (or do not) engage in economic development activities. We will look at the conceptual tension between economic development and sustainability. We will address the question of whether any amount of economic growth is necessarily bad for the environment. Then we will look at various ways that cities have tried to engage in economic development or to pursue economic growth without complete disregard for the environment. So we will look at the general issue of “smart growth” approaches to development, and some of debates concerning the issue of urban sprawl.

Read:


**Class Meeting 6: Sustainable Cities and the Critical Importance of Environmental and Social Justice**

Today we will look at the argument that a sustainable city is necessarily a more socially just city. We will examine the general issue of environmental justice and social justice in urban settings, and compare and contrast these with the concepts of sustainability and sustainable communities.

Read:


Classes 7 through 10
Major Explanations for Why Some Cities Do More than Others

Class Meeting 7: Mainstream Views of the City Governance: Politics (and Economics) as Usual; Economic and Financial Causes of Local (Un)Sustainability; The Environmental Kuznets Curve; “Vulnerability” and “Capacity”

Before we begin to develop a deeper understanding of the idea of sustainable communities and cities, we will take a look at what might be called “mainstream views” of city politics and economics; the relationship between economic growth and environmental quality; and the relationship of city politics to local economies. This is done so that we can contrast these mainstream views with the alternative conceptions of cities that tend to be associated with sustainability.

Read:


Class Meeting 8: Social and Demographic Influences on Local Sustainability -- Education, Postmaterialism, “Social Culture,” the “Creative Class,” “The Consumer City” and the Pursuit of “Amenities”

Today we will look at several related specific explanations for why some cities seem to do more to advance the cause of local sustainability than others. Broadly, these “social and demographic” influences focus on education and postmaterial values, and the attraction of urban amenities as the possible primary forces behind city decisions to pursue sustainability policies and programs.

Read:


Class Meeting 9: Governance and Sustainability – Urban Governance Regimes

Today we will look at the concept of “urban governance regimes” -- what they are, what their components are, how cities differ – and what differences in governance regime types might imply for the kinds of local policies and programs that get adopted and implemented.

Read:


Rick Feiolk, Kent Portney, Jungah Bae, and Jeffrey Berry. “Governing Local Sustainability: Agency Venues and Business Group Access,” in Urban Affairs Review. This paper became available in online first November 2103.


Class Meeting 10: Democracy, Urban Governance, and Sustainability – The Role of Nonprofits (NGOs), Public Participation, and Civic Engagement

Today we will revisit the issues of city politics and economics as usual, and we will examine the ways in which these conspire to act as impediments to achieving progress on sustainability at the local level. We will look specifically at the role of aspects of “civil society” in helping to shape the pursuit of sustainability. We will also at whether these aspects of civil society offer realistic prescriptions for overcoming these impediments, particularly at ways in which the sustainable communities process can be integrated with economic development types of activities.

Read:


**Classes 11 through 14**

*Implementation and Management of City Sustainability Policies and Programs*
Class Meeting 11: Implementing Local Sustainability Policies and Programs: Measurement and Sustainable Indicators Issues; The Natural Step; Triple Bottom Line; Adaptive Management; Citistat Approaches.

Today we will look at a variety of issues related to how sustainability policies and programs are implemented. For the most part, this focuses our attention on the dynamics of management internal to municipal government, with special emphasis on systems and approaches that have been developed in specific cities around the U.S. and Europe.

Read:


Ellen Perlman, 2008, “Mr. Sustainability,” in Governing, April. Available at: http://www.governing.com/articles/0804sustain.htm


Class Meeting 12-14: Some Case Studies of Sustainable Cities –
Seattle, Portland, Chattanooga, Boulder, San Francisco, Austin,
Jacksonville, and Toronto; Student Presentations; Semester Summary.

Today we will look at three specific examples and case studies of sustainable cities projects
around the country, as described in the literature. We will take a critical look at what seem to be
the underlying motivations for embarking on a sustainability effort, and we will try to understand
some of the locality-specific pre-conditions that contribute to such an effort. We will also
entertain the question of whether the sustainable cities process has been able to change aspects of
local economics, business, politics, and the environment. We will focus on three cities that are
considered by many to be among the best examples of what cities can do – Seattle, Portland, and
Chattanooga serve as the case examples. We will also have one or two presentations from fellow students based on their respective final papers; there will also be a semester summary.

Read:


Steven Reed Johnson, *The Ark of Sustainability: The Shape of Portland’s Sustainability Infrastructure at the Turn of the Century.* Unpublished manuscript.


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

Form Instructions:
1. Course request type:
   [ ] Undergraduate  [ ] Graduate  [ ] First Professional

2. Request submitted by (Department or Program Name):
   Department of Health and Kinesiology
   SPMT 630 - Economic Issues in Sport

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

4. Catalog course description (not to exceed 50 words):
   This course focuses on the economics of North American professional sport. Topics include supply and demand, the market for broadcast rights, league structure, market power, revenue redistribution mechanisms and the market for playing talent.

5. Prerequisite(s):
   Graduate standing

   Cross-listed with:  Stacked with:

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

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

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

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

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

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

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

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

   M.S. in Sport Management

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

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

13. Prefix  Course #  Title (excluding punctuation)
   SPMT  630  Economic Issues in Sport

   Lect.  Lab  Other  SCH  CIP and Fund Code  Admin. Unit  Acad. Year  HCE Code
   3.00  0.00  0.00  3.00

   Approval recommended by:

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

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

   Submitted to Coordinating Board by:

   Associate Director, Curricular Services  Date
   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
SPMT 630 – Economic Issues in Sport
Texas A&M University
Department of Health and Kinesiology | Division of Sport Management
Course Syllabus – Fall 2015 (online)

Instructor: Steve Salaga, Ph.D.
Division of Sport Management
Department of Health and Kinesiology
College Of Education and Human Development
Texas A&M University

Office: Blocker 342BB
Office Hours: Tuesday & Thursday 2:15PM to 3:45PM
Telephone: 979-845-1088
Email: salaga@hkkn.tamu.edu

Course Description:
This course focuses on the economics of North American professional sport. Topics include supply and demand, the market for broadcast rights, league structure, market power, revenue redistribution mechanisms and the market for playing talent.

