1. **New Course Requests:**
   a. AERO 645 Failure Mechanics of Engineering Materials
   b. AGEC 616 Climate Change Considered
   c. ANSC 651 Current Issues in Animal Agriculture
   d. BUSH 602 Writing for the Medal of Excellence
   e. EEBL 630 Big Bend National Park Natural History Survey
   f. EHRD 619 Conflict Management and Dialogue
   g. ENGR 630 Fundamentals of Subsea Engineering
   h. FINC 662 Energy Finance
   i. MEEN 611 Advanced Internal Combustion Engines
   j. MSEN 645 Failure Mechanics of Engineering Materials
   k. NUTR 679 Lipoproteins in Health and Disease
   l. POSC 679 Lipoproteins in health and Disease

2. **Course Change Requests:**
   a. EDTC 642 Designing for Mobile Learning

3. **Change in Curriculum**
   a. College of Geosciences – Geology and Geophysics – BA in Geology + MS in Oceanography
   b. College of Geosciences – Geology and Geophysics – BS in Geology + MS in Oceanography
   c. College of Geosciences – Geology and Geophysics – BS in Meteorology + MS in Oceanography
   d. College of Geosciences – Oceanography- BS in Environmental Geosciences + MS in Oceanography

4. **Special Consideration Items:**
   b. Texas A&M University – Law School – Master of Jurisprudence – New Graduate Program Proposal
   c. Texas A&M University – Law School – Master of Laws – New Graduate Program Proposal
   d. Texas A&M Health Science Center – Certificate in Healthcare Forensic- New Graduate Program Proposal

5. **Informational Items**
   a. College of Pharmacy- Doctor of Pharmacy – Change in Curriculum
      i. New Courses
         1. PHAR 820 APPE: Elective I
         2. PHAR 821 APPE: Elective II
         3. PHAR 822 APPE: Elective III
         4. PHAR 873 Pharmacy Professionalism
      ii. Course Changes
         1. PHAR 756 Pharmacy Management
New Courses
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

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

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

3. Course prefix, number and complete title of course:
   AERO 645 - Failure Mechanics of Engineering Materials

4. Catalog course description (not to exceed 50 words):
   Introduction and integration of key experimental, theoretical and computational aspects of failure in engineering materials, including metals and their alloys as well as polymers; includes brittle fracture, ductile fracture and brittle-to-ductile transitions.

5. Prerequisite(s):
   Graduate Classification; MSEN 601.
   Cross-listed with: MSEN 645  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)
      n/a
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      Aerospace Engineering, Materials Science & Engineering

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

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

13. Prefix  Course #  Title (excluding punctuation)
    AERO  645  FAILURE MECH ENGR MATLS

    Lec.  Lab  Other  SCH  CIP and Fund Code  Admin. Unit  Acad. Year  FICE Code
    3.00  0.00  0.00  3.00  14020100006  0100  15  -  16  0  0  3  6  3  2

Approval recommended by:
Vikram K. Kinra - AERO
Department Head or Program Chair (Type Name & Sign)  Date
John Criscione  Chair, College Review Committee  Date

Miladin Radovic - MSEN
Department Head or Program Chair (Type Name & Sign)  Date
John Criscione  Dean of College  Date

Submitted to Coordinating Board by:
Karen Butler-Purry  Chair, GC or UCC  Date

Associate Director, Curricular Services  Date  Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
AERO/MSEN 645 – Failure Mechanics of Engineering Materials

Credit 3: (3-0), Graduate Elective
SPRING 2016

Instructor: Dr. A. Amine Benzeraga, HRBB-736C. E-mail: benzeraga@tamu.edu
Office Hours: TBD
Phone: 845-1602

Course Description: Introduction and integration of key experimental, theoretical and computational aspects of failure in engineering materials, including metals and their alloys as well as polymers; includes brittle fracture, ductile fracture and brittle-to-ductile transitions.

Prerequisites: Graduate student classification; MSEN 601-Introduction to Materials Science and Engineering.

Expanded Course Description:
This course introduces and integrates key experimental, theoretical and computational aspects of failure in engineering materials, including metals and their alloys as well as polymers; topics include: brittle fracture, ductile fracture and brittle-to-ductile transitions. A field theory course and/or MEMA 611-Fracture Mechanics helpful.

Textbook and Required Material:
Typed Lecture Notes:
Ductile Fracture of Metals
A.A. Benzeraga, 2014

Failure of Metals (114 pages)
In Comprehensive Structural Integrity
Pineau and Pardoen
Elsevier, 2007

Learning Objectives: Students will learn (i) how to distinguish between ductile and brittle fracture surfaces using fractography; (ii) the mechanisms of failure at microstructural length scales; (iii) micromechanics models of fracture and plastic flow localization. Students are expected to develop a fundamental understanding of engineering materials failure through a semester-long project. Project can focus on experiments, theory or simulations.
<table>
<thead>
<tr>
<th>Topic by Lecture</th>
<th>Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td></td>
</tr>
<tr>
<td>1. Failure types, modes and mechanisms</td>
<td>1</td>
</tr>
<tr>
<td><strong>Part A: Cleavage in Metals</strong></td>
<td>3</td>
</tr>
<tr>
<td>2. Theories of Cleavage</td>
<td>2</td>
</tr>
<tr>
<td>2.1. Theoretical cleavage stress</td>
<td></td>
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<tr>
<td>2.2. Dislocation-based theories</td>
<td></td>
</tr>
<tr>
<td>3. Transgranular Cleavage</td>
<td>3</td>
</tr>
<tr>
<td>3.1. Case of ferritic steels</td>
<td></td>
</tr>
<tr>
<td>3.2. Case of other metals</td>
<td></td>
</tr>
<tr>
<td>4. Intergranular Fracture</td>
<td>4</td>
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<tr>
<td><strong>Part B: Ductile Fracture</strong></td>
<td>7</td>
</tr>
<tr>
<td>5. Experimental Facts</td>
<td>5</td>
</tr>
<tr>
<td>5.1. Macroscopic aspects</td>
<td></td>
</tr>
<tr>
<td>5.2. Microscopic mechanisms (Fractography)</td>
<td></td>
</tr>
<tr>
<td>5.3. Microscopic Measurements</td>
<td></td>
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<tr>
<td>6. Void Formation and Damage Initiation</td>
<td>6</td>
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<tr>
<td>6.1. Metal alloys</td>
<td></td>
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<td>6.2. Amorphous polymers</td>
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<td>6.3. Semicrystalline polymers</td>
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<tr>
<td>6.4. Pure metals</td>
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<tr>
<td>6.5. Void formation at micron and sub-micron scales</td>
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<tr>
<td>7. Void Growth Theories</td>
<td>7</td>
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<tr>
<td>7.1. Uncoupled modes (triaxiality effects)</td>
<td></td>
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<td>7.2. Coupled models (stress state effects)</td>
<td></td>
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<tr>
<td>7.2.1. Elements of homogenization theory</td>
<td></td>
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<tr>
<td>7.2.2. Self-consistent models</td>
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<tr>
<td>7.2.3. Limit-analysis models</td>
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<tr>
<td>8. Void Coalescence</td>
<td>8</td>
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<tr>
<td>8.1. Internal necking</td>
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<tr>
<td>8.2. Void-sheet coalescence</td>
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<tr>
<td>8.3. Necklace coalescence</td>
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<tr>
<td>9.1. Necking in bars and sheets</td>
<td></td>
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<tr>
<td>9.2. Shear band formation</td>
<td></td>
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<tr>
<td>10. Crack Initiation and Crack Growth</td>
<td>10</td>
</tr>
<tr>
<td>10.1. Bottom-up (materials science) approach</td>
<td></td>
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<tr>
<td>10.2. Top-down (materials engineering) approach</td>
<td></td>
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<tr>
<td>10.3. Initially crack-free specimens</td>
<td></td>
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<tr>
<td>10.4. Pre-cracked specimens</td>
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<tr>
<td>10.5. Fracture loci and failure maps of a ductile material</td>
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<tr>
<td><strong>Part C: Ductile-Brittle Transition (DBT)</strong></td>
<td>2</td>
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<tr>
<td>11. DBT in Fracture Toughness Tests</td>
<td>11</td>
</tr>
<tr>
<td>12. DBT in Charpy Impact Testing</td>
<td>12</td>
</tr>
<tr>
<td>13. Models of DBT</td>
<td>13</td>
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</tbody>
</table>
Total Weeks 14
Final Exam 15

GRADING:
Homework 30%
Term Project 40%
Final Exam 30%

Method of Evaluation:

Grading percentages will be Homework 30%, Term Project 40%, and Final Exam 30%.
Grading Policy: A 90 – 100%, B 80 – 89%, C 70 – 79%, D 60 – 69%, F below 60%.

Attendance and Make-up Policy:
Late homework will be accepted for full credit only with the consent of the instructor at least 24 hours prior to class on the due date or due to a University excused absence.
You are responsible for any material covered and/or any assignments given even if absent from class. The university views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located on-line at: http://student-rules.tamu.edu/rule07.

Academic Integrity:
An Aggie does not lie, cheat, or steal or tolerate those who do.
The Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living under this code will be no problem, as it asks nothing of a person that is beyond reason. It only calls for honesty and integrity, characteristics that Aggies have always exemplified. As commonly defined, plagiarism consists of passing off as one’s own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please visit http://aggiehonor.tamu.edu and consult the latest issue of the Texas A&M University Student Rules at http://student-rules.tamu.edu/. Or, consult the instructor.

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

Revised: Nov.13, 2014
Form Instructions
1. Course request type:  
   - Undergraduate  [X] Graduate  [ ] First Professional (D.D.S., M.D., J.D., Ph.D., D.V.M.)
2. Request submitted by (Department or Program Name):  
   Department of Agricultural Economics
3. Course prefix, number and complete title of course:  
   AGEC 616 Climate Change Considered
4. Catalog course description (not to exceed 50 words):  
   Global Climate Change, including (i) the physical sciences, (ii) impacts, adaptation, and vulnerability,  
   (iii) mitigation options, and (iv) understanding and addressing the challenges of climate change communication

5. Prerequisite(s):
   Cross-listed with: GEOS 616  
   Stacked with: AGEC 416 & GEOS 416
   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  [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 programs(s) (e.g., B.A. in history)
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

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

12. [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)
    AGEC  616  CLIMATE CHANGE CONSIDERED

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>EICE Code</th>
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<td>17</td>
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</tbody>
</table>

Approval recommended by:  
C. Parr Rosson III

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

Chair, College Review Committee  
Date

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 Description

Global Climate Change findings and issues, including (i) the physical science aspects, (ii) impacts, adaptation, and vulnerability, (iii) mitigation options, and (iv) understanding and addressing the challenges of climate change communication. This survey course is designed and intended for students from all majors and it will be taught by faculty members from three colleges: Agriculture and Life Sciences; Architecture; and Geosciences.

Course is open to Galveston and other satellite campus students via TTVN.

Prerequisites

Advanced undergraduate standing (junior or senior classification), graduate student standing, or approval of instructor.

Learning Outcomes

Climate change will influence your future, and you will likely have to take climate change into consideration in your future profession, whether it is business, resource management, engineering, regional planning, architecture and construction, agriculture, health care, education, or local to global policy making. Societal decisions regarding our energy future will have to be made, and you will gain an improved understanding so you can participate in the debate over strategies for mitigating or adapting to climate change. Employers will be looking for people with the knowledge to make responsible, information-based decisions. Through this seminar course, you will gain the necessary background to

- Access current projections for global climate change and knowledge of the causes of the change,
- Appraise mitigation options as they affect energy production and environmental quality,
- Assess the vulnerability of entities to climate change and help formulate adaptation options, and
- Communicate on the topic to stakeholders regarding effects and possible policies that address or involve climate change

You will attain a professional and personal advantage from having such knowledge and gain experience useful to your future employment and participation in societal decision making.

Instructor Background

Texas A&M University has faculty members who are among the world’s experts in climate science and change, societal and human dimensions of climate change, mitigation of and adaptation to climate change, and communicating climate change to the public. They are contributing authors of the Intergovernmental Panel on Climate Change, the U.S. National Climate Assessment reports, other regional and national climate change reports, and hundreds of scientific and scholarly journal articles. Students have an unique opportunity to learn from these individuals and to be better prepared to understand and navigate this important global issue.
## Instructor Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunnar W. Schade</td>
<td>Department of Atmospheric Sciences</td>
</tr>
<tr>
<td>979.845.0633</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:gws@tamu.edu">gws@tamu.edu</a></td>
<td></td>
</tr>
<tr>
<td>O&amp;M 1012A</td>
<td></td>
</tr>
<tr>
<td>Liliana Beltran</td>
<td>Department of Architecture</td>
</tr>
<tr>
<td>979.845.6545</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:lbeltran@arch.tamu.edu">lbeltran@arch.tamu.edu</a></td>
<td></td>
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<tr>
<td>Langford A 444</td>
<td></td>
</tr>
<tr>
<td>Samuel Brody, Dept. of Marine Sciences</td>
<td>Ocean and Coastal Studies Bldg. 366</td>
</tr>
<tr>
<td>409-740-4939</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:brodys@tamug.edu">brodys@tamug.edu</a></td>
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<tr>
<td>Bruce McCarl, Department of Agricultural</td>
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<tr>
<td>Economics</td>
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<tr>
<td>979.845.1706</td>
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<tr>
<td><a href="mailto:mccarl@tamu.edu">mccarl@tamu.edu</a></td>
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<tr>
<td>AGLS 373C</td>
<td></td>
</tr>
<tr>
<td>David Briske and Georgianne Moore, Dept.</td>
<td>Centeq Building 130C, Horticulture and</td>
</tr>
<tr>
<td>of Ecosystem Science and Management</td>
<td>Forest Science Building 316</td>
</tr>
<tr>
<td>979.845.5581, 979.845.3765</td>
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<tr>
<td><a href="mailto:dbriske@tamu.edu">dbriske@tamu.edu</a>, <a href="mailto:gwmoore@tamu.edu">gwmoore@tamu.edu</a></td>
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<tr>
<td>Stuart Carlton, Sea Grant Administration</td>
<td>Ocean and Coastal Studies Building 340H</td>
</tr>
<tr>
<td>And Program</td>
<td></td>
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<tr>
<td>409.740.4983</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:stuartcarlton@tamu.edu">stuartcarlton@tamu.edu</a></td>
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</tbody>
</table>

## Textbook and/or Resource Material

The course will be based on national and international climate appraisals and the scientific literature. Fundamental resources will include the Intergovernmental Panel on Climate Change (IPCC) 2013 and 2014 reports (available online at [http://www.ipcc](http://www.ipcc)), the U.S. National Climate Assessment (available online at [http://nca2014.globalchange.gov](http://nca2014.globalchange.gov)), and additional readings to be made available online.

Summaries of all materials presented in class will be posted on line prior to class in which they are presented and discussed. Our prime class communication tool will be an [http://ecampus.tamu.edu](http://ecampus.tamu.edu) course page that will be populated throughout the semester. It will contain all presentation materials, assigned readings, a dynamic list of short project topics to choose from depending on your major or personal interests, and discussion sessions with the instructors of this class and their special fields. It will thus provide for student-instructor, and student-student communication, including topical discussions on relevant news items.
Group Project

Group projects will be carried out summarizing an area of concern. Graduate student group project(s) will also include a component focused on organizing, communicating, and interpreting the science of climate change to a select peer audience.

Grading Policies

Your letter grade will be composed of four sub-grades:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>weekly clicker questions in class to assess your class presence and whether you come prepared to the class sessions (split 50:50 into presence and correct answers, meaning 20% of your grade is awarded for being present and another 20% for answering questions correctly through coming to class prepared)</td>
<td>40%</td>
</tr>
<tr>
<td>short online quizzes about class topics</td>
<td>20%</td>
</tr>
<tr>
<td>a short group project, summarizing a select aspect of the climate issue</td>
<td>30%</td>
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<tr>
<td>class participation in discussion groups online, and in class depending on class size</td>
<td>10%</td>
</tr>
</tbody>
</table>

Additionally up to 5 bonus points will be awarded for outstanding achievement.
Graduate and undergraduate students will be graded independently.