Prerequisites: None

Required Textbook:

Course Purpose and Learning Objectives:
The primary purpose of the course is to provide the student with a detailed understanding of the unique economic structure of North America professional sports leagues.

After completing this course you will be able to:
- Explain the essential principles of economics as they relate to professional sport in North America
- Assess the unique organization of professional sports leagues and the resulting economic outcomes
- Explain the value of playing talent to professional franchises
- Identify and describe the relationships that exist between professional sports franchises and governments

Accessing the Course: http://ecampus.tamu.edu
This is a fully online course. This means that all teaching and learning activities, including learning modules, quizzes, exams, and communication with your instructor take place in a Web-based environment. Please read the "eCampus Technical Information" provided to you in the "Start Here" area on the course site.

Institutional, Department, Division, & Course Policies and Expectations:
1. Make up exams/quizzes are only provided under very special circumstances. A student may be given a make-up exam/quiz only when he/she notifies the instructor prior to the exam date. Make-up exams will only be given for documented medical emergencies, the death of an immediate family member or for university sponsored events. For university sponsored events notification must occur at least one month prior to the exam. Make up exams for documented medical emergencies require a signed medical excuse from a board certified physician. Make up exams must be taken within a time frame defined by the instructor. Make up exams will be given under no other circumstances. I do not regard previous purchased tickets for travel, plans to be in someone's wedding or plans to travel without first looking at the exam schedule as valid reasons to miss an exam. You should email me as soon as possible if a valid reason for an exam absence arises.

2. All students are required to read, understand and to adhere to all Texas A&M University Academic Student Rules, found at http://student-rules.tamu.edu/academicrules. Of particular note is student rule #7, found at:
http://student-rules.tamu.edu/rule07. Attendance is mandatory and an individual student responsibility. Make-up work is only allowed according to university policy. Please make yourself aware of all rules/policies.

3. Email correspondence is the preferred method of contact for this course. Please email me at salega@hkn.tamu.edu should you have any questions concerning the class. You must email me from your TAMU email address in order for me to respond to you regarding any class material or questions. This is a requirement in order to comply with the Federal Family Educational Rights and Privacy Act (FERPA) regulations from the U.S. Department of Education. Accordingly, the public posting of grades either by student name, institutional student number or social security number without the student’s written permission is a violation of FERPA. Further, student grades may not be forwarded via e-mail (even in response to the student’s request).

4. **Academic Honesty** – Texas A&M University and the Division of Sport Management mandate the highest standards of academic conduct and will not tolerate any form of academic dishonesty or plagiarism. Due to the importance placed on academic integrity, any student believed to be in violation of the Texas A&M Aggie Honor System will be immediately reported to the Division Chair. Non-familiarity with academic rules is not an excuse. Honor system guidelines can be found at: http://aggiehonor.tamu.edu/RulesAndProcedures/HonorSystemRules.aspx

The penalties for academic dishonesty or plagiarism are at the instructor’s discretion. Penalties range from receiving an “F” in the course to a student’s suspension or expulsion from the university.

5. **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: http://aggiehonor.tamu.edu/. 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.”

6. **TAMU Netiquette Policy:** http://lts.tamu.edu/Distance_Education/Netiquette_Aggie_Honor_Code.php

7. **ADA Accommodations:**

   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. Additional information is available at http://disability.tamu.edu.

8. Please see the TAMU Academic Calendar at http://registrar.tamu.edu/general/calendar.aspx and the Registrar’s Office at http://registrar.tamu.edu/ for dates and regulations associated with course withdrawal and course add/drop deadlines and fees.

9. **COPYRIGHT STATEMENT:**

   The materials used in this course are copyrighted. These materials include, but are not limited to, the syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.
Course Assessment Format

<table>
<thead>
<tr>
<th>Assessment Item</th>
<th>Points</th>
<th>Your Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes (10 total)</td>
<td>40 each</td>
<td></td>
</tr>
<tr>
<td>Discussion Board Participation/Introduction</td>
<td>40 total</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>440 Pts. Possible</td>
<td>________ of 440</td>
</tr>
</tbody>
</table>

Grading Structure

<table>
<thead>
<tr>
<th>Grade</th>
<th>% of Total Points</th>
<th>Point Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 to 100%</td>
<td>396 to 440</td>
</tr>
<tr>
<td>B</td>
<td>80 to 89.99%</td>
<td>352 to 395</td>
</tr>
<tr>
<td>C</td>
<td>70 to 79.99%</td>
<td>308 to 351</td>
</tr>
<tr>
<td>D</td>
<td>60 to 69.99%</td>
<td>264 to 307</td>
</tr>
<tr>
<td>F</td>
<td>Below 60%</td>
<td>263 and below</td>
</tr>
</tbody>
</table>

**Quizzes**
- Quizzes will be comprised of multiple choice questions (approximately 20 questions per quiz) and are to be completed directly on eCampus.
- Questions are based on topics covered in textbook readings, online video lectures, required course readings and supplementary course materials (links posted on eCampus).
- These assessments are geared to evaluate how well you understand and can apply the concepts covered in the course.
- Quizzes are timed and are to be completed within the specified time frame (30 minutes). No additional time will be given.
- Quizzes will be posted on eCampus during the specified time frame (see the schedule below). If a quiz is not completed by the time specified, there will be no opportunity to retake it. Failure to complete a quiz will result in a score of 0.
- Only enter the link to take a quiz when you are ready. You will have only one opportunity to take each quiz. Once the link to start the quiz is opened, your time to complete it will begin to elapse.

**Discussion Boards**
- Discussion boards are included primarily for students to be able to interact with each other throughout the course of the semester. The discussion boards can be accessed by clicking on the "Discussions" tab on the left hand side of the course homepage. You are required to complete a discussion board introduction. This is located under "Discussions → Introductions." You are required to introduce yourself, tell us about your background, interests, why you are taking this course and any other interesting/pertinent information about yourself. **This must be completed no later than Monday, September 7** at midnight.
- There will also be discussion board forums for each chapter and for the supplementary web readings. Use these discussion boards to ask each other questions and assist other classmates regarding course material, concepts and readings. You will be graded on your participation in the discussion boards. Activity in the discussion board associated with each section is required in order to receive full credit for this assessment. I highly encourage all students to use the discussion boards as a way to communicate and assist each other with course content as the inability to personally interact with classmates is largely eliminated in the online course setting.
- Please note that discussion board commenting is not allowed during the ten quiz periods (see schedule below).
- If you are new to eCampus Discussions, please review the following tutorial from Helpdesk Central: [http://hdc.tamu.edu/Academics/eCampus/Using_Discussion_Tool_in_eCampus.php](http://hdc.tamu.edu/Academics/eCampus/Using_Discussion_Tool_in_eCampus.php)
Course Schedule

Students are free to cover the course content at their own pace. However, quizzes and assignments must be completed by the timeframes specified.

<table>
<thead>
<tr>
<th>Section</th>
<th>Dates</th>
<th>Content</th>
<th>Read</th>
<th>Assessment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Aug 31-Sept 6</td>
<td>Warm Up: The Business of Sports</td>
<td>Ch. 1</td>
<td>Quiz 1: Complete by Sept 6 (midnight)</td>
</tr>
<tr>
<td>2</td>
<td>Sept 7-Sept 13</td>
<td>Demand &amp; Sports Revenues: Part 1</td>
<td>Ch. 2</td>
<td>Quiz 2: Complete by Sept 13 (midnight)</td>
</tr>
<tr>
<td>3</td>
<td>Sept 14-Sept 27</td>
<td>Demand &amp; Sports Revenues: Part 2</td>
<td>Ch. 2</td>
<td>Quiz 3: Complete by Sept 27 (midnight)</td>
</tr>
<tr>
<td>Module 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sept 28-Oct 4</td>
<td>The Market for Sports Broadcast Rights</td>
<td>Ch. 3</td>
<td>Quiz 4: Complete by Oct 4 (midnight)</td>
</tr>
<tr>
<td>5</td>
<td>Oct 5-Oct 11</td>
<td>Team Costs, Profit &amp; Winning: Part 1</td>
<td>Ch. 4</td>
<td>Quiz 5: Complete by Oct 11 (midnight)</td>
</tr>
<tr>
<td>6</td>
<td>Oct 12-Oct 25</td>
<td>Team Costs, Profit &amp; Winning: Part 2</td>
<td>Ch. 4</td>
<td>Quiz 6: Complete by Oct 25 (midnight)</td>
</tr>
<tr>
<td>Module 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Oct 26-Nov 1</td>
<td>League Structure &amp; Market Power</td>
<td>Ch. 5</td>
<td>Quiz 7: Complete by Nov 1 (midnight)</td>
</tr>
<tr>
<td>8</td>
<td>Nov 2-Nov 15</td>
<td>Franchise Relocation, Expansion &amp; Rival Leagues</td>
<td>Ch. 5</td>
<td>Quiz 8: Complete by Nov 15 (midnight)</td>
</tr>
<tr>
<td>Module 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Nov 16-Nov 22</td>
<td>Competitive Balance</td>
<td>Ch. 6</td>
<td>Quiz 9: Complete by Nov 22 (midnight)</td>
</tr>
<tr>
<td>10</td>
<td>Nov 23-Dec 6</td>
<td>Revenue Sharing, Luxury Taxes &amp; Salary Caps</td>
<td>Ch. 6+</td>
<td>Quiz 10: Complete by Dec 6 (midnight)</td>
</tr>
</tbody>
</table>

**The course schedule may be altered at the discretion of the instructor. Advance notice will be given.**

*Discussion Board Introduction: Due by June 5 (by midnight)*

**Quiz Schedules on eCampus**
- There are ten quizzes in this course. You will have 30 minutes to complete each quiz. You will be able to complete each quiz only during the specified "quiz period," which is described in the next bullet point. Make sure to remember that you are only able to enter and complete a quiz one time. So only enter the quiz link when you are ready to complete it in its entirety.
- This course requires a quiz to be completed at the end of each section. Sections (contained within modules) are either one or two weeks long. The eCampus link to take your quiz will open on Thursday (8:00 AM CT) of each quiz period and will remain open until Sunday (11:59 PM CT) of each quiz period.

**Required Readings in the Textbook**
- The required textbook reading list is provided under the "Content" tab on the left-hand side of the course homepage. Textbook readings are vital in your understanding of the material. Video lectures are intended to supplement the broader material covered in your textbook. Please read the required textbook readings in full. Questions from the textbook readings will be included in each quiz.

**Required Supplementary Readings**
- A required supplementary reading list is provided under the "Content" tab on the left-hand side of the course homepage. Supplementary readings are required and are intended to reinforce the material covered in the required textbook readings and in the video lecture. Please read the supplementary readings in full. Questions from these supplementary readings will be included in each quiz.
Texas A&M University
Departmental Request for a New Course
Undergraduate ✐ Graduate ✐ Professional
Submit original form and attach a course syllabus.