Grading (percentage) Scale: 100-90: A; 89-80: B; 79-66: C; 65-55: D; less than 55: F

Additional Requirements of Graduate Students: Graduate student work will be assessed differently from undergraduate students as follows:
1. Graduate students will be given more time and additional questions on quizzes
2. Graduate students are expected to provide more depth in their group projects, and an extended grading rubric for graduate students will be used for evaluation. In addition, graduate students will be assigned to peer-review undergraduate student projects and give a short presentation of their group project
3. Participating graduate students are encouraged to take a leading role in online discussions, and to organize outreach activities, such as movie presentations to peer groups with post-movie discussions
4. The grade computation for graduate students will use the percentage allocation specified above.
### Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading / Watching</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Why and how is Earth’s climate changing? (Schade)</td>
<td>“The greenhouse effect”</td>
</tr>
<tr>
<td>2</td>
<td>Consequences of Climate Change (Schade)</td>
<td>IPCC WG1, SPM</td>
</tr>
<tr>
<td>3</td>
<td>Future climate, global and regional changes (Schade)</td>
<td>IPCC WG1, SPM; NCA-3 overview</td>
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<tr>
<td>4</td>
<td>Climate myths vs. science</td>
<td>TBD</td>
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<tr>
<td>5</td>
<td>Climate change effects in Texas and society plus broad policy</td>
<td>TBD</td>
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<tr>
<td>6</td>
<td>approaches to address it (McCarl)</td>
<td>TBD</td>
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<td>7</td>
<td>Directions for and potential analysis of climate change adaptation</td>
<td>TBD</td>
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<tr>
<td></td>
<td>in multiple sectors (McCarl)</td>
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<tr>
<td>8</td>
<td>Directions for and potential analysis of climate change mitigation</td>
<td>TBD</td>
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<td></td>
<td>in multiple sectors (McCarl)</td>
<td>TBD</td>
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<td>9</td>
<td>Climate change implications for land use, urban regions, and</td>
<td>TBD</td>
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<td></td>
<td>sustainability (Brody)</td>
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<td>10</td>
<td>Climate change implications for ecosystem structure and function</td>
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<td></td>
<td>(Briske, Moore)</td>
<td>TBD</td>
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<td>11</td>
<td>Green design and construction: Case studies in mitigation and</td>
<td>Six Americas study</td>
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<td></td>
<td>adaptation (Beltran), short project draft due</td>
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<td>12</td>
<td>Communication and the climate change controversy (Carlton)</td>
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<tr>
<td>13</td>
<td>Addressing climate change misinformation (Carlton, Schade)</td>
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<tr>
<td>14</td>
<td>Group project presentations and write-up due</td>
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<td></td>
<td>Wrap-up and Synthesis. Movie Party</td>
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</tbody>
</table>

### Other Pertinent Course Information

E-campus: The course is organized around an ecampus webpage that contains all course materials. Your quizzes will be administered online through the webpage, and your written part of the group project will be submitted through the webpage as well.

Attendance: It is expected not only that you attend class, but that you come prepared via completing the pre-class assignments as posted weekly on the ecampus page. For rules concerning absences please refer to http://student-rules.tamu.edu/rule07.

Clickers: Weekly attendance and question response will be recorded via the use of iclickers, a student response system to evaluate course engagement and knowledge retention. Everything you need to know can be found here: http://hdc.tamu.edu/Academics/Classroom_Equipment/Clickers/index.php, and your personal iclicker, should you not have purchased one already, can be acquired from the A&M bookstore on campus. Note that iclickers can be shared between students unless you are taking the same course.

Make-Up Policy: Makeup quizzes and presentation will be given or need to be done within one week of the original quiz or presentation dates, but only for those who have university-excused absences and receive prior approval from the instructor. Missing iclicker scores will be set to the individual student average for any university excused absences.
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, Students Services at White Creek building # 62, 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."

According to the Texas A&M University Definitions of Academic Misconduct, plagiarism is the appropriation of another person’s ideas, processes, results or words without giving appropriate credit (http://aggiehonor.tamu.edu). You should credit your use of anyone else’s words, graphic images, or ideas using standard citation styles in all of your assignments. If I should discover that you have failed to properly credit sources or have used a paper, or parts of a paper written by someone else, you will receive an F for that assignment and will be assigned a remediation course through the Aggie Honor System Office. Its processes for adjudication and appeals can be found at, and for additional information please visit http://aggiehonor.tamu.edu. Note that faculty are obliged to report any academic dishonesty issues that arise to the Aggie Honor System Office even if the case is resolved between the faculty member and the student. That will be considered the student's first offense. A second offense will lead to more severe consequences, including dismissal from the 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 (MD, 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 651 Current Issues in Animal Agriculture

4. Catalog course description (not to exceed 50 words):
   Prepare students to project a professional image and use communication skills to describe animal agriculture; converse about the strengths and weaknesses of animal agriculture.

5. Prerequisite(s): Graduate classification
   Cross-listed with:  
   Stacked with: ANSC 351
   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
   □ Yes  □ No
   P/F (CLMD)

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

10. This course will be:
    a. required for students enrolled in the following degree programs(s) (e.g., B.A. in history)
    b. an elective for students enrolled in the following degree programs(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)
    ANSC 651  Current Issues in Animal Ag

    | Lec. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | HLC Code |
    |------|-----|-------|-----|-------------------|-------------|------------|----------|
    | 3.00 | 0.00| 0.00  | 3.00| 010901005         | 0270        | 16 -       | 17       |

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

    David Reed  
    Chair, College Review Committee  Date

    Mark Hussey  
    Dean of College  Date

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

    Submitted to Coordinating Board by:
    Associate Director, Curricular Services

    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 651
CURRENT ISSUES IN ANIMAL AGRICULTURE
Spring 20XX

Professors: Gary C. Smith  
gary.smith@ag.tamu.edu  210-913-8939
Chris Kerth  
c-kerth@tamu.edu  979-224-1707
Dan Hale  
dhale@tamu.edu  979-587-9245
Ashley Arnold  
a.arnold@tamu.edu  979-862-3643

Meeting Time: Tue/Thurs 9:35-10:50 AM, KLCT 400

Course Format: 3 hours of lecture, 3 credits, stacked with ANSC 351
Prerequisites: Graduate Student classification

Course Description: College graduates entering the workforce for the first time are expected to be knowledgeable of the technical subject-matter in their field. In addition, they should exhibit awareness and understanding of the concerns of some in the general public about specific elements of their profession. The field of animal agriculture has, of late, been a lightning rod for skeptics and critics with both real and inaccurately perceived criticisms of what, how and why certain things are done. This course is intended to prepare graduates to project a professional image while using their communication skills to describe animal agriculture and to discuss its strengths and weaknesses with others.

Learning Outcomes: (1) Upon completion of this course students will be able to create and deliver referential and persuasive discussions of topics and issues currently relevant to animal agriculture. (2) Students will demonstrate: (a) analytical reading ability, critical thinking and library research skills, and (b) communication skills in written and spoken discourse.

Conduction of Class: (1) The first class period will consist of introductory information (i.e., course objectives, the Synopsis, Source Citations, Oral Presentations, honesty, plagiarism, regular and final examinations, final grades, differences in expectations for ANSC 651 vs. ANSC 351 students, etc.). (2) Beginning with the second class period, a single “Current Issue” will be discussed each week (two class periods) or—occasionally—at a single class period. (3) At the beginning of the second and each subsequent regular class meeting, each student will submit to the professor a handwritten (in cursive) Synopsis comprised of three (ANSC 351 students) or five (ANSC 651) sentences. (4) The Synopsis will consist of a first sentence in which the student describes her/his position regarding the “Current Issue.” Students can take a positive, negative or neutral position on an individual “Current Issue” without jeopardizing their grade in the course. As an example, the first sentence might say, “The Current Issue is that some people believe that grazing animals should never be tethered to constrain their movements, but I believe there are circumstances in which tethering is appropriate.” (5) The second
and third (ANSC 351) and the second, third, fourth and fifth (ANSC 651) sentences of the Synopsis will consist of the best statements of fact that the student can construct—based on her/his research—to support her/his position regarding that “Current Issue.” Each of the statements must have a Source Citation. As an example, a supporting statement might be “John Doe (Ruminant Science, Volume 72, page 341, 2012) supports the use of tethering for producers on small-scale sheep operations that cannot afford to construct fences.” or “Jane Doe (Proceedings of the International Livestock Congress, page 27, January 8, 2013) believes tethers—properly constructed and deployed—are humane and do not create undue animal stress or pain.” Students may use as Source Citations: (a) Statements by scientists generally regarded as experts on the subject from Internet, newspaper, magazine, textbook, White Paper, or personal interview sources, and; (b) Results of studies from a scientific journal article, a Proceedings paper, or a review commissioned by a nonprofit organization (e.g., NCBA, USDA, ASI, NPPC, NTF, PETA, PEW, NCC, HSUS, etc.) (6) During each regular class period, as many as possible of the students in the class will make an Oral Presentation of his/her Synopsis—without use of any notes or visual aids. Other students and the professor will constructively critique the substance of the Synopsis and the delivery of the Oral Presentation.

Attendance and Makeup Policies: Regular class attendance is expected. Excused absences must be confirmed and include: (1) Participation in authorized University activity. (2) Confinement due to illness (statement signed by a physician is required). (3) Death in immediate family. (4) Participation in legal proceedings that require the student’s presence. (5) For additional information about the attendance and makeup policies, please refer to Student Rule 7 at http://student-rules.tamu.edu/rule07. 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 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.

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Academic Integrity Statement and Policy: “An Aggie does not lie, cheat, or steal; or tolerate those who do.”—Aggie Honor Code http://www.aggiehonor.tamu.edu
Honesty: According to the Texas A&M University Definitions of Academic Misconduct, plagiarism is the appropriation of another person's ideas, processes, results or words without giving appropriate credit. You should credit your use of anyone else's words, graphic images, or ideas using standard citation styles. If I should determine that you have failed to properly credit sources or have used all or parts of a Synopsis written by someone else, I will turn in your work to the Aggie Honor System Office for adjudication.

Grading Procedure: Each student's Synopsis, if submitted on time, will be evaluated by the professor and assigned a score of 10 points if "Satisfactory" or 5 points if "Unsatisfactory"; no points will be given if the Synopsis is not submitted on time. The maximum possible sum of Synopsis scores will be 25 times 10 or 250 points but a perfect total score will be considered to be 200 points.

There will be three examinations (A, B, and Final); each will be worth 100 points.

Final Grades will be based on percentages of 500 total points (200 for Synopsis plus 300 for exams):

90% (450 or higher) = A
80% (400-449) = B
70% (350-399) = C
60% (300-349) = D
59% (299 or lower) = F.

Additional Expectations—ANSC 651 vs. ANSC 351: (a) Graduate Students (GS) will, as described above, be expected to provide twice as many Source Citations in each Synopsis. (b) GS will be called upon to give oral presentations more frequently than will Undergraduate Students (UGS). (c) GS enrolled for ANSC 651 credit will serve as advisors and tutors for UGS enrolled for ANSC 351 credit with regard to searching the scientific literature and delivering oral presentations. At the first class meeting, GS will provide their phone number or email address so UGS can seek assistance if, and as, needed.

Postscripts:
- A Fleishman-Hillard and The Motherhood.com survey (2013) revealed that "The primary sources for consumers obtaining information about food" (e.g., GMOs, pesticides, food safety, etc.) were: 39%, from trusted food and mom blogs; 31%, information from peers off-line; 24%, from the government, and; 17%, from physicians.

- "A university’s obligation is not to teach students what to think but to teach students how to think... If students graduate with ears and minds closed, the university has failed both the student and society."
  (Source: Michael Bloomberg, Reader's Digest, October 2014)
<table>
<thead>
<tr>
<th>Week</th>
<th>Course Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction; Labeling Gluten-Free Food</td>
</tr>
<tr>
<td>2</td>
<td>Importance of Beef, Pork, or Lamb (Tues) and Poultry or Dairy Products (Thurs) in the Human Diet—choose one for each class period</td>
</tr>
<tr>
<td>3</td>
<td>Vegetarianism/Veganism; Food Security (USA and Globally)</td>
</tr>
<tr>
<td>4</td>
<td>Food Defense (relative to Bioterrorism); Food Waste In the USA</td>
</tr>
<tr>
<td>5</td>
<td>Sustainability of Livestock Production in the USA; Major Examination A</td>
</tr>
<tr>
<td>6</td>
<td>Microbiological Safety of US Food; Microbiological Safety of Imported Food</td>
</tr>
<tr>
<td>7</td>
<td>Chemical Safety of US Food; Chemical Safety of Imported Food</td>
</tr>
<tr>
<td>8</td>
<td>Comparative Food Safety of Conventional vs. Local or Natural (Tues) and vs. Organic or Grass-Fed (Thurs) Beef</td>
</tr>
<tr>
<td>9</td>
<td>Animal Well-Being in Production Settings (Tues) and in Loading/Hauling/ Harvesting (Thurs)</td>
</tr>
<tr>
<td>10</td>
<td>Country-Of-Origin Labeling of Beef; Major Examination B</td>
</tr>
<tr>
<td>11</td>
<td>Is Global Warming a Result of Human Activity?; How Much of GHG Production Is a Result of Animal Production?</td>
</tr>
<tr>
<td>12</td>
<td>GMOs—GE In Animal/Plant Foods; GMOs—Cloning in Animal/Plant Foods</td>
</tr>
<tr>
<td>13</td>
<td>Antibiotics for Growth Promotion in Meat Animals; Causes of Antimicrobial Resistance in Human Pathogens</td>
</tr>
<tr>
<td>14</td>
<td>Use of Hormonal (Tues) or B-agonistic (Thurs) Growth Promotants in Meat Animals</td>
</tr>
<tr>
<td>15</td>
<td>Final Examination</td>
</tr>
</tbody>
</table>

**Test Dates:**
- Major Examination A: Week 5
- Major Examination B: Week 10
- Final Examination: Week 15
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):
   Bush School of Government and Public Service
   Course
   BUSH 602-600 Writing for the Medal of Excellence

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

4. Catalog course description (not to exceed 50 words):
   Students will begin work on the ePortfolio, a required component for the Medal of Excellence. The course focuses on guided reflection about students' learning across interdisciplinary experiences, such as participation in the Leadership Program, capstone courses, internships, and other high-impact experiences and on writing clear, coherent, well-developed reflective essays.

5. Prerequisite(s):
   Admission into Bush Schools' Master of International Affairs, or Master of Public Service and Administration

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)

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)
   --- | --- | ---
   BUSH | 602 | MEDAL OF EXCELLENCE WRITING Le

   Approval recommended by:
   [Signature]
   12-17-15

   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

   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
Course Description and Prerequisites

Students will begin work on the ePortfolio, a required component for the Medal of Excellence. The course focuses on guided reflection about their learning across interdisciplinary experiences, such as participation in the Leadership Program, capstone courses, internships, and other high-impact experiences and on writing clear, coherent, well-developed reflective essays.

Upon completing the course, students will have submitted and received feedback on several of the required ePortfolio sections for the Medal of Excellence.

What is reflective writing?
Reflective writing prompts you to . . .
- Analyze your work (projects, experiences), mining for meaning
- Identify the pattern or bigger idea that emerges from your analysis, i.e., connecting the dots of your experiences
- Distinguish meaningful “dots” from irrelevant ones as they relate to the big idea
- Articulate the value of the big idea to solving a new problem or addressing a new context

What is a zero-credit (ZSCH) course?
Students enrolled in a ZSCH course are not billed for fees, and they register for the course along with their credit-bearing courses. However, ZSCH courses ARE noted on the student’s transcript, including the grade, but do not count toward a student’s GPA or progress toward the degree or full-time enrollment. In addition, dropped ZSCH courses stay on the student record and will be treated like other courses, with the appropriate grade assigned (Q, W, etc.).

This ePortfolio ZSCH course meets each week during the semester and requires work toward and assessment of ePortfolio units.

Prerequisites: Bush School student
Optional for students pursuing Medal of Excellence, class of 2016
Required for students pursuing Medal of Excellence, class of 2017

Learning Outcomes

In this course students will
1. Set up an ePortfolio organized by the learning outcomes established by his or her degree
program and the Medal of Excellence requirements.
2. Write clear and coherent reflections, documenting where, how, when learning has occurred and to what degree learning is transferrable to new contexts.
3. Apply best practices for online writing, including privacy levels for publication best suited for the career path he or she is pursuing.
4. Revise written work to demonstrate strong editing skills.

Instructor Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Cindy Raisor</th>
<th>Office hours</th>
<th>M-F (2-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone number</td>
<td>979-862-8835</td>
<td>Office location</td>
<td>1027 Allen</td>
</tr>
<tr>
<td>Email address</td>
<td><a href="mailto:c-raisor@tamu.edu">c-raisor@tamu.edu</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please use email to make appointments with me or to ask questions that can be answered briefly. Do not use email to request feedback from me on an assignments or to discuss grades. The best ways for me to help you with more complex issues such as these are via consultations one-on-one in my office (preferred), via phone, or via virtual appointment.

Resource Material

Bush School Writing Website at https://sites.google.com/site/bushschoolwriting/
 ePortfolio Guidelines at https://sites.google.com/site/busheportfolioguidelines/
Leadership Development Independent Leadership Plan

Assignments, Participation, and Grading Policies

While the major assignments include components of the ePortfolio, interim assignments include peer review and editing. Thus, you are expected to attend class and participate in all class activities.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Audience Profile Memo</td>
<td>20</td>
</tr>
<tr>
<td>2 Biography</td>
<td>20</td>
</tr>
<tr>
<td>3 Lifelong Learning Reflection</td>
<td>20</td>
</tr>
<tr>
<td>4 Project or High-Impact Experience Reflection</td>
<td>20</td>
</tr>
<tr>
<td>5 Participation and Peer Review</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Standard Letter Grading Scale
A = 90-100
B = 80-89
C = 70-79
D = 60-69
F = below 60

Grading Procedures
Each assignment will be evaluated using a rubric, a set of grading criteria, specific to the assignment
and will be returned within one week of the submission.

Attendance and Participation
You are expected to attend every class meeting and participate in class discussions and peer review sessions. If you miss class, you are responsible for all material covered and all assignments made. (I will provide you with handouts during office hours and will be happy to answer any questions you have about material you missed.) Please refer to http://student-rules.tamu.edu/rule07 for more information on university attendance policies.

• Submit all assignments on time (by 12 p.m. of the due date). Late submissions will be accepted without penalty only with proof of a university-excused absence. Assignments submitted without proof of university-excused absences will be penalized one letter grade for each day they are late. (Interviews, work, or any other reason for an unexcused absence does not excuse you from submitting work on time.)
• Submit any work missed (due to an excused absence) within two class days of your return to class. (Remember that it is your responsibility to inform me of your excused absence and any assignments you need to make up.) Also, no assignments will be accepted after the last class meeting without proof of a university-excused absence that includes the assignment deadline in question.
• Check all writing assignment resources as you prepare each assignment. These resources will include writing prompts, rubrics, and may include samples. CAUTION: Do NOT use the samples as templates! They are intended to help you understand the context for the assignment but NOT to serve a template for your work.
• Check over your work to insure it represents professional standards and attention to detail. Though I use a rubric for each assignment to provide feedback and determine a score, I may award or deduct points beyond the limit for each category, depending on the quality of work in question.
• Refrain from cell phone use and other distracting behavior. Please treat this course like a professional obligation. Use the same polite, respectful behavior with your peers and instructor that you will use in the professional world. Thus, please refrain from using your cell phone, including texting, using your personal computer, outside of what is needed for your developing your ePortfolio, and from engaging in other distracting activities. Last, arrive at class on time. Excessive absences and tardies are undeniably unprofessional.

Course Topics, Calendar of Activities, Major Assignment Due Dates

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Assignment</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Aug. 29</td>
<td>Requirements for the Medal of Excellence</td>
<td>Set up ePortfolio</td>
<td>Sept. 9</td>
</tr>
<tr>
<td>2 Sept. 5</td>
<td>Setting up Your ePortfolio-landing pages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Sept. 12</td>
<td>Knowing your audience</td>
<td>Audience profile memo</td>
<td>Sept. 30</td>
</tr>
<tr>
<td>4 Sept. 19</td>
<td>Memo writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Sept. 26</td>
<td>Peer review profile memo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Oct. 3</td>
<td>Developing and editing your biography</td>
<td>Biography</td>
<td>Oct. 14</td>
</tr>
<tr>
<td>7 Oct. 10</td>
<td>Peer review biography</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Oct. 17</td>
<td>Fine-tuning your virtual radar</td>
<td>Lifelong learning reflection</td>
<td></td>
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Academic Integrity
For additional information please visit: http://aggiehonor.tamu.edu

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

It is your responsibility to know the Aggie Honor Code and to understand what constitutes scholastic dishonesty and to avoid it all costs. Anything (homework, quizzes, daily work, papers, and exams) that appears to be a violation of the Aggie Honor Code will be reported to the Aggie Honor System Office. 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.
Course Description and Prerequisites

Students will begin work on the ePortfolio, a required component for the Medal of Excellence. The course focuses on guided reflection about their learning across interdisciplinary experiences, such as participation in the Leadership Program, capstone courses, internships, and other high-impact experiences and on writing clear, coherent, well-developed reflective essays.

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Prerequisites: Bush School student
Optional for students pursuing Medal of Excellence, class of 2016
Required for students pursuing Medal of Excellence, class of 2017

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<tr>
<td>Email address</td>
<td><a href="mailto:c-raisor@tamu.edu">c-raisor@tamu.edu</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please use email to make appointments with me or to ask questions that can be answered briefly. Do not use email to request feedback from me on assignments or to discuss grades. The best ways for me to help you with more complex issues such as these are via consultations one-on-one in my office (preferred), via phone, or via virtual appointment.

Resource Material

Bush School Writing Website at https://sites.google.com/site/bushschoolwriting/
ePortfolio Guidelines at https://sites.google.com/site/busheportfolio/guidelines/
Leadership Development Independent Leadership Plan

Assignments, Participation, and Grading Policies

While the major assignments include components of the ePortfolio, interim assignments include peer review and editing. Thus, you are expected to attend class and participate in all class activities.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience Profile Memo</td>
<td>20</td>
</tr>
<tr>
<td>Biography</td>
<td>20</td>
</tr>
<tr>
<td>Lifelong Learning Reflection</td>
<td>20</td>
</tr>
<tr>
<td>Project or High-Impact Experience Reflection</td>
<td>20</td>
</tr>
<tr>
<td>Participation and Peer Review</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Total 100</strong></td>
</tr>
</tbody>
</table>

Standard Letter Grading Scale
A = 90-100
B = 80-89
C = 70-79
D = 60-69
F = below 60

Grading Procedures
Each assignment will be evaluated using a rubric, a set of grading criteria, specific to the assignment and will be returned within one week of the submission.

Attendance and Participation
You are expected to attend every class meeting and participate in class discussions and peer review sessions. If you miss class, you are responsible for all material covered and all assignments made. (I
will provide you with handouts during office hours and will be happy to answer any questions you have about material you missed.) Please refer to http://student-rules.tamu.edu/rule07 for more information on university attendance policies.

- **Submit all assignments on time (by 12 p.m. of the due date).** Late submissions will be accepted without penalty only with proof of a university-excused absence. Assignments submitted without proof of university-excused absences will be penalized one letter grade for each day they are late. (Interviews, work, or any other reason for an unexcused absence does not excuse you from submitting work on time.)

- **Submit any work missed (due to an excused absence) within two class days of your return to class.** (Remember that it is your responsibility to inform me of your excused absence and any assignments you need to make up.) Also, no assignments will be accepted after the last class meeting without proof of a university-excused absence that includes the assignment deadline in question.

- **Check all writing assignment resources as you prepare each assignment.** These resources will include writing prompts, rubrics, and may include samples. CAUTION: Do NOT use the samples as templates! They are intended to help you understand the context for the assignment but NOT to serve a template for your work.

- **Check over your work to insure it represents professional standards and attention to detail.** Though I use a rubric for each assignment to provide feedback and determine a score, I may award or deduct points beyond the limit for each category, depending on the quality of work in question.

- **Refrain from cell phone use and other distracting behavior.** Please treat this course like a professional obligation. Use the same polite, respectful behavior with your peers and instructor that you will use in the professional world. Thus, please refrain from using your cell phone, including texting, using your personal computer, outside of what is needed for your developing your ePortfolio, and from engaging in other distracting activities. Last, arrive at class on time. Excessive absences and tardies are undeniably unprofessional.

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

<table>
<thead>
<tr>
<th>Week of</th>
<th>Topic</th>
<th>Assignment</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Aug. 29</td>
<td>Requirements for the Medal of Excellence</td>
<td>Set up ePortfolio</td>
<td>Sept. 9</td>
</tr>
<tr>
<td>2 Sept. 5</td>
<td>Setting up Your ePortfolio-landing pages</td>
<td>Audience profile memo</td>
<td>Sept. 30</td>
</tr>
<tr>
<td>3 Sept. 12</td>
<td>Knowing your audience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Sept. 19</td>
<td>Memo writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Sept. 26</td>
<td>Peer review profile memo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Oct. 3</td>
<td>Developing and editing your biography</td>
<td>Biography</td>
<td>Oct. 14</td>
</tr>
<tr>
<td>7 Oct. 10</td>
<td>Peer review biography</td>
<td>Lifelong learning reflection</td>
<td></td>
</tr>
<tr>
<td>8 Oct. 17</td>
<td>Fine-tuning your virtual radar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Oct. 24</td>
<td>Connecting learning to outcomes-scenarios</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Oct. 31</td>
<td>Developing and editing reflections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Nov. 7</td>
<td>Peer review lifelong learning reflection</td>
<td></td>
<td>Nov. 11</td>
</tr>
<tr>
<td>12 Nov. 14</td>
<td>Writing about courses and projects</td>
<td>Project or HIE reflection</td>
<td></td>
</tr>
<tr>
<td>13 Nov. 21</td>
<td>Writing about high-impact experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Nov. 28</td>
<td>Incorporating graphics and design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Dec. 5</td>
<td>Peer review final reflection</td>
<td></td>
<td>Dec. 9</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

Code of Ethics

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

It is your responsibility to know the Aggie Honor Code and to understand what constitutes scholastic dishonesty and to avoid it all costs. Anything (homework, quizzes, daily work, papers, and exams) that appears to be a violation of the Aggie Honor Code will be reported to the Aggie Honor System Office. 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.
Memorandum

To: Dr. Leonard Bright, Assistant Dean
From: Cindy Raisor, Lecturer
Date: December 7, 2015
Subject: Zero-Credit Course Proposal

I am writing to propose a zero-credit (ZSCH) course “Writing for the Medal of Excellence” to be offered beginning with the 2016-17 academic year to our Bush School students. A ZSCH course, meeting 1 hour per week, would add value to the Medal and would provide strategic writing instruction for our students.

Current Situation
Each Bush School student is strongly encouraged to prepare an ePortfolio, which documents what the student has learned through his or her degree program. Upon completion of an ePortfolio, a student gains the potential to earn a Medal of Excellence—an honor achieved by also fulfilling Leadership Certificate requirements. More than a showcase of writing samples, the ePortfolio prompts students to connect their learning across interdisciplinary experiences, such as participation in the Leadership Program, capstone courses, internships, etc. Students are guided through the process of reflecting about their experiences and are encouraged to target ePortfolio development with their intended careers in mind. Students choosing to create an ePortfolio have several opportunities to learn how to prepare one through workshops, online resources, and individual consultations with writing consultants.

While the workshops and consultations have been well attended, the quality of work reviewed varies among students. Thus, increasing quality control of student writing is an important goal for the course. In addition, students have expressed an interest in having more structure to developing the ePortfolio in a classroom setting. A survey completed by 90 of our current Bush School students indicates a strong interest in a detailed course, which would include submission deadlines, writing instruction, and frequent feedback on their work.

Proposed Changes
Medal of Excellence requirements would not change for 2017 graduates, but would include an optional 1-hour ZSCH course students could take during either the fall 2016 or the spring 2017 semester. (See completion checklist for current Medal requirements.) However, the 1-semester course would be required for 2018 graduates wanting to complete the Medal of Excellence.

Benefits
The Medal of Excellence (and ePortfolio) should remain an optional activity for all students; however, requiring a 1-hour ZSCH course for the Medal would have several benefits:

- A course would teach and reinforce writing skills that are transferrable to other contexts, both in academic and in workplace environments.
- Instructor feedback and peer review would increase quality control over the final product and the value of the Medal of Excellence.
- An ePortfolio targeting program-level learning outcomes would permit administrators to track learning outcomes and high-impact experiences for assessment purposes.
Learning Outcomes
In the ZSCH course students will
1. Create an ePortfolio organized by both his or her degree program’s learning outcomes and by the Medal of Excellence requirements.
2. Write clear and coherent reflections, documenting where, how, and when learning has occurred and to what degree learning is transferrable to new contexts.
3. Apply best practices for online writing, including the establishment of privacy levels best suited for his or her intended career path.
4. Revise written work to demonstrate strong editing skills.

Please let me know if you need additional information and/or if you have suggestions regarding the course logistics.

Cindy

Enclosures: New Course Form and Syllabus
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):  
Ecology and Evolutionary Biology Ph.D. Program (EEBL)  
EEBL 630 Big Bend National Park Natural History Survey  

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

4. Catalog course description (not to exceed 50 words):  
Advanced course taught in Big Bend National Park emphasizing biological, ecological, and natural history features of the Trans-Pecos ecoregion; detailed notes of the biology and geology of Big Bend based upon daily field trips will be recorded.  

5. Prerequisite(s):  
Graduate classification; Approval of instructors  
Cross-listed with:  
Stacked with:  
Geology 330  
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)  
NA  
b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)  
Ecology and Evolutionary Biology (EEBL)  

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  
EEBL  
Course #:  
630  
Title (excluding punctuation):  
Big Bend National Park  
Lect  Lab  Other  SCH  CRF and Fund Code  Admin. Unit  Acad Year  Grad Year  Course Code  Level 6  
0.00  0.00  2.00  2.00  2813100002  1050  17 - 18 0 0 3 6 3 2  

Approval recommended by:  
Spencer Behmer  
1-4-16  

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

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

Submitted to Coordinating Board by:  

Chair, GC or UCC  
Date  

Associate Director, Curricular Services  
Date  

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.  
Curricular Services – 07/14
EEBL 630
Big Bend National Park Natural History Survey

Instructors:
David E. Baumgardner, PhD
Senior Lecturer
Department of Biology
Texas A&M University
College Station, TX 77843-3258
e-mail: dbaumgardner@tamu.edu
979-845-4191 (phone), 979-845-2891 (fax)
Office Location: Biological Sciences Building East (BSBE), Room 325

Teaching Assistant:
TBD

Course Description, Summary and Prerequisites

Course Description:  
Big Bend National Park is part of the Trans-Pecos ecoregion, and is considered a semi-arid desert. August is part of the rainy season, which triggers many species of plants and animals to become active, and can result in a time of great biological activity. In addition, Big Bend is an exceptionally diverse region geologically, featuring an extinct volcanic caldera, tectonic features that reflect the assembly of the North American continent, and fossil deposits ranging from ancient marine reefs to river deposits containing dinosaur remains.

Students will experience the unique geology, landscape, flora, and fauna of the Chihuahan Desert, while gaining a greater understanding of the inter-related ecosystems of the Chihuahan Desert. Students will be expected to keep a daily journal of the various learning events experienced and submit a final document at the end of the course.

Course Summary: An advanced field course taught in Big Bend National Park emphasizing biological, ecological, and natural history features of the Trans-Pecos ecoregion. Detailed notes of the biology and geology of Big Bend based upon daily field trips throughout the park will be recorded by students.

Prerequisites: Approval of instructors.

Course Objectives and Learning Outcomes

Course Objectives.
- Learn about the culture, history, geography, flora, fauna, and ecology of Big Bend.
• Develop observational, natural history skills needed to record and document observations in a detailed field journal. These observations can include unique adaptations and diversity of the plants and animals of the tropics, and changes in structure and function between different ecosystems.

• Learn to interact effectively with fellow students and conduct field studies in a difficult and challenging environment.

Learning Outcomes. At the completion of the course, the student will:
• Have an increased understanding of the history, culture, and ecology of Big Bend National Park and its associated ecology.
• Be able to successfully document the diverse flora and fauna and adaptations of these organisms that allow them to exist in a semi-arid environment.
• Enhance scientific writing and observational skills through “hands on”, high impact teaching.

Required Textbooks
No textbook is required for course. However, the following are recommended reading if you wish to learn more about Big Bend National Park:


Grading Policies
The student's final grade will be based upon the following two criteria: (1) behavior, attitude, and participation in scheduled events; (2) daily field notes, reports, and discussions.

(1) Participation in Scheduled Events (10% / 10 Points). Students are expected to follow all instructions and directives of the course faculty and staff and to treat all members of the course and any other individuals with whom the students may interact with respect and professionalism. Violation of these standards may result in verbal or written counseling statements and/or loss of points towards final course grade. Each time a scheduled event is missed without approval from the instructor, the student will lose one percentage point from their final average, with a maximum loss of 10%.