Form Instructions
1. Course request type:
   ☐ Undergraduate ✐ Graduate ✐ First Professional (MD, JD, PhD, DVM)

2. Request submitted by (Department or Program Name):
   Department of Landscape Architecture and Urban Planning

3. Course prefix, number and complete title of course:
   URSC 801 Foundations of Research in Urban and Regional Science

4. Catalog course description (not to exceed 50 words):
   Introduction to the research process and its application to problems in urban, planning, and regional science;
   presentation of philosophy and logic underlying the scientific method; critical analysis of planning and design literature
   according to each step of the research process; problem definition, hypothesis development, study design, analysis
   and interpretation of the findings.

5. Prerequisite(s):
   Cross-listed with:
   Stacked with:

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

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

8. Will this course be repeated within the same semester? ☐ Yes ✐ No

9. Will this course be submitted to the Core Curriculum Council? ☐ Yes ✐ No

10. How will this course be graded? ☐ Grade ✐ S/U ✐ PF (PASS)

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

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

13. Prerequisite Course Code

<table>
<thead>
<tr>
<th>URSC</th>
<th>RESEARCH-FOUNDATIONS</th>
<th>RESEARCH URS C</th>
</tr>
</thead>
<tbody>
<tr>
<td>801</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   Approval recommended by:
   Ming-Han Li
   Date: 10/13/15
   Department Head or Program Chair (Type Name & Sign)

   Chair, College Review Committee
   Date: 10/13/15
   Dean of College
   Date: 10/13/15

   Submitted to Coordinating Board by:
   Chair, URSC
   Date: 11/5/15

   Associate Director, Curricular Services
   Date: 11/5/15

Questions regarding this form should be directed to Sandra Williams at 845 8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Dr. Shannon Van Zandt, AICP
Office: Scoates 120
E-mail: svanzandt@tamu.edu
Office phone: 458-1223
Office hours: TBD, or by appointment

Course Description: Introduction to the research process and its application to problems in urban, planning, and regional science; presentation of philosophy and logic underlying the scientific method; critical analysis of planning and design literature according to each step of the research process: problem definition, hypothesis development, study design, analysis and interpretation of the findings.

Course Objectives:

- Learn how to connect research design to social problems and prescriptions
- Understand strength and weaknesses of predominant research designs used in social sciences
- Critically assess prominent designs used in planning, social science, and applied policy research
- Understand data collection and analysis methods associated with a given research design
- Understand research ethics, particularly those related to the use of human subjects

Upon completion of the course, students will be able to:

- Conduct a literature review
- Write a proposal for external funding
- Critically review a journal manuscript
- Properly structure an academic manuscript
- Properly prepare for a standard conference presentation
- Develop good research and writing habits

Required Texts:


NOTE: These are not the most current editions, but they are fine. Much cheaper. Buy used.

**Recommended (especially for PhD students):**


**CLASS STRUCTURE**

This class uses a “flipped” structure. That means that rather than the professor lecturing in class, she will record her lectures ahead of time, and you will watch them prior to class meetings, along with completing class readings, and writing assignments for each session. This will allow each class session to focus on reviewing, critiquing, and improving student writing and work. This approach demands that students prepare ahead of time, and come to class prepared to engage with the material.

Please also be aware that your work will be shared with the class. *Grades will not*. But since peer review is a hallmark of academic work, we will use this method in class to build your skills at reviewing and improving both your own work and that of others. It will also teach you to always be constructive in your criticism of others' work, and to always put your own best work forward.

When written work will be discussed in class, you should upload your written work to the e-campus site designated. This will allow me to access the files during class. You should also bring your laptops to class so that you can access yours and others' work. If you cannot bring a laptop, you should bring a hard copy of your own work.

**GRADING**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Review (due Sep 29)</td>
<td>20%</td>
</tr>
<tr>
<td>Manuscript Reviews (three reviews due by Nov 17)</td>
<td>3@10%</td>
</tr>
<tr>
<td>Proposal (Final due Dec 8; preliminary should be complete by Dec 1)</td>
<td>20%</td>
</tr>
<tr>
<td>Final Presentation (presented in class, Dec 1, 3 and 8)</td>
<td>10%</td>
</tr>
<tr>
<td>Weekly progress (having work ready to critique in class)</td>
<td>10%</td>
</tr>
<tr>
<td>Class participation (actively and constructively critiquing others' work)</td>
<td>10%</td>
</tr>
</tbody>
</table>
COURSE OUTLINE

PART I. DEVELOPING A PROJECT

WEEK 1, Sep 1 and 3

Topic: What is research?

Reading: Leedy, Chapter 1, the nature and tools of research

Assignment: Draft a max 300-word statement of research interests and a list of 5 journals in your area of interest, upload to e-campus prior to September 3rd class session.

WEEKS 2, 3, 4, Sep 8 -24 (Shannon out September 8)

Topic: Conducting a literature review

- Identifying high quality sources
- Attribution
- Synthesis
- Software for bibliographies
- Identifying a gap and justifying a need

Reading: Leedy, Chapter 3 Review of Related Literature

Complete Academic Integrity tutorial at http://library.tamu.edu/help/help-yourself/using-materials-services/online-tutorials/academic-integrity/

Other readings as posted on e-campus

Assignments: Identify 5 journal articles, bring in for critique, complete weekly tasks (see e-campus); Literature review, due Sep 29.

WEEK 5, Sep 29 and Oct 1

Topic: Responding to an RFP, Writing a research question

Reading: Leedy, Chapter 2, The Problem, Chapter 4, Planning your research project
Assignments: Bring in an RFP from a major funder in your area of interest; draft justification and problem part of proposal

PART II. ANSWERING THE QUESTIONS: QUANTITATIVE AND QUALITATIVE RESEARCH DESIGNS

WEEK 6, Oct 6 and 8

Topics: Exploratory, descriptive, explanatory. What is appropriate for a dissertation?

Quantitative, Qualitative, mixed methods

Reading: Leedy, Chapters 6 Qualitative, 8 Descriptive, 10 Mixed Methods

Assignments: Assess the method type in each of your 5 journal articles

WEEK 7, Oct 13 and 15

Topics: Conceptual models/framing research/model building

Measurement

Reading: Leedy, Chapter 11, Strategies, other as assigned on e-campus; Shadish Chapter 1 Causal Inference

Assignment: Develop a conceptual model for your research proposal

WEEK 8, Oct 20 and 22 (Shannon and URSC students out Oct 22)

Topics: Validity, reliability, generalizability (threats to)

Reading: Shadish Chapters 2 and 3 Validity

Assignment: Critique each article for threats to validity, reliability, and generalizability. Identify threats within your own research design.
WEEKS 9-11, Oct 27-Nov 12 (Shannon out Nov 5)

Topic: Causal inference/Quasi-experimental designs

Reading: Shadish, Chapters 4 and 5, others as necessary

Assignment: Critique each article with regard to its research design. Develop your own research design.

PART III. RESEARCH ETHICS

WEEK 12, Nov 17 and 19

Topic: IRB/Human Subjects

Reading: Complete CITI Training on Human Subjects (approximately 2 hours) at http://rcb.tamu.edu/humansubjects/training

WEEK 13, Nov 24 (Nov 26 is Thanksgiving Holiday)

Topics: Knowledge Attribution
         Peer Review

Reading: See e-campus

WEEKS 14-15, Dec 1-8

Research Presentations

Students present their research proposals
Attendance
If you cannot attend class for any reason please let the professor know ahead of time if at all possible. If an absence is excused, the instructor will either provide the student an opportunity to make up any quiz, exam or other work that contributes to the final grade or provide a satisfactory alternative by a date agreed upon by the student and instructor. If the instructor has a regularly scheduled make up exam, students are expected to attend unless they have a university approved excuse. The make-up work must be completed in a timeframe not to exceed 30 calendar days from the last day of the initial absence. The student is responsible for providing satisfactory evidence to the instructor to substantiate the reason for the absence. Among the reasons absences are considered excused by the university are the following (see Student Rule 7 for details http://student-rules.tamu.edu/rule07/). The fact that these are university excused absences does not relieve the student of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence. Falsification of documentation is a violation of the Honor Code.

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

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http://aggiehonor.tamu.edu
Texas A&M University
Departmental Request for a New Course
Undergraduate + Graduate + Professional
* Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: □ Undergraduate □ Graduate □ First Professional (D.D.S., M.D., Ph.D., D.P.M.)
2. Request submitted by (Department or Program Name): Department of Landscape Architecture and Urban Planning
3. Course prefix, number and complete title of course: URSC 602 Research Methods in Urban and Regional Science
4. Catalog course description (not to exceed 50 words):
   Basic empirical research methods used in urban, planning, and regional science research; experimental, survey and case study designs; comparisons of various methods; application of techniques in sample selection, data collection and analytical approaches.

5. Prerequisite(s):
   URSC 641 or STAT 851 or approval of instructor

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

7. Is this a repeatable course? □ Yes □ No
   If yes, this course may be taken 3 times.
   Will this course be repeated within the same semester? □ Yes □ No

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

9. How will this course be graded? □ Grade □ P/F (CLIPI)

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

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

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

Submitted to Coordinating Board by:

Associate Director: Curricular Services

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services - 07/16

[Stamp: RECEIVED OCT 16 2015]
URSC 602 Research Methods in Urban and Regional Science
Spring 2016 Semester
Department of Landscape Architecture and Urban Planning

Yu Xiau, Ph.D. Associate Professor
Email: YUXIAO@TAMU.EDU
Phone: 979-458-2731
http://ecampus.tamu.edu/
Office Hours T/H 1:30 pm to 2:20 pm

Class Schedule
TU and TH 2:20 pm to 3:35 pm
Langford Architecture 209B

Course Description
Basic empirical research methods used in planning and design research: experimental, survey and case study designs; comparisons of the various methods; application of techniques in sample selection, data collection and analytic approaches.

Prerequisites: URSC 641 or STAT 651 or approval of instructor

Learning Outcomes
Students will learn the basics of

- Conducting empirical research to support planning and design decisions.
- Conducting survey research, including survey design, sampling, survey management, survey implementation, and coding and codification of resulting data
- The advantages and disadvantages of various survey techniques
- About causal inference from quasi-experimental designs
- The value of randomization in sampling and research design
- Ethics in conduction human subject based research

Required Reading
Course Overview

I. Survey Research Methods
II. Experimental and Quasi-Experimental Designs
III. Outcome Measurement
IV. Human Participant Protections Education for Research

Weekly Reading Assignments: Weeks 1-11


1. Chapters 1-2. Turbulent Times for Survey Methodology; The Tailored Design Method  
2. Chapter 4. The Basics of Crafting Good Questions  
4. Chapter 6. From Questions to a Questionnaire  
5. Chapter 3. Coverage and Sampling  
6. Chapter 7. Implementation Procedures  
7. Chapter 8. When More than One Survey Mode is Needed  
8. Chapter 9. Longitudinal and Internet Panel Surveys  
10. Chapter 11. Effects of Sponsorship and the Data Collection Organization  
11. Chapters 12-13. Surveying Businesses and Other Establishments; Coping with Uncertainty

Weekly Reading Assignments: Weeks 12+


12. Chapter 1. Experiments and Generalized Causal Inference  
13. Chapters 4-5. Quasi-Experimental Designs  

Grade Percentage

Course grade will use the grading scale A= 90 to 100, B=80 to 89, C= 70 to 79, D= 60 to 69, F=Below 60
Students will be awarded points as follows (Up to):

- 50 pts for Research Proposal Paper: 5-6000 words
- 20 pts for Class PowerPoint Presentation on Research Proposal
- 20 pts for Survey Manuscript Review: 5 pages (two 21/2 page reports)•
- 10 pts for Completion of Human Participation Protections Education for Research http://researchcompliance.tamu.edu/irb

Attendance

Students are expected to be in class except during University excused absences. See rule 7 at http://student-rules.tamu.edu/rule07

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Academic Integrity Syllabus Statement

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See http://student-rules.tamu.edu/aggiecode for more details.
Texas A&M University

Departmental Request for a New Course
Undergraduate + Graduate + Professional

Submit original form and attach a course syllabus.