(2) Daily Field Notes, Reports, and Discussions (40% / 40 Points). Students will be required to maintain an observational journal of the flora, fauna, community structure, biological adaptations, and any other ecological concepts which they find of interest or are discussed by the course instructors. A notebook and permanent ink pen will be provided. Sketches and reference to pictures may also be included. Students will be expected to record at least four observational
recordings per day based upon either formal, scheduled events or observations while in smaller, informal groups. Journals will be randomly reviewed by either the course director or teaching assistant and, if needed, feedback provided to improve the journal.

(3) **Post Return Discussions and Student Presentations (20%/20 Points).** Shortly after returning from the Big Bend trip (exact date TBD, but either just before the fall semester begins or very early in the fall semester), students will give an oral presentation to all other students in the course on a topic of their choice. The presentation should cover the topic in sufficient detail to explain a concept or phenomena they observed while in Big Bend. Oral presentations are expected to be 12-15 minutes in length.

Research proposal after they return. The proposal should have a clear rationale and a sound hypothesis. Students can use any background knowledge or interest they bring to the table.

**Additional requirement of graduate students**
This is a stacked course and the following is additional work required for graduate students.

**Research data or research paper (30% / 30 Points),** Graduate students will be expected to accomplish this additional criteria by one of two ways. First, for graduate students who will benefit from gathering data that directly supports their research. For these students, a 4-page (approximately 1,000 words), double-spaced accounting of how the data collected will be incorporated into their dissertation, to include details of research and how it benefited the student’s research. Second, for graduate students who have not yet started their research or gathering of data, these students will be expected to write a 4-page (approximately 1,000 words), double-spaced report detailing their observations and findings from their time in Big Bend as it applies to their possible dissertation research.

**Final Grades:** Final grades are determined as follows: A ≥ 90 points; B, 89 to 80 points; C, 79 to 70 points; D 69 to 60 points; F ≤ 59.

**IMPORTANT NOTE:** Administratively, this is considered a Fall course. Since the course will take place before the beginning of the fall semester, grades will not be formally assigned until the end of the fall semester.

**Attendance and Make-up Policy**

All students are expected to participate in all scheduled events, including lectures, and discussion of daily findings. An illness or injury that may prevent participation in a group activity must be reported to the course instructor who may then excuse participation in the activity without penalty with regard to grading criteria. Each time a scheduled event is missed without approval from the instructor, the student will lose one percentage point from their final average, with a maximum loss of 10%. Given the nature of the course, there will be no make-up of course activities. Late work will only be accepted without penalty if under University Excused Absence rules (http://student-rules.tamu.edu/rule07). We will grant extensions in situations not covered by university rules only in extenuating circumstances, and only if you contact us before the due date for the assignment.
Other Pertinent Course Information

Policy on Possession and/or Consumption of Alcoholic Beverages:
Possession or consumption of alcoholic beverages is strictly forbidden during the course for several reasons. First, many of the students in the course will not be of legal drinking age. Second, alcohol is a diuretic, which results in water loss to the body. Working in Big Bend in August is extremely stressful to the body due to the heat and lack of humidity, and results in extensive water loss to the body. Consumption of alcohol will only make the situation worse. Third, alcohol consumption can result in numerous social problems among students and create uncomfortable (and sometimes dangerous) situations.

Health Insurance:
All students are required to be covered under a health insurance policy and provide proof of this coverage when they complete the Health and Safety awareness form.

Safety:
Big Bend National Park is one of America’s most stunning parks, but also one of its most dangerous. Any student who is part of the course must realize and understand the risks, and how they are mitigated. Excessive heat and dehydration are the conditions that kill or injure many visitors to Big Bend each year, in particular during the months of July and August. Each morning, the instructors will brief the student’s on the activities for the day, safety concerns, and ensure everybody has proper clothing, water, and any other necessary items. Students MUST inform the instructors or teaching assistants at any time if they are feeling ill or have any health concerns or issues.

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, currently located in the Disability Services building at the Student Services at White Creek Complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Academic Integrity
THE HIGHEST ETHICAL STANDARDS ARE EXPECTED AT ALL TIMES FROM ALL STUDENTS. “An Aggie does not lie, cheat or steal, or tolerate those who do.” For additional information, please visit: http://student-rules.tamu.edu/aggiecode
# TENTATIVE COURSE SCHEDULE 2016
(SUBJECT TO CHANGE DUE TO WEATHER CONDITIONS OR PARK RESTRICTIONS).

<table>
<thead>
<tr>
<th>DAY</th>
<th>DATE</th>
<th>LOCATION</th>
<th>ACTIVITY</th>
<th>Contact Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>9-Aug-16</td>
<td>Butler Hall #004</td>
<td>Pre-departure Briefings, 1PM - 3PM.</td>
<td>2</td>
</tr>
<tr>
<td>Wednesday</td>
<td>10-Aug-16</td>
<td>Butler Hall #004</td>
<td>Pre-departure Briefings, 1PM - 3PM.</td>
<td>2</td>
</tr>
<tr>
<td>Saturday</td>
<td>13-Aug-16</td>
<td>Travel from College Station to Big Bend</td>
<td>Change in flora from east to west</td>
<td>4</td>
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<tr>
<td>Sunday</td>
<td>14-Aug-16</td>
<td>Rattlesnake Mountain (Fossil Hunt)</td>
<td>Paleocology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Santa Elena Canyon</td>
<td>Geography/Invasive Species</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cattail Falls</td>
<td>Flora and Fauna Adaptations</td>
<td>3</td>
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<tr>
<td>Monday</td>
<td>15-Aug-16</td>
<td>Boquillas Canyon</td>
<td>Geography</td>
<td>2</td>
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<tr>
<td></td>
<td></td>
<td>Hot Springs Hike</td>
<td>Paleocology; plant adaptations</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td>Mariscal Mine</td>
<td>History/Culture</td>
<td>3</td>
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<tr>
<td>Tuesday</td>
<td>16-Aug-16</td>
<td>The Window</td>
<td>Plant and animal adaptations</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lost Mine Trail (Caldera)</td>
<td>Geology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Night Hike</td>
<td>Animal Adaptations</td>
<td>3</td>
</tr>
<tr>
<td>Wednesday</td>
<td>17-Aug-16</td>
<td>Emory Peak</td>
<td>Flora and Fauna Endemism</td>
<td>10</td>
</tr>
<tr>
<td>Thursday</td>
<td>18-Aug-16</td>
<td>Rest, Refit, and Recuperation</td>
<td>NA</td>
<td>0</td>
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<tr>
<td></td>
<td></td>
<td>Fossil Bone Exhibit</td>
<td>Paleocology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Night Hike</td>
<td>Animal Adaptations</td>
<td>3</td>
</tr>
<tr>
<td>Friday</td>
<td>19-Aug-16</td>
<td>Glenn Spring</td>
<td>Plant and animal adaptations</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td>Juniper Canyon</td>
<td>Plant and animal adaptations</td>
<td>4</td>
</tr>
<tr>
<td>Saturday</td>
<td>20-Aug-16</td>
<td>Burrow Runoff</td>
<td>Animal Adaptations</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td>Ward Spring</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Sunday</td>
<td>21-Aug-16</td>
<td>Return trip to TAMU via Hwy 90</td>
<td>Plant adaptations</td>
<td>4</td>
</tr>
<tr>
<td>Wednesday</td>
<td>24-Aug-16</td>
<td>Butler Hall #004</td>
<td>Discussions, student presentations.</td>
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<tr>
<td>Thursday</td>
<td>25-Aug-16</td>
<td>Butler Hall #004</td>
<td>Discussions, student presentations.</td>
<td>3</td>
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</tbody>
</table>
Texas A&M University  
Departmental Request for a New Course  
Undergraduate • Graduate • Professional  
* Submit original form and attach a course syllabus.*

Form Instructions

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

2. Request submitted by (Department or Program Name):  
   Educational Administration & Human Resource Development (EAHR)

3. Course prefix, number and complete title of course:  
   EHRD 619: Conflict Management and Dialogue

4. Catalog course description (not to exceed 50 words):  
   Understand and practice of conflict management and dialogue; identify and learn  
   importance of effective conflict management in workplace; develop skills to effectively engage in meaningful conflict using effective  
   modalities; enhance negotiating preferences and its impact on self, workplace and careers.

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

6. Is this a variable credit course?  
   - [ ] Yes  
   - [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)

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)  
   --- | --- | ---  
   EHRD | 619 | CONFLICT MGMT & DIALOG

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>HSC Code</th>
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   Approval recommended by:  
   Khalil Dirani, program chair  
   Department Head or Program Chair (Type Name & Sign)  
   Date  
   Fredrick M. Nafukho, Dept. Head  
   Department Head or Program Chair (Type Name & Sign)  
   Date  
   Dean of College  
   Date  
   Chair, College Review Committee  
   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
MEMORANDUM

DATE: November 30, 2015

TO: Graduate Instruction Committee (GIC)

THROUGH: Fredrick M. Nafukho
Professor & Department Head

FROM: Khalil Dirani
Adult Education & Human Resource Development Program Chair

SUBJECT: New Course Request

In accordance with the College of Education and Human Development GIC Course Approval Guidelines (September 27, 2002), I am submitting the attached request for a new course.

**Brief Rationale:** This course is taught from a global and social justice perspective and creates the opportunity for graduate students to develop their conflict management and dialogue skills, to enhance their professional communication skill set and marketability. This course provides students with the state recommended 40-hour mediation course which entitles them to a certificate to mediate. Upon completion of this course, students will receive recognition from the TAMU Vice President for Diversity Office.

**Proposed Title/Description:** EHRD 619, Conflict Management and Dialogue: Understand and practice of conflict management and dialogue; identify and learn importance of effective conflict management in workplace; develop skills to effectively engage in meaningful conflict using effective modalities; enhance negotiating preferences and its impact on self, workplace and careers.

**Summary of Resources:** No additional resources will be necessary to teach this course.

**Results of Vote Approval:**
- Program Faculty: Yes: 7 No: 0
- Executive Committee: Yes: 8 No: 0
**EHRD 619: Conflict Management and Dialogue**  
Dept. of Educational Administration and Human Resource Development  
Fall, 2017

Instructor: Dr. Nancy Watson  
Office: Williams Bldg Ste 201/Harrington 551  
Office Hours: By appointment  
Phone: 979.458.2905 or 979.224.3638  
Email: n.watson@tamu.edu

Class Meeting: TBA  
Class Location: TBA

**COURSE DESCRIPTION**  
Understand and practice of conflict management and dialogue; identify and learn importance of effective conflict management in workplace; develop skills to effectively engage in meaningful conflict using effective modalities; enhance negotiating preferences and its impact on self, workplace and careers.

Prerequisite: Graduate classification

**LEARNING OUTCOMES**  
Upon successful completion of this course, students will be able to:  
1. Describe the variables that accompany change in the workplace  
2. Explain of the importance of engaging in meaningful conflict on individual, organization, and workplace productivity  
3. Effectively engage in the seven stages of the mediation process  
4. Explain the role of diversity in conflict and conflict management  
5. Analyze issues and problems from a diverse and global perspective  
6. Develop and demonstrate the interpersonal skills for effectively working with a ‘class conflict management team (~4 students/team)  
7. Acquire the State Bar of Texas Alternative Dispute Resolution Section 40-hour Basic Mediation Training Certificate  
8. Explain the application of course skills learned to one’s current and future career/profession

**REQUIRED READINGS**  

**ADDITIONAL ASSIGNED READINGS**  
STATEMENT REGARDING CLASS HANDOUTS
The handouts 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.

ABSENCE/MAKE-UP WORK/LATE WORK POLICY
Students are expected to attend all classes. There will be no late work and/or make-up assignments accepted/assigned without a university-approved and documented excuse. Absences may only be excused as defined by the Texas A&M University Student Rules available at http://student-rules.tamu.edu/rule07. Students should inform Dr. Watson as soon as she/he knows an assignment will be or has been missed. Students have one week from the date(s) of missed assignment(s) to inform Dr. Watson of the need to makeup the assignment(s); failure to do so will result in the student’s inability to make up the assignment(s).

COURSE ASSIGNMENTS

<table>
<thead>
<tr>
<th>Final course grade will be determined by:</th>
<th>Points possible</th>
<th>Blooms’ Taxonomy Tested</th>
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<tbody>
<tr>
<td>Case Study (CS) – Each student will be required to complete one Conflict Case Study. The case study should be a relevant workplace, school based, or home based conflict. A sample case study can be found in Module 1 (1 @ 5 points)</td>
<td>5 points</td>
<td>Understanding, Applying, Analyzing, and Creating</td>
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<tr>
<td>Class Reflection Journal (CRJ) - Each student will be required to keep a weekly course journal (a ‘private reflection journal’ from which they can integrate their ideas into the ‘public’ class discussion) to be electronically submitted to the professor 5 times during the semester (see calendar) (5 @ 5 points = 25 points)</td>
<td>25 points</td>
<td>Remembering, Understanding, Applying, Analyzing, Evaluating, Creating</td>
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<tr>
<td>Minimally your weekly journal should include: (1) your reflections of the course, (2) application of the course to both your professional and out of class life, and (3) the contribution you are making to class (CC). Class contribution (CC) - Each student is expected to actively participate in class, group discussions, and mediation case studies under the guidance of the course instructor.</td>
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<tr>
<td>Task</td>
<td>Points</td>
<td>Competencies</td>
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| **Midterm Skill Set (MSS)** - Demonstrate proficiency in the Conflict Management Process and Skills using mediation as the intervention method  
  - Roles and Roles  
  - Gathering Narratives  
  - Identifying Issues, and  
  - Supporting parties in sharing Thoughts and Feelings  
  (1 @ 10 points)                                                | 10 points | Remembering, Understanding, Applying, Analyzing, Evaluating, Creating |
| **Skill Sets Assignment (SSA)** - Each individual is required to conduct a 10-minute lesson on one chosen conflict management/dialogue skill sets. You will create an 11x14 poster of your skill set. Students will share any materials with classmates and Dr. Watson. The posters will be class archives.  
  (1 poster and presentation @ 10 points = 10 points)            | 10 points | Understanding, Applying, Analyzing, Creating                                   |
| **Conflict Paper and Presentation (CPP)** - Each student will be required to identify a conflict management topic and write a 5 page paper on a conflict management topic and present topic  
  Components: topic, rationale for choosing topic, application to current and/or future career/profession, minimum of 5 current references (2005 or later), value and/or importance of topic to classmates  
  (1 @ 30 pts)                                                  | 30 points (20 points: paper and 10 pts presentation) | Applying, Analyzing, Creating, Evaluating                              |
| **Final Examination Course Knowledge Assessment (F/KA)** - A final examination related to demonstrating:  
  - acquisition of the course learning outcomes and  
  - proficiency in the mediation process will be completed at the end of the semester  
  Proficiency in Mediation Process – Roles and Roles, gathering Narratives, Identifying Issues, and supporting parties in sharing Thoughts and Feelings, support parties in moving forward by parties Generating Options, facilitating the generation of a MOU, and mediation Closure  
  - submission of Mediator Competencies Self Reflections         | 20 points | Applying, Creating, Analyzing, Evaluating                                    |
<table>
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<tr>
<th>(one per mediation case participated in/observed)</th>
<th>Self evaluation and Peer evaluation (from team members)</th>
<th>1 @ 20 points</th>
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<tr>
<td>Total Points</td>
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<td>100 points</td>
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</table>

**Grading Scale**

A = 90-100 points  B = 89-90 points  C = 70-79 points  D = 60-69 points  F = Below 60

**GRADING**

Grading of assignments will be based on students meeting the basic requirements specified in the syllabus. Simply meeting the basic requirements of the assignments will be considered average and the number of points earned will reflect the average quality of the work. Additional points may be earned based on writing style (i.e., grammar, spelling, clarity of ideas) and the ability to elaborate on and synthesize information; points will be deducted for using inaccurate conflict management vocabulary. All assignments turned in should be original work (no assignments from other classes are to be submitted).

**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, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu).

**FACULTY SENATE STATEMENT ON PLAGIARISM AND AGGIE HONOR CODE**

Scholastic misconduct is defined broadly as “any act that violates the rights of another student in academic work or that involves misrepresentation of your own work.” The handouts used in this course are copyrighted. By “handouts” I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission. 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. Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one’s work, should the instructor request it, is sufficient grounds to initiate an academic dishonesty case.

“An Aggie does not lie, cheat, or steal nor 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 and integrity, characteristics that Aggies have always exemplified. The Aggie Code of Honor functions as a symbol to all Aggies, promoting understanding and loyalty to truth and confidence in each other. If you have any questions regarding
plagiarism, please consult the latest issue of the Texas A&M University Student Rules, Part 1, Section 20 which can be found online at [http://student-rules.tamu.edu](http://student-rules.tamu.edu). Any suspected instances of scholastic dishonesty will be investigated and resolved according to the procedures outlined in the Aggie Honor System ([http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)).