Form Instructions

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

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

3. Course prefix, number and complete title of course:
   VPAT 610 Cell Mechanisms of Disease

4. Catalog course description (not to exceed 50 words):
   Cellular mechanisms, morphologic manifestations and clinical presentations of illustrative disease processes.
   Prerequisites: Enrollment as a graduate student in BIMS, VTPB or BMEN, and permission of instructor.

5. Prerequisite(s):
   Permission of Instructor.

   Cross-listed with:

   Stacked with:
   VTPB 410

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

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

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

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

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

   Graduate students in BIMS, VTPB, BMEN

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

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

13. Title
   VPAT 610 Cell Mechanisms of Disease

   Degree:
   -Full
   -Other
   3.00
   0.00
   0.00
   3.00

   Exp: 2005
   2007
   000 000 000 000 000 000
   15 - 16
   0 0 3 6 3 2

   Approval recommended by:

   Dr. Roger Smith
   Department Head or Program Chair (Type Name & Sign)
   Date

   Chair, College Review Committee
   Date

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

   Submitted to Coordinating Board by:

   Associate Director, Curricular Services
   Date

   Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
   Curricular Services – 07/14
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

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

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

3. Course prefix, number and complete title of course:
   VPAT 610 Cell Mechanisms of Disease

4. Catalog course description (not to exceed 50 words):
   Cellular mechanisms, morphologic manifestations and clinical presentations of illustrative disease processes.
   Prerequisites: Enrollment as a graduate student in BIMS, VTPB or BMEN, and permission of instructor.

5. Prerequisite(s):

   Cross-listed with:
   - VTPB 410

   Stacked with: VTPB 410

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

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

8. Will this course be repeated within the same semester?
   - Yes
   - No

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

10. How will this course be graded:
    - Grade
    - S/U
    - P/F (CLM)

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

Graduate students in BIMS, VTPB, BMEN

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

13. Prefix   Course #   Title (excluding punctuation)
     VPAT  610   Cell Mechanisms of Disease

     3.00   0.00   0.00   3.00   51.2505   2907   15   -   16   0   0   3   6   3   2

Approval recommended by:

Dr. Roger Smith III
Department Head or Program Chair (Type Name & Sign)  Date  5-14-15

Dr. Jane Welch
Chair, College Review Committee

Dean of College
Chair, GCC UCC

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
VPAT 610, Special Topics in Cell Mechanisms of Disease  
Fall Semester, 2015

**General Course Description and Goals:**  
A special-topics graduate course in the basic cellular mechanisms and general manifestations of disease. Clinical and anatomical/morphological aspects of various diseases are used for illustration. Upon completion of this course, the student will have a basic medical vocabulary, understand the basic mechanisms of disease, and have an understanding of the descriptive terms used in pathology.

**Instructor:**  
B.R. Weeks, DVM, PhD
Diplomate, American College of Veterinary Pathologists (ACVP)  
Professor, Department of Veterinary Pathobiology  
Office: 54XB College of Veterinary Medicine  
e-mail bweeks@cvm.tamu.edu

**Prerequisites:**

Graduate Student Enrollment in BIMS, VTPB, or BMEN curriculum and permission of instructor

**Class meetings:**

Attendance at all scheduled class meetings is expected.  
*Per University policy, attendance will be checked and recorded.*

Tuesday and Thursday,  
Room ???, College of Veterinary Medicine

**Schedule of Events:**

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>First class meeting</td>
<td>September 1</td>
</tr>
<tr>
<td>First Examination (100 pts.)</td>
<td>October 6</td>
</tr>
<tr>
<td>Second Examination (100 pts.)</td>
<td>November 10</td>
</tr>
<tr>
<td>Term Project Due (100 points)</td>
<td>November 10</td>
</tr>
<tr>
<td>Last class meeting</td>
<td></td>
</tr>
<tr>
<td>Final Examination (100 pts.)</td>
<td>December 8</td>
</tr>
</tbody>
</table>

*Set by the Registrar’s office*

**Textbook and Course Materials:**
No textbook is required. The Introductory / General Pathology sections of any current medical Pathology textbook would provide good supplemental reading. A printed set of class notes is available, in the Media Resources department. Reading assignments from various scientific literature sources are an option.

**Students with Disabilities:**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 979-845-1637. For additional information visit http://disability.tamu.edu.
Exams and Grading

The first two examinations will take the place of regularly-scheduled lectures. The third, final exam will be administered as scheduled by the Office of the Registrar, during "finals week". Examinations may consist of any combination of multiple-choice questions, written short / long answers, True / False, matching, etc. Examination topics may include any class activity: regular lectures, guest lectures, reading assignments, demonstrations, video, in-class discussions, etc. All examinations are comprehensive, due to the fact that concepts presented throughout the course are interrelated.

In the event of a student's excused absence from an exam, a make-up examination will provided in written format (see below). Unexcused absence from an examination will result in a grade of "zero" (no grading points) for that examination. The final examination is mandatory, comprehensive, and equal in value to the others (100 points). The semester course grade is based upon the student's total score (points accumulated) for the 3 examinations and the required Term Paper / Project.