**HARASSMENT**

Texas A&M University is committed to the fundamental principles of academic freedom, equality of opportunity and human dignity. To fulfill its multiple missions as an institution of higher learning, Texas A&M encourages a climate that values and nurtures collegiality, diversity, pluralism and the uniqueness of the individual within our state, nation and world. All decisions and actions involving students and employees should be based on applicable law and individual merit. Texas A&M University, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units. Students should contact the Office of the Dean of Student Life at 845-3113, or visit student rules at [http://rules.tamu.edu/urules/300/340199ml.htm](http://rules.tamu.edu/urules/300/340199ml.htm) for more detail information to file a sexual harassment complaint. You may also contact the College of Education and Human Development at 979-845-5311.

**COURSE SCHEDULE**

<table>
<thead>
<tr>
<th>Class</th>
<th>Topics</th>
<th>Reading (prior to class; in ecampus)</th>
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<tbody>
<tr>
<td><strong>Week 1</strong>&lt;br&gt;<strong>Change in the Workplace</strong></td>
<td>Syllabus&lt;br&gt;Terms&lt;br&gt;Change and Conflict and Conflict and Diversity&lt;br&gt;Effective communication in a diverse organization&lt;br&gt;Dialogue variables&lt;br&gt;Assign to teams&lt;br&gt;Sign up for Skill Set Assignment Presentation Date&lt;br&gt;Sign up for Conflict Presentation Date</td>
<td>BMT pp. 1-6&lt;br&gt;CM pp. 1-6&lt;br&gt;DDP pp. 1-6&lt;br&gt;Handouts (H0)/Powerpoint Slides (ppt) in Week 1 (W1)</td>
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<tr>
<td><strong>Week 2</strong>&lt;br&gt;<strong>Conflict Mediate</strong></td>
<td>Importance of Managing Conflict&lt;br&gt;Thomas-Kilmann Conflict Mode Instrument&lt;br&gt;Conflict Escalation (CM p. 15)&lt;br&gt;Unresolved Conflicts&lt;br&gt;Choosing an Intervention Approach&lt;br&gt;Alternative Dispute Resolution&lt;br&gt;Mediate and Reflect</td>
<td>BMT pp. 9-21&lt;br&gt;CM pp. 7-10, 13-14, and 18-21&lt;br&gt;Algert &amp; Stanley, 2007 (4)&lt;br&gt;HO/ppt in W2&lt;br&gt;Mediation video</td>
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<tr>
<td><strong>Week 3</strong>&lt;br&gt;<strong>Mediation Mediate and Reflect</strong></td>
<td>What Necessitates a Mediation Process?&lt;br&gt;Principles of Mediation&lt;br&gt;Ethical Guidelines for Mediators&lt;br&gt;Mediate and Reflect</td>
<td>BMT pp. 23-30&lt;br&gt;Algert &amp; Froyd, 2002 (3)&lt;br&gt;HO/ppt in W3</td>
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<td><strong>Week 4</strong>&lt;br&gt;<strong>The Mediation Process</strong></td>
<td>Mediation Process Outline&lt;br&gt;Goals in the Mediation Process</td>
<td>Handout – Goals of Mediation Steps&lt;br&gt;HO/ppt in W4</td>
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<tr>
<td><strong>Week 5</strong>&lt;br&gt;<strong>The Mediation Toolkit Mediate and Reflect</strong></td>
<td>Mediation Process Scripts&lt;br&gt;Example of Co-Mediator Teamwork&lt;br&gt;Mediation Checklist&lt;br&gt;Mediate and Reflect</td>
<td>BMT 38-50&lt;br&gt;HO/ppt in W5</td>
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<td>Week 6</td>
<td>Conflict Management Skill Set Presentations Mediate and Reflect</td>
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<td>Active Listening</td>
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<td>Positions vs Interests/Needs</td>
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<td>I-Statements</td>
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<td></td>
<td>Mediate and Reflect</td>
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<td>Listening Do’s &amp; Don’ts, Listening for Feelings, and Feelings Vocabulary (2 people) Neutrality: Phrases, Questions, &amp; Examples Mediate and Reflect</td>
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<td>BMT pp. 51-53 and 54-55 HO/ppt in W6</td>
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<td>Week 7</td>
<td>Conflict Management Skill Set Presentations Mediate and Reflect</td>
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<td>Mediate and Reflect</td>
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<td>HO/ppt in W7</td>
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<td>Week 8</td>
<td>Guest Speakers</td>
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<td>Mediate and Reflect</td>
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<td>HO/ppt in W8 AWS Model</td>
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<td>Week 9</td>
<td>Conflict Management Skill Set Presentations Mediate and Reflect</td>
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<td>Assertiveness</td>
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<td>Mindfulness&amp;Managing Stress</td>
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<td>Anger&amp;Other Strong Emotions Mediate with AWS Model and Reflect</td>
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<td>BMT pp. 65-66, 68-71 HO/ppt in W9</td>
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<td>Week 10</td>
<td>Conflict Paper Presentations Mediate and Reflect</td>
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<td>Interventions</td>
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<td>Nature of Conflicts</td>
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<td>Multidimensionality of Conflict Mediate (traditional or AWS) and Reflect</td>
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<td>CM pp. 11-12, 17 HO/ppt in W10</td>
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<td>Week 11</td>
<td>Conflict Paper Presentations Conflict Modes Grid Mediate and Reflect</td>
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<td>Conflict Modes Grid Choosing Your Conflict Management Style Mediate (traditional or AWS) and Reflect – Fish Bowl</td>
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<td>HO/ppt in W11</td>
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<td>Week 12</td>
<td>Conflict Management Skill Set Presentations Mediate and Reflect</td>
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<td>Change</td>
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<td>Mental Models</td>
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<td></td>
<td>Workplace and Diversity and Conflict Knowing your Intervention Goals Body Language Creative Problem Solving Problems with Mediators and Disputants</td>
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<td>DDP pp. 19-29 Schmidt, 2010 (1) HO/ppt in W12</td>
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<tr>
<td>Week 13</td>
<td>Facilitating Dialogues</td>
<td>Conflict Escalation</td>
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<td>Conflict Paper</td>
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<td>Presentations</td>
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<td>Mediate and</td>
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<td>Reflect</td>
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<tr>
<td>Week 14</td>
<td>BMC Certificate and DDP Recognition</td>
<td>Course Debrief using <em>The Dialogue Circle</em></td>
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</tbody>
</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus.*

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

2. Request submitted by (Department or Program Name):  
   Dwight Look College of Engineering

3. Course prefix, number and complete title of course:  
   ENGR 630 - Fundamentals of Subsea Engineering

4. Catalog course description (not to exceed 50 words):
   Orientation to subsea engineering fundamentals, including SURF (Subsea, Umbilicals/Controls, Risers, Flowlines) equipment and configurations; exposure to practical, industry focused problems; subsea equipment components; design considerations and design drivers; subsea production operations; integrity critical maintenance activities.

5. Prerequisite(s):
   Restriction – graduate classification, Enrolled in Dwight Look College of Engineering or approval of instructor
   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.

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

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

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

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

12. M. Eng. in Engineering

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

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

15. Approval recommended by:
   Dr. John Hurtado  11/16/15

16. Chair, College Review Committee  Date
   Dean of College  Date

17. 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
ENGR 630: Fundamentals of Subsea Engineering

Instructor: Mr. Grayum L. Davis
Telephone: (832) 368-7113
Email: g13@tamu.edu
Location: Engineering Activities Building C
Hours: TBA

Course Description:
This course provides a thorough orientation to subsea engineering fundamentals, covering the full suite of SURF (Subsea, Umbilicals/Controls, Risers, Flowlines) equipment and configurations. The course is targeted toward students that desire to further their subsea engineering education or are interested in broadening their skills into the multidisciplinary subsea engineering field. The course is intended to provide exposure to practical, industry focused problems, and will be taught by industry experienced experts. Topics covered will include subsea equipment components, design considerations and design drivers, subsea production operations, and integrity critical maintenance activities.

Prerequisites:
A high level of familiarity and competence in the following areas is strongly recommended: 1) materials, 2) Fluid mechanics, 3) Heat transfer, 4) Structures, 5) Electrical circuits/controls.

Overall Course Learning Outcomes
Upon completion of this course, students will be able to:
1. Describe functional requirements of common SURF (Subsea, Umbilicals, Risers, Flowlines) hardware components and configurations.
2. Describe design considerations, troubleshoot subsea control system components
3. Demonstrate a basic understanding of the types of reservoirs, and how reservoir modelling uncertainties impact subsea field architecture.
4. Demonstrate understanding of design drivers for subsea equipment, subsea systems, and interfaces using actual subsea field design data.
5. Demonstrate familiarity with the scope of the various API SC 17 Recommended Practices.
6. Apply design philosophies to new subsea configurations, evaluate options and summarize design considerations for recommended configuration.
7. Demonstrate familiarity with typical subsea materials, corrosion management, seals, and requirements per industry standards
8. Exercise and demonstrate sound and practical engineering judgments involving complex design tradeoffs presented in reality based scenarios, also demonstrate communication skills.
9. Describe and evaluate typical subsea production operations, maintenance activities, and integrity-critical testing and surveillance.
Getting Started
To get started within this course, you will need to:

- Review the syllabus in its entirety
- Login to the course website, eCampus (see directions below), to:
  - ensure that you have access and the correct plug-ins installed (ie. Blackboard Collaborate Plug-In),
  - update your user profile,
  - spend some time becoming familiar with the course layout, and
  - complete the introductory forum.

Note: Additional details to complete these activities can be found within the eCampus.

Resource Materials & Course Technology
Required Textbook and Resource Materials:
The required materials for ENGR 689 can be accessed on the TAMU Course Reserves via eCampus. You will be able to access the readings and save the documents associated with the course from the TAMU Course Reserves.

- Dataset from an existing subsea producing field.
- Additional lecture materials and readings will be provided within the course modules on eCampus.

eCampus:
This course will use the TAMU eCampus, powered by Blackboard Learn, as the virtual classroom. Within eCampus, you can find all course related content and assessments (including but not limited to course materials, content, videos, activities, assessments, etc.). The recommended browsers for eCampus access are Mozilla Firefox or Google Chrome (Internet Explorer is not recommended). For additional information on support browsers for eCampus, please visit http://tx.ag/eCampusBrowserSupport.

To login to eCampus:
- Go to http://ecampus.tamu.edu
- Click the Login button
- Use your TAMU NetID and password to login

Once logged into eCampus, you will see a list of all courses for which you are enrolled in for the semester. To navigate to this course, click on the name of the course. If you have any problems logging into the course, please see the technology support section below.

To navigate the course with eCampus, use the menu on the left side of the browser window. The syllabus and course introductory materials can be found within the “Getting Started & Syllabus” section of the course menu. The weekly modules will be available live and recorded within the “Module Materials” section of the course website. All assessments (ie. assignments and discussions) to be completed as part of the course can be found with the course menu on the left. Each assessment contains a description of the content that you should have learned prior to completing the assessment. Grades for the course can be access by clicking on “My Grades”. The link to the weekly Tuesday 7-8pm sessions, can be found in “Module Materials” folder. If you have any questions about navigating eCampus, please contact the instructor.

Technology Requirements & Recommendations:
Technology Requirements:
- Reliable and frequent access to a computer and to the high-speed Internet. If you do not have frequent and reliable access to a computer with Internet connection, please contact the instructor to discuss your situation and determine an appropriate solution.
- To attend virtual office hours, students will need to make sure they have setup Blackboard Collaborate to run on their computer(s) and mobile devices. Please visit http://blackboard.force.com/publickarticleview?id=kA770000000CbIW to check your system requirements and test your connection.
  - It is required to have a microphone and webcam when using Bb Collaborate. While many students use a built in webcam, it is recommended to have a headset with a microphone, such as a smart phone headset, for the virtual office hours and group collaboration.
Course Support
In addition to contacting the instructor or graduate assistant for course content related questions, there are a variety of campus resources for course support.

Academic Services Support:
The Office of Graduate & Professional Studies (OGAPS) offers graduate student services and advocates for graduate education for Texas A&M students who are both on-campus and at a distance. For additional information regarding OGAPS, visit: http://ogaps.tamu.edu/Home

Technology Support:
For technological issues related to eCampus and software, contact the TAMU Help Desk:

- Student eCampus Help Website, http://ecampus.tamu.edu/student-help.php
- TAMU IT Help Desk:
  - Website: http://hdc.tamu.edu/index.php (Online Chat is available)
  - Phone: (979) 845-8300
  - Email: helpdesk@tamu.edu

The TAMU Help Desk is open 24 hours a day 7 days a week. If your technical problems are unable to be resolved within 48 hours, please contact the instructor for additional assistance.

*Technology issues are not an excuse for missing a course requirement – make sure your computer is configured correctly and address issues well in advance of deadlines.*

Course Assignments
This course is designed to provide an interactive and collaborative environment that fosters the development of engineering. Participation in all activities in considered essential to this development. All specific instructions for each assessment are provided in eCampus.

<table>
<thead>
<tr>
<th>Assessments</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Weekly Scenarios Assignments</td>
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<tr>
<td>2 Quizzes</td>
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<td>Midterm Exam</td>
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<td>Final Exam</td>
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<tr>
<td>Final Project</td>
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Determination of Final Grades within the Course

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<tr>
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<td>B</td>
<td>89.99%-80.00%</td>
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<tr>
<td>C</td>
<td>79.99%-70.00%</td>
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<tr>
<td>D</td>
<td>69.99%-60.00%</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60.00%</td>
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</table>
## Course Outline

### Module 1: Introduction and Overview

**Module 1.1: Subsea Engineering Overview; Geology Overview; Reservoir Overview**

- Watch: Introduction to Subsea Engineering Part 1, 2 and 3 Videos
- Watch: Geology Overview Video
- Participate: Synchronous Weekly Class Meeting
- Post: Introduce Yourselves Forum
- Solve: Scenario 1

### Module 1.2: Subsea Well Construction Overview

- Watch: Drilling Basics Part 1 Video
- Interact: Basic Drilling Process / Prepared by Cameron & One Subsea
- Watch: Drilling Basics Part 2 Video
- Interact: Well Heads / Prepared by Cameron & One Subsea
- Watch: Drilling Basics Part 3 & 4 Videos
- Participate: Synchronous Weekly Class Meeting
- Solve: Scenario 2

### Module 2: Subsea Field Architecture

- Read: Subsea Field Architecture
- Read: API 17A - Design and Operation of Subsea Production Systems
- Read: API 17TR13 - General Overview of Subsea Production Systems
- Supplemental: Subsea Engineering Handbook - Part I Subsea Production Systems, Chapters 1 & 2
- Interact: Introduction to Subsea Production Systems / Prepared by Cameron & One Subsea
- Watch: Subsea Field Development Planning Parts 1 - 4 Videos
- Participate: Synchronous Weekly Class Meeting
- Solve: Scenario 3
- Answer: Quiz 1

### Module 3: Deepwater Riser Design

- Read: OMAE2014-24240 from the Proceedings of the ASME 2014 33rd International Conference on...
- Read: Deepwater Riser Design, Fatigue Life and Standards Study Report; TA&R Project Number 572...
- Read: Drilling Riser Management In Deepwater Environments, Madhu Hariharan, Ricky Thethi, 2H...
- Supplemental: API 17A Annex A A.10, A.11
- Supplemental: SHE - Part IV Subsea Umbilicals, Risers, and Flow lines Chapters 25, 26
- Supplemental: OTC 23161 - Subsea Well Intervention Vessel and Systems
- Watch: Risers Part 1-5 Videos
- Watch: Subsea E&A Subsea Landing String Assembly Video
- Participate: Synchronous Weekly Class Meeting
- Solve: Scenario 4