Term Paper or Project:
In addition to regularly-scheduled examinations, a term paper or project will be required. This project or paper will be in a topic relevant to the course and to the student's area of interest. The topic and scope of the project must be pre-approved by the instructor. The project / paper will be worth up to 100 grading points.

Course Grading Scale:
(400 total grading points are possible).
360 to 400 points: A
320 to 359 points: B
280 to 319 points: C
240 to 279 points: D
239 or fewer points: F

Missed Examinations:
The Fall 2015 class meeting and examination schedule is included in this syllabus. Notify Dr. Weeks immediately if you must request an excused absence from an examination. Refer to the Texas A&M University "Student Rules" (available online at http://student-rules.tamu.edu/rule07) for explanations of attendance policy, excused vs. unexcused absences, and make-up exam policies. Note that class assignments and examinations in other courses (other than specific, defined circumstances for final examinations) are not an excuse for missing an examination in this course. Requests for alternative final examination time/date are made through the student's College administrative office.

Excused absences from examinations must be made-up promptly at a time and place agreed upon between student and instructor. Make-up examinations will be in written format. A student's unexcused absence from an examination results in a grade of "zero" (no grading points) for that examination.

Questions about Grading:
Any question about grading on an examination must be brought to the instructor's attention within 1 week after grades for the examination are posted or otherwise made available to the class.
If scanned grading forms are used, the answer marked on the scanned form is your response. Unmarked responses and multiple responses are graded as incorrect.

Aggie Code of Honor

For many years Aggies have followed a Code of Honor, which is stated in this very simple verse: An Aggie does not lie, cheat or steal or tolerate those who do.
http://aggiehonor.tamu.edu
**Copyright Notice:** (per Faculty Senate request)

"All handouts used in this course are copyrighted. Handouts include (but are not limited to) syllabus, quizzes, examinations, laboratory problems, take-home problem sets, in-class materials, review sheets, and computer module programs. Students do not have the right to copy any of the handouts without expressed permission of the course instructors."

### Class Meeting and Examination Schedule: Fall Semester, 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1</td>
<td>Introductions, Syllabus, Background information.</td>
</tr>
<tr>
<td>September 3</td>
<td>Sectioning and Staining, Microscopy Techniques</td>
</tr>
<tr>
<td>September 8</td>
<td>Cell Injury: Reversible injury</td>
</tr>
<tr>
<td>September 10</td>
<td>Lethal Cell Injury and Cell Death</td>
</tr>
<tr>
<td>September 15</td>
<td>Necrosis</td>
</tr>
<tr>
<td>September 17</td>
<td>Pigments</td>
</tr>
<tr>
<td>September 22</td>
<td>Pigments / Tissue Deposits</td>
</tr>
<tr>
<td>September 24</td>
<td>Tissue Deposits / Cellular Adaptation</td>
</tr>
<tr>
<td>September 29</td>
<td>Tissue Adaptation and Growth Disturbances</td>
</tr>
<tr>
<td>October 1</td>
<td>Growth Disturbances</td>
</tr>
<tr>
<td>October 6</td>
<td><em>(Tuesday)</em> Test One</td>
</tr>
<tr>
<td>October 8</td>
<td>Inflammation</td>
</tr>
<tr>
<td>October 13</td>
<td>Inflammation</td>
</tr>
<tr>
<td>October 15</td>
<td>Inflammation</td>
</tr>
<tr>
<td>October 20</td>
<td>Wound Healing</td>
</tr>
<tr>
<td>October 22</td>
<td>Basic Immunology Concepts</td>
</tr>
<tr>
<td>October 27</td>
<td>Basic Immunology Concepts</td>
</tr>
<tr>
<td>October 29</td>
<td>Immune-mediated Injury</td>
</tr>
<tr>
<td>November 3</td>
<td>Immune-mediated Injury</td>
</tr>
<tr>
<td>November 5</td>
<td>Immunological Diseases</td>
</tr>
<tr>
<td>November 10</td>
<td><em>(Tuesday)</em> Test Two &amp; Term Paper / Project Due.</td>
</tr>
<tr>
<td>November 12</td>
<td>Immune Deficiency Diseases</td>
</tr>
<tr>
<td>November 17</td>
<td>Disturbances of Blood Flow</td>
</tr>
<tr>
<td>November 19</td>
<td>Disturbances of Blood Flow</td>
</tr>
<tr>
<td>November 24</td>
<td>Clotting and Thrombosis</td>
</tr>
<tr>
<td>November 26</td>
<td>Thanksgiving Holiday</td>
</tr>
<tr>
<td>December 1</td>
<td>Clotting and Thrombosis</td>
</tr>
<tr>
<td>December 3</td>
<td>Neoplasia</td>
</tr>
<tr>
<td>December 8</td>
<td>Neoplasia (last class meeting)</td>
</tr>
<tr>
<td>December X</td>
<td>Final Examination</td>
</tr>
</tbody>
</table>

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

*Request submitted by (Department or Program Name): Department of Veterinary Small Animal Clinical Sciences
VSCS 697 Teaching Neuroanatomy Lab

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

2. Course prefix, number and complete title of course:
VSCS 697 Teaching Neuroanatomy Lab

3. Catalog course description (not to exceed 50 words):
Theory and practical aspects of teaching neuroanatomy lab and clinical neurology; emphasis on content, instructional methods and practical aspects of neuroanatomy lab.