### Module 4: Flow Assurance and Operability

- Read: Flow Assurance Considerations in Subsea Production Systems
- Read: World Oil Recommended Practices for Hydrate Control and Remediation, Steven Cochran
- Supplemental: Subsea Engineering Handbook – Part II Flow Assurance and Sys Eng, Chapters 12-18
- Watch: Flow Assurance Parts 1 - 9 Videos
- Participate: Synchronous Weekly Class Meeting
- Solve: Scenario 5
<table>
<thead>
<tr>
<th>Module 5: Deepwater Pipeline Design</th>
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</thead>
<tbody>
<tr>
<td><strong>Watch:</strong> Pipeline Design Parts 1 - 4 Videos</td>
</tr>
<tr>
<td><strong>Read:</strong> SEH – Part IV Subsea Umbilicals, Risers, and Flowlines Chapter 27 Subsea Pipelines</td>
</tr>
<tr>
<td><strong>Read:</strong> Red Hawk project drawings – included in eCampus</td>
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<tr>
<td><strong>Supplemental:</strong> S.K. Rich, A.G. Alleyne, System Design for Buried, High Temperature and Pressure Pipelines</td>
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<tr>
<td><strong>Watch:</strong> SAGE Profile 3D - Subsea Pipeline Analysis Software Video</td>
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<tr>
<td><strong>Watch:</strong> J Lay Virtual Tour Video</td>
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<tr>
<td><strong>Supplemental:</strong> Popular Videos - Ormen Lange</td>
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<tr>
<td><strong>Watch:</strong> Ultimate Engineering: Super Pipeline Construction of Ormen Lange Natural Gas Pipeline Video</td>
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<tr>
<td><strong>Participate:</strong> Synchronous Weekly Class Meeting</td>
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<td><strong>Solve:</strong> Scenario 6</td>
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<tr>
<th>Module 6: Subsea Equipment: Components and Design Considerations I</th>
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<tr>
<td><strong>Read:</strong> API 17TR13 Sections 1 – 7, 14</td>
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<td><strong>Read:</strong> RP 17A Annex A A.4</td>
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<tr>
<td><strong>Read:</strong> Subsea Solutions Oilfield Review Article, Winter 2000, Schlumberger</td>
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<td><strong>Supplemental:</strong> SEH – Pt. I Subsea Prod Sys, Ch. 11 Subsea Equip RBI; Pt. III Subsea Struct and Equip, Ch. 19 - 23</td>
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<td><strong>Interact:</strong> Subsea Trees 1 &amp; 2 / Prepared by Cameron &amp; One Subsea</td>
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<td><strong>Participate:</strong> Synchronous Weekly Class Meeting</td>
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<td><strong>Supplemental:</strong> SEH - Part I Subsea Production Systems, Chapter 11 Subsea Equipment RBI; Part III</td>
</tr>
<tr>
<td><strong>Supplemental:</strong> Subsea Structures and Equipment, Chapters 19 - 23</td>
</tr>
<tr>
<td><strong>Interact:</strong> Subsea Mainfolds / Prepared by Cameron &amp; One Subsea</td>
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<tr>
<td><strong>Interact:</strong> Connectors and Well/Flowline Tie-in Jumpers / Prepared by Cameron &amp; One Subsea</td>
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<tr>
<td><strong>Watch:</strong> ROV Orientation Video</td>
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<td><strong>Participate:</strong> Synchronous Weekly Class Meeting</td>
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<tr>
<td><strong>Solve:</strong> Scenario 8</td>
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| Assessment: Mid-term Exam |

<table>
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<tr>
<th>Module 8: Subsea Materials</th>
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<tbody>
<tr>
<td><strong>Read:</strong> API 17TR13 Section 11</td>
</tr>
<tr>
<td><strong>Supplemental:</strong> SEH - Part I Subsea Production Systems, Chapter 11 Subsea Equipment RBI; Part III</td>
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<tr>
<td><strong>Supplemental:</strong> Subsea Structures and Equipment, Chapters 19 - 23</td>
</tr>
<tr>
<td><strong>Interact:</strong> Subsea Mainfolds / Prepared by Cameron &amp; One Subsea</td>
</tr>
<tr>
<td><strong>Interact:</strong> Connectors and Well/Flowline Tie-in Jumpers / Prepared by Cameron &amp; One Subsea</td>
</tr>
<tr>
<td><strong>Watch:</strong> Subsea Materials Parts 1 &amp; 2 Video</td>
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<tr>
<td><strong>Participate:</strong> Synchronous Weekly Class Meeting</td>
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<td><strong>Solve:</strong> Scenario 9</td>
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<thead>
<tr>
<th>Module 9: Subsea Controls, Umbilicals, Distribution System Part I</th>
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<tbody>
<tr>
<td><strong>Read:</strong> API 17A A.8, A.9 &amp; ISO 1219-1:2012</td>
</tr>
<tr>
<td><strong>Supplemental:</strong> API 17 E Umbilicals, API 17 F Controls &amp; API 17 V Safety Systems</td>
</tr>
<tr>
<td><strong>Watch:</strong> Subsea Controls Parts 1, 2 and 3 Videos</td>
</tr>
</tbody>
</table>
### Module 10: Subsea Controls, Umbilicals, Distribution System Part II
- **Read:** API 17A A.8, A.9 & ISO 1219-1:2012
- **Supplemental:** API 17 E Umbilicals, API 17 F Controls, API 17 V Safety Systems
- **SHE - Pt. I Subsea Prod Systems, Ch. 3,7,8; Pt. IV Umbilicals, Risers, and Flowlines, Ch. 24 Subsea Umbilical Systems**
- **Interact:** Subsea Distribution Assemblies / Prepared by Cameron & One Subsea
- **Interact:** Hydraulic Flying Leads / Prepared by Cameron & One Subsea
- **Interact:** Stab Plates / Prepared by Cameron & One Subsea
- **Interact:** Topside Umbilical Termination Assembly / Prepared by Cameron & One Subsea
- **Interact:** Subsea Instrumentation / Prepared by Cameron & One Subsea
- **Watch:** Subsea Controls Parts 1, 2 and 3 Videos
- **Participate:** Synchronous Weekly Class Meeting
- **Solve:** Scenario 10

### Module 11: Subsea Operations
- **Read:** SEH – Pt. I Subsea Production Systems, Chapters 5, 9, 10
- **Watch:** Subsea Control System Operations Modules (Lucas)
- **Watch:** Subsea Modes of Operation
- **Watch:** Subsea Maintenance Operations
- **Watch:** Subsea operations – Third Party Devices
- **Watch:** Subsea Control System Diagnostics
- **Watch:** Subsea Production Surveillance
- **Interact:** Master Control / Prepared by Cameron & One Subsea
- **Interact:** Hydraulic Power Unit / Prepared by Cameron & One Subsea
- **Supplemental Interaction:** Electrical Power Unit / Prepared by Cameron & One Subsea
- **Participate:** Synchronous Weekly Class Meeting
- **Solve:** Scenario 11
- **Answer:** Quiz 2

### Module 12: Overview of the Class Project and Final Exam
- **Participate:** Project Overview and Final Exam Review

### Module 13: Class Project and Final Exam
- **Read:** Final Project Instructions and Supporting Files
- **Submit:** Final Project
- **Assessment:** Final Exam
Course Policies

Attendance Policy:
The University views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused or unexcused absences are located online on the TAMU website. All students are required to attend the Tuesday Blackboard Collaborate sessions from 7-8pm online. http://student-rules.tamu.edu/rule07

Late Work Policy:
LATE WORK is not accepted unless student has university approved excuse. This course relies on discussion, interaction, and group work among class members. Therefore, it is essential that work be completed on schedule. At the beginning of every module, you should spend time planning. Read the learning modules in eCampus very carefully. Please do not wait until the last day to do the work. Punctuality is especially important when assignments impact your classmates. If your schedule impacts others, notify them and me and make alternative arrangements. Obviously unforeseen events arise and may prevent you from accomplishing a task on time. This may result in the deduction of a point or two from your grade, but if this is a rare occurrence and your work for this class it otherwise excellent, it should make no difference in your final grade for the course. It is only when work is frequently late and/or quality of the work is consistently below standard that your final grade will suffer. In those rare circumstances where an emergency takes you away from the course for an extended period of time, contact your instructor right away to make arrangements. http://student-rules.tamu.edu/rule07

Grades of “INCOMPLETE” will be given only for certifiable medical reasons or in other extraordinary circumstances arranged in advance. If you are planning to be away from your usual location (travel, vacation, etc.) during this course, consider dropping the course or discuss your situation with me and we can see if you will be disadvantaged by your mobility or impacting others’ work.

Course Copyright Statement:
The materials used within this course are copyrighted. These materials include, but are not limited to, the syllabi, quizzes, exams, lab problems, online handouts, course videos, etc. Because these materials are copyrights, you do not have the right to copy or distribute these materials, unless permission is expressly granted.

Incomplete Grade:
Grades of “INCOMPLETE” will be given only for certifiable medical reasons or in other extraordinary circumstances arranged in advance. If you are planning to be away from your usual location (travel, vacation, etc.) during this course, consider dropping the course or discuss your situation with me and we can see if you will be disadvantaged by your mobility or impacting others’ work.

Communication Expectations:
The best way to contact the instructor and graduate assistant for this course is via email (see contact information at the top of the syllabus). Students should expect a response from the instructor or graduate assistant no later than 48 hours after an email is sent or voicemail is left.

Course assignments, projects, and other assessments will be graded no later than 7 days after the due dates posted within the syllabus and eCampus calendar. If dates need to be adjusted based on unforeseen circumstances, an announcement will be sent from eCampus.

Netiquette Expectations:
Netiquette is network etiquette. Netiquette covers both common courtesy online and the informal when communication with other online. TAMU Instructional Technology Services provides some general netiquette rules that students and faculty are expected to follow within this course. For more information on netiquette, please visit http://its.tamu.edu/Distance_Education/Netiquette_Aggie_Honor_Code.php
Institutional 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, 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, Student Services @White Creek, or call 845-1637. For additional information visit http://disability.tamu.edu.

This course uses Blackboard Learn as its online platform. To know more about its accessibility standards please to their website. http://www.blackboard.com/Platforms/Learn/Resources/Accessibility.aspx

If you find that course content or software are not accessible, please contact your course instructor or disability services so that appropriate accommodations to the learning environment can be made.

Academic Integrity Statement and Policy:
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."

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 and integrity, characteristics that Aggies have always exemplified. The Aggie Code of Honor functions as a symbol to all Aggies, promoting understanding and loyalty to truth and confidence in each other.

For more information, please visit, http://student-rules.tamu.edu/aggiecode and http://aggiehonor.tamu.edu/

Statement of Plagiarism:
All materials generated for this class (which may include but are not limited to syllabi and in-class materials) are copyrighted. You do not have the right to copy such materials unless the instructor expressly grants permission. As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writing, 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 permission of that person. Plagiarism is one of the worst academic violations, for the plagiarist destroys trust among others. 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.”

Export Control Statement:
United States export control laws regulate the release of goods and technologies that affect U.S. national security or foreign policy interests. Distance education students and course content MUST comply with these U.S. export control laws. If TAMU indicates that you are attempting to access course content from an IP address associated with a country currently subject to economic and trade sanction, your TAMU NetID account will be terminated and you will be contacted by the TAMU Export Control Office and the Office of Identity Management. For additional visit, https://vpr.tamu.edu/resources/export-controls/resources.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus. •

Form Instructions
1. Course request type: [ ] Undergraduate  [ ] Graduate  [ ] First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Mays Business School Professional MBA Program
   FINC 662 Energy Finance
3. Course prefix, number and complete title of course:
4. Catalog course description (not to exceed 50 words):
   Analysis of financial aspects of the energy industry from exploration to delivery with emphasis on upstream segment; identifying differences in upstream, midstream, downstream; evaluation of profitability of key financial decisions.

5. Prerequisite(s):
   Enrollment is limited to Classification 7 MBA students.
   Cross-listed with:  Stack 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)

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

13. Prefix  Course #  Title (excluding punctuation)
    FINC 662  Energy Finance

    Leet  Lab  Other  SCH  CIP and Fund Code  Admin. Unit  Acad. Year  FICE Code
    3.00  0.00  0.00  3.00  5208010016  1110  16  -  17  0  3  6  3  2

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

   Chair, College Review Committee
   Dean of College

   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 sanda-williams@tamu.edu.
Curricular Services – 07/14
FINC 662
Energy Finance

Spring 2017

PROFESSOR: Shannon Deer, CPA
OFFICE: Wehner 445D
PHONE: 979-575-3851 (feel free to call or text)
E-MAIL: sdeer@mays.tamu.edu
SKYPE: Shannon.deer1
LOCATION: CITYCENTRE, Houston, TX, Friday evenings 6p – 10p and Saturdays 9a – 6p from 1/6/17 – 5/6/17

Course Description
This course will explore the financial aspects of the energy industry from exploration to the delivery at the pump. While a specific emphasis will be placed on the upstream segment, due to the unique financial aspects of the segment, attention will also be given to midstream and downstream.

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

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

- Bridge the communication gap between engineers and business professionals in an energy company.
- Identify the differences in upstream, midstream, downstream, and integrated energy companies from a financial perspective.
- Determine the impact of reserves on an E&P company’s annual report and on project evaluations, while recognizing the differences between the two.
- Evaluate the profitability of key financial decisions and potential projects within an energy company.
- Evaluate common hedging strategies used by energy companies and analyze the cash flow implications of a specific hedging strategy on a company’s cash flow.
- Determine the impact of mark-to-market accounting on a company’s financial statements as a result of specific hedging strategies.
- Develop a financing strategy for the expansion of an energy company.

Required Course Materials
• Operational representative – This individual will provide their group with expertise about acquisition, exploration, drilling, production, transportation, and/or refining. This role may be a natural fit for an engineer, project manager, specialist, sales representative, or for those who work in another capacity in the operations of the energy industry.

• Financial representative 1 – This individual will support their group in financial issues. If you are an accountant or financial analyst within or outside of an energy company this role might be a natural fit for you. It is okay if you do not have energy expertise; your financial expertise will be valuable to your group.

• Financial representative 2 – This representative’s role will be to provide additional support related to the financial aspects of projects along with the other financial representative. Your groups do not have two individuals currently working in accounting/finance departments. So, this might be a natural fit for project managers with industry expertise who are looking to move into executive positions within an energy company and hoping for more financial exposure.

• Corporate and social responsibility (CSR) representative – This role with explore the responsibility of companies within the industry to society and the development of policies that promote sustainability. This role may be a natural fit for someone without experience in the industry.

Daily Preparation and Use of Class Time
Specific and instructor guided advanced preparation will be required before each class. Preparation and out of class assignments/projects should average approximately 5 hours per week. Based on your professional experience, some material may require more or less out of class time. The instructor guided nature of the advanced preparation will allow you to anticipate the time required from week-to-week.

This course will depend on class discussions and case analyses. In class discussions will assist students in mastering the information explored before each class. Each case will be designed to apply these concepts to interpret financial information and make unique business decisions.

My commitment to you is to not personally deliver material for more than 10-15 minutes at a time. This means I will rely on everyone in the class to contribute to class discussions. Everyone has something valuable to contribute and everyone will benefit from the contributions of others.

Appointments
My students are my number one priority. Your success, especially after this class, is incredibly important to me and is the sole reason I chose this line of work. My cell phone number (call or text), Skype information, and email address have all been made available to you. I am happy to schedule remote meetings outside of business hours to meet your scheduling needs. I can also meet with you before/after class meetings. Due to my teaching schedule on main campus I am unlikely to be available at the following times: Mondays & Wednesdays 10:20-
discussion then you are responsible for trying to continue the discussion and monitoring responses to your posts.

*Posting guidelines:* Posts and responses will be graded based on the following:

1) Demonstrating knowledge and mastery of the topic discussed; I agree...is not sufficient. Add something to the discussion.
2) Offering additional information not covered in class
3) Stimulating the interest of your peers and instructor
4) Being respectful of the peers and facilitator in your learning community
will be given a case. By the end of class that session, you will submit your ideas to your instructor and peers.

**Academic Integrity**

*Aggie Honor Code*

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

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit [http://aggiehonor.tamu.edu/](http://aggiehonor.tamu.edu/). On course work, assignments, and examinations at Texas A&M University, you may be asked to sign the following Honor Pledge:

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

**Attendance Policies**

Strict attendance in this class is expected in accordance with University and MBA program policies. Those who miss classes may penalize themselves by missing material that will be discussed in class, and that may not appear in the texts. Additionally, your group will suffer for missing out on your contribution. Any points for assignments due on the day of an absence will be lost if the absence is not university excused.

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 reasons absences are considered excused by the university are listed below. See Student Rule 7 for details ([http://student-rules.tamu.edu/rule07](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.

1) Participation in an activity that is required for a class and appears on the university authorized activity list at [https://studentactivities.tamu.edu/app/sponsauth/index](https://studentactivities.tamu.edu/app/sponsauth/index)

2) Death or major illness in a student’s immediate family.

3) Illness of a dependent family member.

4) Participation in legal proceedings or administrative procedures that require a student’s presence.

5) Religious holy day. NOTE: Prior notification is NOT required.