4. Prerequisite(s):
Prerequisites: Graduate classification in VIBS/VSCS; appointment as TA for VIBS 913 anatomy lab.

5. Cross-listed with:
Stacked with:

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

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

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

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

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

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

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

13. Prefix Course # Title (excluding punctuation)

<table>
<thead>
<tr>
<th>VSCS</th>
<th>697</th>
<th>Teaching Neuroanatomy Lab</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Credit</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CR and Fund Code</th>
<th>Admin Unit</th>
<th>Acad Year</th>
<th>ICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00</td>
<td>12.00</td>
<td>4.00</td>
<td>2615020002</td>
<td>2883</td>
<td>16</td>
<td>17</td>
<td>0 0 3 6 3 2</td>
</tr>
</tbody>
</table>

Approval recommended by:
Jonathan Levine
Department Head or Program Chair (Type Name & Sign) Date 9/21/15
Chair, College Review Committee Date

Department Head or Program Chair (Type Name & Sign) Date 11/24/15
Dean of College Date

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

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 07/14
Course title and number  VSCS 697 Teaching Neuroanatomy Lab
Term (e.g., Fall 200X)  Spring 2017
Meeting times and location  Lecture (room 101)
Lab (histology lab)
Lecture occurs twice weekly for the first six weeks of the course (W/F) and once weekly for the last 9 weeks of the course (W).
Laboratory occurs twice weekly throughout the course (T/W).

Course Description and Prerequisites

Theory and practical aspects of teaching neuroanatomy lab and clinical neurology, with emphasis on content, instructional methods and practical aspects of neuroanatomy lab. May be repeated for credit.
Prerequisites: Graduate classification in VIBS/VSCS; appointment as a TA for VIBS 813 neuroanatomy lab.

Course Learning Outcomes

By the end of this class, students will be able to:
- Prepare neuroanatomy laboratories for veterinary students
- Show veterinary students important neuroanatomic structures
- Apply classroom management strategies in the facilitation of a course within your discipline
- Develop a reflective and purposeful approach to teaching
- Apply anatomic knowledge to surgical and clinical scenarios

Instructor Information
Co – Instructors

Name  Kelley Thieman Mankin
Telephone number  979-845-2351
Email address  kthieman@cvm.tamu.edu
Office hours  By appointment
Office location  VSCS 2001

Name  Anton Hoffman
Telephone number  979-845-5948
Email address  AHoffman@cvm.tamu.edu
Office hours  By appointment
Office location  VMS 156 (adjacent to anatomy lab)

Grading Policies

This course will be graded. Student grades will be determined by development of a teaching portfolio (25%) and participation (75%). Participation grades will be determined based on laboratory attendance, and interaction with the veterinary students, specifically the ability to assist and explain anatomy to the veterinary students. Knowledge of the anatomy of the dog and cat based on prosection and assistance
during laboratory will also be used to determine the final grade. The teaching portfolio will consist of the TA's reflective teaching statement which will include his/her personal teaching philosophy, strategies and objectives. Further, the portfolio will include suggested activities to improve instruction. The instructor will evaluate the teaching portfolio. Following the completion of the course, the TA will be able to include documentation of teaching in the form of student evaluations.

Grading scale

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = ≤59%

Attendance and Make-up Policies

Students are expected to attend all laboratories and complete all assignments. Students are highly encouraged to attend all lectures. See student rule 7 for information on excused absences and make-up work. [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)

Course Topics, Calendar of Activities, Major Assignment Dates

This course will emphasize functional neuroanatomy and clinical neurology. The course will begin with prosection times for TA familiarity. Exams are not given. Prosection times and days are flexible. The students will follow the calendar provided. TAs are expected to attend each laboratory session and be prepared by performing prosections ahead of schedule.

The laboratory topics correspond with the lecture topics listed below. Some shorter lecture topics are combined into one lecture hour but listed individually below.

The teaching portfolio is due Wednesday, May 4th, 2016.

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview of CNS/PNS</td>
</tr>
<tr>
<td>2</td>
<td>Basic nervous system concepts</td>
</tr>
<tr>
<td>3</td>
<td>Solving neurological problems</td>
</tr>
<tr>
<td>4</td>
<td>Spinal cord</td>
</tr>
<tr>
<td>5</td>
<td>LMNs, UMNIs</td>
</tr>
<tr>
<td>6</td>
<td>Spinal and peripheral nerves</td>
</tr>
<tr>
<td>7</td>
<td>Spinal reflexes</td>
</tr>
<tr>
<td>8</td>
<td>Cranial nerves</td>
</tr>
<tr>
<td>9</td>
<td>Cranial nerve reflexes</td>
</tr>
<tr>
<td>10</td>
<td>Vision and PLR</td>
</tr>
<tr>
<td>11</td>
<td>UMN descending tracts</td>
</tr>
<tr>
<td>12</td>
<td>Horner's syndrome</td>
</tr>
<tr>
<td>13</td>
<td>Radiographic imaging of the CNS</td>
</tr>
<tr>
<td>14</td>
<td>Ascending tracts — proprioception and nociception</td>
</tr>
<tr>
<td>15</td>
<td>Cerebellum and cerebellar disease</td>
</tr>
<tr>
<td>16</td>
<td>Vestibular system and vestibular disease</td>
</tr>
<tr>
<td>17</td>
<td>Postural responses</td>
</tr>
<tr>
<td>18</td>
<td>Overview of the neurological exam</td>
</tr>
<tr>
<td>19</td>
<td>Small animal neurological exam</td>
</tr>
<tr>
<td>20</td>
<td>Autonomic nervous system</td>
</tr>
<tr>
<td>21</td>
<td>Autonomic nervous system</td>
</tr>
<tr>
<td>22</td>
<td>Equine neurological exam</td>
</tr>
<tr>
<td>23</td>
<td>Diffuse neuromuscular disease</td>
</tr>
</tbody>
</table>
Americans with Disabilities Act (ADA)

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

Academic Integrity

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

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

Resources

VIBS 913 Class Notes, Anton Hoffman, 2015


Center for Teaching Excellence at Texas A&M University. Cte.tamu.edu


Center for Teaching Excellence http://cte.tamu.edu/