6) Injury or illness that is too severe or contagious for the student to attend class.
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<thead>
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<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Course/instructor introduction &amp; expectations</td>
<td>Case prep</td>
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<td>2</td>
<td>Industry overview/challenges</td>
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<td>3</td>
<td>Reserves</td>
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<td>4</td>
<td>Derivatives</td>
<td>Case prep</td>
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<tr>
<td>6</td>
<td>Acquisition</td>
<td>Case prep</td>
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<td>7</td>
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<td>8</td>
<td>International operations</td>
<td>Case prep</td>
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<td>Social/corporate responsibility</td>
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<td>Alternatives</td>
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<td>Downstream pricing</td>
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<td>13</td>
<td>NGLs &amp; LNGs</td>
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<tr>
<td>14</td>
<td>Class wrap-up and strategy presentations</td>
<td>Exam</td>
</tr>
</tbody>
</table>

**Online Discussion Deadlines – Initial Posts**
Operational representative: post due February 1, 10 p.m.
Financial representatives (both): post due February 1, 10 p.m.
Corporate and social responsibility representative: post due March 15, 10 p.m.

**Online Discussion Deadlines – Responses**
Operational responses due by: February 8, 10 p.m.
Financial responses due by February 8, 10 p.m.
CSR responses due by March 22, 10 p.m.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions

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

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

3. Course prefix, number and complete title of course:
   MEEN 611: Advanced Internal Combustion Engines

4. Catalog course description (not to exceed 50 words):
   Advanced thermodynamics of cycles for internal combustion engines, including fuels and combustion; performance characteristics of various types of engines.

5. Prerequisite(s):
   MEEN 344 or equivalent
   Cross-listed with:
   Stacked with: MEEN 410
   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, course may be taken _______ times.

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

   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 (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 mechanical engineering)

   MS, MEng, Ph.D in mechanical engineering

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

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

13. Prefix  Course #  Title (excluding punctuation)
    MEEN   611  Adv Int Comb Engines

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<th>Lect.</th>
<th>Lab</th>
<th>Other</th>
<th>SCH</th>
<th>CIP and Fund Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>Course Code</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

Submitted to Coordinating Board by:

Chair, GC or UCC  Date

Associate Director, Curricular Services  Date

Effective Date

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

*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: 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."

Instructor Note: It is acceptable (and encouraged) to assist each other and work together on homework and projects, even to the point of showing fellow classmates derivations and steps to solve problems. However, it is a violation of the Honor Code if the student receiving aid does not fully understand the derivation or solution steps they are shown, and simply copies the homework from a fellow student. Projects and exams must be completely individual work.

COURSE DETAILS:  
Tuesday / Thursday, 9:35 – 10:50am  
206 Engineering Physics Laboratory Building (James. J. Cain Building)

INSTRUCTOR:  
Dr. Timothy J. Jacobs  
tjjacobs@tamu.edu  
(979) 862-4355  
309 MEOB  
Office Hours: T/R, 11:00am to Noon. Open door policy (i.e., if my door is open, I will try to accommodate you).

TA:  
TBD

GRADING:  
Exam #1 25%  
Exam #2 25%  
Homework (5 sets, 3% each) 15%  
Projects (4 sets) 35%  
Letter Assignment Scheme:

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<th>Percentage</th>
<th>Grade</th>
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<tr>
<td>90 ≤ A ≤ 100</td>
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<td>80 ≤ B &lt; 90</td>
<td>B</td>
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<tr>
<td>70 ≤ C &lt; 80</td>
<td>C</td>
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<tr>
<td>60 ≤ D &lt; 70</td>
<td>D</td>
</tr>
<tr>
<td>F ≤ 60</td>
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</tbody>
</table>

Relative percentages for individual students can not be altered from the above stated distribution.

The Instructor is NOT allowed to discuss grade details through email or over the phone. Grades will be posted as they become available throughout the semester on the eCampus website. It is the student’s responsibility to ensure his or her grade is posted correctly.

A portion of your final grade is based on your team participation in the Project #4 activity as evaluated by you and your team mates. See the Peer Evaluation Form (available on e-learning under “Admin” folder) for details on how this evaluation occurs.

A portion of your final grade is based on your safe participation in a project-based experiment. Safety is everyone’s responsibility, including yours. You must review and sign the safety contract that is available on the eCampus website (under “Admin” folder), this must be done by the end of the first week of class. Unsafe behavior, whether intentional and / or negligent, as determined by the instructional staff will result in a failing grade for the semester.
This course is stacked with MEEN 410: Internal Combustion Engines. Lecture content, homework assignments, Projects #1 through #3, and exams are the same between this MEEN 611 and MEEN 410. Project #4 is different between MEEN 611 and MEEN 410. Specifically, MEEN 611 students are required to do additional advanced calculation and analysis for Project #4.

Homework will be assigned five times through the semester; students are generally given 9 – 12 days to complete each assignment.

There are four projects this semester. The projects include 1) analysis of previously collected experimental data, 2 and 3) generation and analysis of engine data using ideal model simulation, and 4) analysis of team-collected engine data from the instructor’s laboratory. Students are generally given at least two weeks to conduct projects. Project 1 will involve a tour of the instructor's engine laboratory on campus. Project 4 will involve team's students conducting engine experiments, collecting and analyzing data, and writing a report on the findings. Project 4 is a team project; thus one report is submitted per team. Your Project 4 grade is partly based on your team participation as assessed by you and your team mates (see Peer Evaluation Form available on e-learning under “Admin” folder).

Projects #1 and #4 require you to work in an experimental engine research facility. Safe behavior and awareness of safety issues are critically important. Failure to exercise safe working behavior could result in harm, including death, to you and / or your companions.

By the end of the first week of class, you must review and sign the safety contract that is available on eCampus (under the “Admin” folder). Return the signed safety contract to Dr. Jacobs by the end of the first week. Students who do not agree to the safety contract should disenroll from the class.

Two exams are scheduled. Unexcused absences will result in a grade of zero for missed examinations. Known absences for a scheduled exam must be brought to the attention of the instructor as soon as possible. Excused absences are defined by Student Rule 07 (http://student-rules.tamu.edu/rule07).

Unexcused late assignments (homework and projects) will not be accepted. Excused absences are defined by Student Rule 07 (http://student-rules.tamu.edu/rule07).

This course will make use of the eCampus website, ecampus.tamu.edu. All course handouts and material are available on eCampus. Student grades will be posted on the eCampus website.

MEEN 344 or equivalent. It is the student’s responsibility to ensure proper requirements are satisfied for enrollment in this course.


Ideal cycle model simulation and adiabatic flame temperature programs provided by instructor.


Advanced thermodynamics of cycles for internal combustion engines and gas turbines, including fuels and combustion; performance characteristics of various types of engines.

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.
### Course calendar and exam content subject to change. Exam dates will remain fixed.

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<thead>
<tr>
<th>Lecture</th>
<th>Week</th>
<th>Date</th>
<th>Book Chapter</th>
<th>Coverage</th>
<th>Assignments</th>
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<td>Notes, 1</td>
<td>Introduction, Engine Basics</td>
<td>HW 1 Out</td>
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<td>2</td>
<td>1</td>
<td>1/22</td>
<td>Notes, 1</td>
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<td>2</td>
<td>1/27</td>
<td>Notes, 1</td>
<td>Societal issues / Advanced Technology</td>
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<td>2</td>
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<td>Notes, 2, 5</td>
<td>Basic geometry</td>
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<td>2/3</td>
<td>Notes, 2, 5</td>
<td>Performance parameters</td>
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<td>Heat transfer, friction</td>
<td>Lab 2 Out</td>
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<td>4</td>
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<td>Notes, 2, 5</td>
<td>Indicated parameters</td>
<td>HW2 Due, Lab 1 Out, HW3 Out</td>
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<td>4</td>
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<td>Notes, 2, 5</td>
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<td>SI combustion / Burn rates</td>
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<td>Notes, 6, 7</td>
<td>Makeup for lab tours and lab 4</td>
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<td>28</td>
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<td>4/30</td>
<td>Notes</td>
<td>Conclusion and Evaluations</td>
<td>Lab 4 Due at 11:59pm (by email):</td>
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<td>Exam 2 Review (9:35am to 10:50am)</td>
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<td>EXAM 2 (12:30 – 2:30pm)</td>
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</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate ♦ Graduate ♦ Professional
• Submit original form and attach a course syllabus.

Form Instructions

1. Course request type:  □ Undergraduate  X Graduate  □ First Professional (D.D.S., M.D., J.D., Pharm.D., D.V.M.)

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

3. Course prefix, number and complete title of course: MSEN 645 - Failure Mechanics of Engineering Materials

4. Catalog course description (not to exceed 50 words): Introduction and integration of key experimental, theoretical and computational aspects of failure in engineering materials, including metals and their alloys as well as polymers; includes: brittle fracture, ductile fracture and brittle-to-ductile transitions.

5. Prerequisite(s): Graduate classification; MSEN 601.

Cross-listed with: AERO 645

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  X No

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

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

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

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

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

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

13. Prefix  Course #  Title (excluding punctuation)
    MSEN 645 FAILURE MECH ENGR MATLS

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<th>Lab</th>
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<th>Acad. Year</th>
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Approval recommended by:

Miladin Radovic - MSEN
Department Head or Program Chair (Type Name & Sign) Date

John Criscione
Chair, College Review Committee Date

Vikram K. Kiria - AERO
Department Head or Program Chair (Type Name & Sign) Date
(if cross-listed course)

John Criscione
Dean of College Date

Karen Butler-Purry
Chair, GC or UCC Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services Date

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
AERO/MSEN 645 – Failure Mechanics of Engineering Materials

Credit 3: (3-0), Graduate Elective
SPRING 2016

Instructor: Dr. A. Amine Benzerga, HRBB-736C. E-mail: benzerga@tamu.edu
Office Hours: TBD
Phone: 845-1602

Course Description: Introduction and integration of key experimental, theoretical and computational aspects of failure in engineering materials, including metals and their alloys as well as polymers; includes brittle fracture, ductile fracture and brittle-to-ductile transitions.

Prerequisites: Graduate student classification; MSEN 601-Introduction to Materials Science and Engineering.

Expanded Course Description:
This course introduces and integrates key experimental, theoretical and computational aspects of failure in engineering materials, including metals and their alloys as well as polymers; topics include: brittle fracture, ductile fracture and brittle-to-ductile transitions. A field theory course and/or MEMA 611-Fracture Mechanics helpful.

Textbook and Required Material:
Typed Lecture Notes:
Ductile Fracture of Metals
A.A. Benzerga, 2014

Failure of Metals (114 pages)
In Comprehensive Structural Integrity
Pineau and Pardoef
Elsevier, 2007

Learning Objectives: Students will learn (i) how to distinguish between ductile and brittle fracture surfaces using fractography; (ii) the mechanisms of failure at microstructural length scales; (iii) micromechanics models of fracture and plastic flow localization. Students are expected to develop a fundamental understanding of engineering materials failure through a semester-long project. Project can focus on experiments, theory or simulations.
<table>
<thead>
<tr>
<th>Course Content:</th>
<th>Weeks</th>
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<tbody>
<tr>
<td><strong>Topic by Lecture</strong></td>
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<tr>
<td><strong>Introduction</strong></td>
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<tr>
<td>1. Failure types, modes and mechanisms</td>
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<tr>
<td><strong>Part A: Cleavage in Metals</strong></td>
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<tr>
<td>2. Theories of Cleavage</td>
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<td>2.1. Theoretical cleavage stress</td>
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<td>2.2. Dislocation-based theories</td>
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<td>3. Transgranular Cleavage</td>
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<td>3.1. Case of ferritic steels</td>
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<td>3.2. Case of other metals</td>
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<td>4. Intergranular Fracture</td>
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<td><strong>Part B: Ductile Fracture</strong></td>
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<td>5.2. Microscopic mechanisms (Fractography)</td>
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<td>5.3. Microscopic Measurements</td>
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<td>6. Void Formation and Damage Initiation</td>
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<td>6.1. Metal alloys</td>
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<td>6.2. Amorphous polymers</td>
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<td>6.3. Semicrystalline polymers</td>
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<td>6.4. Pure metals</td>
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<td>6.5. Void formation at micron and sub-micron scales</td>
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<td>7. Void Growth Theories</td>
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<td>7.1. Uncoupled modes (triaxiality effects)</td>
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<td>7.2. Coupled models (stress state effects)</td>
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<td>7.2.1. Elements of homogenization theory</td>
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<td>8. Void Coalescence</td>
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<td>8.1. Internal necking</td>
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<td>8.2. Void-sheet coalescence</td>
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<td>8.3. Necklace coalescence</td>
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<td>9.1. Necking in bars and sheets</td>
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<td>9.2. Shear band formation</td>
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<td>10. Crack Initiation and Crack Growth</td>
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<td>10.1. Bottom-up (materials science) approach</td>
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<td>10.2. Top-down (materials engineering) approach</td>
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<tr>
<td>10.3. Initially crack-free specimens</td>
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<tr>
<td>10.4. Pre-cracked specimens</td>
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<td>10.5. Fracture loci and failure maps of a ductile material</td>
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<tr>
<td><strong>Part C: Ductile-Brittle Transition (DBT)</strong></td>
<td>2</td>
</tr>
<tr>
<td>11. DBT in Fracture Toughness Tests</td>
<td>11</td>
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<tr>
<td>12. DBT in Charpy Impact Testing</td>
<td>12</td>
</tr>
<tr>
<td>13. Models of DBT</td>
<td>13</td>
</tr>
</tbody>
</table>
Project Presentations

Total Weeks 14
Final Exam 15

GRADING:
Homework 30%
Term Project 40%
Final Exam 30%

Method of Evaluation:
Grading percentages will be Homework 30%, Term Project 40%, and Final Exam 30%.
Grading Policy: A 90 – 100%, B 80 – 89%, C 70 – 79%, D 60 – 69%, F below 60%.

Attendance and Make-up Policy:
Late homework will be accepted for full credit only with the consent of the instructor at least 24 hours prior to class on the due date or due to a University excused absence.
You are responsible for any material covered and/or any assignments given even if absent from class. The university views class attendance as the responsibility of an individual student. Attendance is essential to complete the course successfully. University rules related to excused and unexcused absences are located on-line at: http://student-rules.tamu.edu/rule07.

Academic Integrity:
An Aggie does not lie, cheat, or steal or tolerate those who do.
The Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living under this code will be no problem, as it asks nothing of a person that is beyond reason. It only calls for honesty and integrity, characteristics that Aggies have always exemplified. As commonly defined, plagiarism consists of passing off as one’s own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please visit http://aggiehonor.tamu.edu and consult the latest issue of the Texas A&M University Student Rules at http://student-rules.tamu.edu/. Or, consult the instructor.

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

Revised: Nov.13, 2014
Texas A&M University
Departmental Request for a New Course
Undergraduate * Graduate * Professional
Submit original form and attach a course syllabus.

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

2. Request submitted by (Department or Program Name):
   Department of Nutrition and Food Science

3. Course prefix, number and complete title of course:
   NUTR 679 - LIPOPROTEINS IN HEALTH AND DISEASE

4. Catalog course description (not to exceed 50 words):
   Course provides an understanding of lipoprotein biology as it relates to nutrient delivery and disease development. Emphasis is placed on understanding how structure influences the function of different lipoprotein particles in human and avian systems. Students have the opportunity to study their own lipoprotein profiles or those of animals by modern imaging techniques. Background in basic lipid biochemistry helpful

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 _______ times.

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

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

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

11. This course will be:
    a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
       N/A
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
       ANY MASTER'S OR DOCTORAL PROGRAM

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):
    NUTR 679 LIPOPROTEINS IN HEALTH

    | Lec. | Lab | Other | SCH | CIF and Fund Code | Admin Unit | Acad. Year | EOC Code |
    |------|-----|-------|-----|-------------------|------------|------------|----------|
    | 3.00 | 0.00| 3.00  | 3.00| 3019010002        | 2120       | 16         | 17       |

    Approval recommended by:
    Dr. Stephen T. Talcott
    Department Head or Program Chair (Type Name & Sign)
    Date: 08/25

    Dr. David J. Caldwell
    Department Head or Program Chair (Type Name & Sign)
    Date: 10/3/15

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

    Associate Director, Curricular Services
    Date

    Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
    Curricular Services – 07/14
NEW COURSE 2016-2017
POSC 679 / NUTR 679

Selected Topics in Lipid Biology
(Lipoproteins in Health & Disease)

Instructor: Rosemary L. Walzem
Office: 242D Kleberg Center
Phone: 845-7537
E-mail: rwalzem@poultry.tamu.edu

POSC/NUTR 689 – Spring 2016
Classroom: HFSB 101
Time: Tuesday, Thursday
11:10 a.m. – 12:25 p.m.

Course Text: No texts are required, but, students will find Lipid Biochemistry: An Introduction 5th Ed. By Gurr, Harwood, and Frayn ISBN: 0-632-05409-3 a helpful general reference. Other texts on lipid chemistry and metabolism may be consulted. Most lectures will be taken from current reviews and research literature. Students are expected to read outside of the text. Reference and supplemental reading materials are listed in the webpage, you are responsible for content in reading materials assigned to a specific lecture.

Course Goals and Logic:

This is specialized course in lipid biology and lipoprotein metabolism. Examples are drawn from both animal models and human studies. The course is taught at an intermediate to advanced level. Students should develop a clear understanding of lipoprotein metabolism in humans and animals (birds especially), as well as lipid and lipoprotein associated diseases such as atherosclerosis, fatty liver or NASH, and egg yolk peritonitis and macular degeneration. Students will be introduced to analytical and experimental/interpretive tools used to study lipoproteins and lipid biology and can practice lipoprotein separations experimentally. Students are expected to develop the ability to read proposals or lipid claims critically.

Course Schedule:

Lectures will be placed on the course website following in class delivery or by the date listed in the syllabus for web-only lectures.
Exams and Grading:

There will be a take home examination and a final. Students will also critically read and summarize research papers relevant to specific lectures coming to a scientifically supported conclusion regarding the quality and merit of the work. Quizzes related to factual recall (e.g. definitions) will be given weekly while midterm and final exams will employ questions requiring integration of lecture and reading materials.

Take home exam – 30%
Assigned paper critiques – 20%
Quizzes – 15%
Final exam – 35%

NOTE: Final exam is May 12, Wednesday, 8AM – 10AM.

Grading: > 90% = A
80 - 89.5% = B
70 - 79.5% = C
60-69.5% = D
0-59.5% = F

If you do not score at least 80% on the quizzes and paper synopses during the first few weeks consider seriously whether you can improve your grade. Students experiencing difficulty with the course material should see Dr. Walzem as soon as possible for help.

Attendance and Make-up Policy

Absenteism Policy

This policy is drafted in accordance with the Texas A&M University Regulations Manual. Visit website for information on student rule 7: http://student-rules.tamu.edu/rule07).

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1. Participation in an activity appearing on the University authorized list.
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4. Illness of a dependent family member.
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7. Required participation in military duties.

The student must notify the instructor of the excused absence, in person or by telephone, within 48 hours of the last date of absence. Makeup exams will be scheduled and must be completed within 30 days of the last date of absence. Unexcused absences on dates of quizzes or exams will result in grades of F (0 points) on that exam.
In addition to these University mandated regulations; the following policies also apply to absenteeism in this course:
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<td>Apr 7</td>
<td>Cholesterol and related cyclic lipids, functions, absorption and excretion</td>
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<td>21</td>
<td>Apr 12</td>
<td>Reverse cholesterol transport (RCT): VLDL &amp; HDL (ApoA1)</td>
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<td>22</td>
<td>Apr 14</td>
<td>High Density Lipoproteins</td>
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<td>23</td>
<td>Apr 19</td>
<td>Heterogeneous multipurpose platforms for good &amp; evil</td>
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<tr>
<td>24</td>
<td>Apr 21</td>
<td>HDL, why is good cholesterol is good chick at hatch, hen at molt, vascular wall at risk</td>
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<tr>
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<td>Apr 26</td>
<td>HDL – density definition adequate? Or what is HDL functionality?</td>
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<tr>
<td>26</td>
<td>Apr 28</td>
<td>Inflammation/innate immunity &amp; RCT</td>
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<tr>
<td>27</td>
<td>Apr 28</td>
<td>Alternate macrophage activation</td>
</tr>
<tr>
<td>28</td>
<td>Apr 28</td>
<td>Iron utilization &amp; Egg Yolk Peritonitis</td>
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<tr>
<td>29</td>
<td>Apr 28</td>
<td>Specialized nutrient delivery roles for HDL - Lutein</td>
</tr>
<tr>
<td>30</td>
<td>Apr 28</td>
<td>Final Exam: May 10 8-10 AM</td>
</tr>
</tbody>
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**Academic Integrity Statement and Policy:**

**Aggie Honor Code**

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

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an oral exam on the material in question. Anyone committing plagiarism will receive a grade of "F" in this course.

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(12/2015)
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  □ Gradate  □ First Professional (DDS, MD, JD, PharmD, DVM)
2. Request submitted by (Department or Program Name): Department of Poultry Science
   POSC 679 - LIPOPROTEINS IN HEALTH AND DISEASE
3. Catalog course description (not to exceed 50 words):
   Course provides an understanding of lipoprotein biology as it relates to nutrient delivery and disease development. Emphasis is placed on understanding how structure influences the function of different lipoprotein particles in human and avian systems. Students have the opportunity to study their own lipoprotein profiles or those of animals by modern imaging techniques. Background in basic lipid biochemistry helpful.

5. Prerequisite(s): NONE
   Cross-listed with: NUTR 679  Stacked with:
   Cross-listed courses require the signatures of both department heads.
   Is this a variable credit course? □ Yes  □ No  If yes, from ________ to ________
   Is this a repeatable course? □ Yes  □ No  If yes, this course may be taken ________ times.
   Will this course be repeated within the same semester? □ Yes  □ No
   Will this course be submitted to the Core Curriculum Council? □ Yes  □ No
   How will this course be graded: □ Grade  □ S/U  □ P/F (CLMD)

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

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

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

13. Prefix  Course #  Title (excluding punctuation)
   POSC  679  LIPOPROTEINS IN HEALTH
   LECT.  LAB  OTHER  SCH  CP and Fund Code  Admin. Unit  Acad. Year  HU Code
   3.00  0.00  3.00  3019010002  2350  16  -  17  0  0  3  6  3  2

Approval recommended by:
Dr., David J. Caldwell  11-7-15
Department Head or Program Chair (Type, Name & Sign)
Chair, College Review Committee  12/11/15
Date

Dr. Stephen T. Talcott  12/11/15
Department Head or Program Chair (Type, Name & Sign)
(if cross-listed course)
Dean of College  12/11/15
Date

Submitted to Coordinating Board by:
Chair, GC or UCC  12/11/15
Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 07/14
NEW COURSE 2016-2017
POSC 679 / NUTR 679

Selected Topics in Lipid Biology
(Lipoproteins in Health & Disease)

Instructor: Rosemary L. Walzem
Office: 242D Kleberg Center
Phone: 845-7537
E-mail: rwalzem@poultry.tamu.edu

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NOTE: Final exam is May 12, Wednesday, 8AM – 10AM.

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</tr>
<tr>
<td>20 Apr 7</td>
<td>Cholesterol and related cyclic lipids, functions, absorption and excretion</td>
<td></td>
</tr>
</tbody>
</table>

**High Density Lipoproteins**

**Heterogeneous multipurpose platforms for good & evil**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 Apr 12</td>
<td>HDL, why is good cholesterol is good chick at hatch, hen at molt, vascular wall at risk</td>
</tr>
<tr>
<td>22 Apr 14</td>
<td>HDL – density definition adequate? Or what is HDL functionality?</td>
</tr>
<tr>
<td>23 Apr 19</td>
<td>Inflammation/innate immunity &amp; RCT</td>
</tr>
<tr>
<td>25 Apr 26</td>
<td>Alternate macrophage activation Iron utilization &amp; Egg Yolk Peritonitis</td>
</tr>
<tr>
<td>26 Apr 28</td>
<td>Specialized nutrient delivery roles for HDL - Lutein</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final Exam</th>
<th>May 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-10 AM</td>
</tr>
</tbody>
</table>

**Academic Integrity Statement and Policy:**

**Aggie Honor Code**

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

Please refer to the website link [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu) for further information on academic integrity.

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. Anyone suspected of plagiarism will be given
an oral exam on the material in question. Anyone committing plagiarism will receive a grade of "F" in this course.

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."

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 reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call (979) 845-1637. For additional information visit website at: http://disability.tamu.edu.
Course Changes
Texas A&M University
Departmental Request for a Change in Course
Undergraduate ▶ Graduate ▶ Professional
Submit original form and attachments.

Form Instructions:
1. Course request type: [ ] Undergraduate [ ] Graduate [ ] First Professional (DDS, MD, JD, PharmD, DMA)
2. Request submitted by (Department or Program Name): Department of Educational Psychology
3. Course prefix, number and complete title of course: EDTC 642: Designing for Mobile Learning

4. Change requested:
   a. Prerequisite(s): From: ___________________________ To: ___________________________
   b. Withdrawal (reason): ___________________________
   c. Cross-list with: ___________________________

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

   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.

   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.

5. Is this an existing core curriculum course? [ ] Yes [ ] No
6. If grade type is changing for existing course, indicate the new grade type: [ ] Grade [ ] S/U [ ] P/F (CLMD)
7. If this course will be stacked, please indicate the course number of the stacked course: ___________________________

8. 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).

9. Complete current course title and current catalog course description:

10. Complete proposed course title and proposed catalog course description (not to exceed 50 words):

11. a. As currently in course inventory:

   Prefix | Course # | Title (excluding punctuation)
   EDTC   | 642      | Design for Mobile Learning

   Lect. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | HCE Code | Level
   3.00 | 3.00 | 0.00 | 100 | 1305010004       | 0920        | 0 0 3 6 3 2 6

b. Change to:

   Prefix | Course # | Title (excluding punctuation)
   EDTC   | 642      | Design for Mobile Learning

   Lect. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | HCE Code | Level
   3.00 | 0.00 | 0.00 | 3.00 | 1305010004       | 0920        | 16 - 17 | 0 0 3 6 3 2 6

   Approval recommended by: ___________________________

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

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

   Submitted to Coordinating Board by:

   Associate Director, Curricular Services

   Date

   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 08/14
December 2, 2015

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: Change to Course – EDTC 642 Designing for Mobile Learning

Attached, please find the appropriate paperwork for changing the course EDTC 642: Designing for Mobile Learning.

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

1. **Rationale:** When the paperwork was done to create this course, there was a clerical error that resulted in the course being offered for 4 credit hours, not the 3 credit hours it was intended to be offered. This course change will resolve that issue.

2. **Vote by the Executive Committee:** The changes have the unanimous support of our executive committee.

We appreciate your consideration of this course. Please contact us should you require any additional information.
EDTC 642 Designing for Mobile Learning
Spring 2016

Syllabus & Course Schedule

Course Description:

Introduction to the basics of designing educational applications for mobile devices. Emphasis on instructional, visual, and human-computer interaction design principles. Hands-on design and development work combined with a theoretical approach to designing learning experiences. No previous programming experience is required.

Prerequisites: Graduate Classification; approval of department head.

Instructor:

Noelle Wall Sweany, Ph.D.
Clinical Associate Professor
Educational Technology Program
Harrington 724
979-862-2086
nsweany@tamu.edu (quickest response)

Office Hours:

You are welcome to make an appointment to meet with me to discuss your progress, work, or evaluation at any time. We can arrange to discuss by phone, Skype/Google Hangouts, or meet in person.

Course Objectives:

By the end of this course, you will be able to:

- List benefits and challenges of using mobile technologies for learning
- Identify instructional objectives that would benefit from a mobile approach
- Evaluate educational apps according to pedagogical and interface design principles
- Discuss the current m-learning trends in K-12, Higher Ed, and Corporate contexts
- Describe the strengths and weaknesses of various mobile platforms
- Apply instructional, visual, and usability design principles to the development of a mobile app

Texts:


- Other readings as assigned. These will be available on eCampus for download.
Course Web Page

We will use eCampus as our learning platform. You can access our course section by logging into http://ecampus.tamu.edu/ and clicking on our course title under My Courses. Student Tutorials for eCampus can be found under ITS Docs on the Help menu or at http://ecampus.tamu.edu/student-help.php

Course Assignments and Evaluation:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Discussions &amp; Activities</td>
<td>45</td>
</tr>
<tr>
<td>Design Proposal</td>
<td>10</td>
</tr>
<tr>
<td>Storyboard &amp; Interface Design</td>
<td>15</td>
</tr>
<tr>
<td>Working App</td>
<td>30</td>
</tr>
</tbody>
</table>

Letter Grade Scale:

- A = 90 to 100 points
- B = 80 to 89 points
- C = 70 to 79 points
- F = 0 to 69 points
Weekly Participation Requirement (45 pts.)

The success of this course depends on active participation from all of us. Weekly participation is required. Students are responsible for completing the assigned readings, completing the weekly online activities, and responding to peers’ posts and comments.

For the online discussion, typically, you will be asked to **post your first response to the discussion area by Tuesday** (end of day). To earn FULL credit, you will post on at least 2 different days throughout the week. Your comments should demonstrate that you have thought about the material at a deeper level and they should add value/insight to our discussion. A simple “I agree” or “Good point” will not earn full credit. Substantive comments may include personal examples, provide a counter-argument, incorporate outside sources, ask follow-up questions, etc. A few other helpful guidelines:

- A week is defined as 7 days between Sunday and Saturday
- Think about the questions first before you read the responses of your classmates.
- **View the discussion not as a writing assignment but as a dialogue between yourself and the members of the class.**
- Keep your responses **concise**, but provide enough information to get your point across.
- Ask open-ended questions that invite the response of your classmates.
- Make sure you title the post so that classmates can follow the threads of the discussion.
- Check back to see if any of your classmates have responded to your posting.

In my role as a facilitator, I really enjoy seeing the discussion unfold and the connections that are made. To keep the discussion flowing, I will post follow-up questions/comments to specific posts, but I will not respond to every post. Please do not assume that if I don’t respond to your individual post that I have not read it or do not agree with it. I typically wait for at least one other person to respond to a particular comment before I reply.

**Note:** Each week will have different activities and requirements so be sure and check in early in the week to see what is required.
Weekly Participation Evaluation Rubric:

The following table outlines the 3 criteria that I will be looking at in our Weekly Discussions -- Critical Thinking, Interaction, and Contributions. Each of these criteria is worth 1 to 3 points. (I consider your posts as a whole, not individually.) I will average the 3 criteria to assign you a weekly grade. If I notice you veering off track, I’ll provide some written comments as well. You'll notice that the Weekly Discussion is worth 45% of your grade which is an indication of the value I place on these discussions.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Levels of Attainment</th>
<th>Points</th>
</tr>
</thead>
</table>
| **Critical Thinking** | - Posts demonstrate clear understanding of assigned reading  
                          - (Often includes a personal example or outside source that clearly relates to content being discussed)  
                          - Posts written with basic understanding of material, but need more detail  
                          - Posts are brief; tend to be “I agree” or “Yes” | 3      |
| **Interaction**  | - Initiated several interactions and responded to most/all questions asked by peers  
                          - Rarely initiated interaction; Responded to direct questions asked of them  
                          - Little or no interaction with peers; Did not ask questions of peers; Did not respond to questions asked of them | 2      |
| **Contributions** | - Posts were made on 2 or more days (initial deadline met)  
                          - Posts were only made on one day (Initial deadline met) OR Posts made on 2 or more days (initial deadline not met)  
                          - Posts were only made on one day (Initial deadline not met) | 1      |
Relevant Policies

Copyright/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, please consult the latest issue of the Texas A&M University Student Rules under Part I. Academic Rules, Academic Misconduct.

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."

CEHD Statement on Diversity

We, the faculty of the College of Education and Human Development, value and respect diversity and the uniqueness of each individual. The faculty affirms its dedication to non-discrimination in our teaching, programs, and services on the basis of race, color, religion, gender, age, sexual orientation, domestic partner status, ethnic or national origin, veteran status, or disability. The College of Education and Human Development at Texas A&M University is an open and affirming organization that does not tolerate discrimination, vandalism, violence, or hate crimes, and we insist that appropriate action be taken against those who perpetrate such acts. Further, the College is committed to protecting the welfare, rights, and privileges of anyone who is a target of prejudice or bigotry. Our commitment to tolerance, respect, and action to promote and enforce these values embraces the entire university community.
## Course Schedule

**Contents of the schedule are subject to change. Any changes will be announced in class in advance.**

**IF THE LINKS DON'T WORK, TRY COPYING AND PASTING THE URL INTO YOUR BROWSER**

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Topic</th>
<th>Readings/Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Jan. 19</td>
<td>Introduction to the course</td>
<td></td>
</tr>
</tbody>
</table>
| 2 – Jan. 25 | mLearning and Cognition: Opportunities and Challenges | M&D, Ch. 1, 2  
             |                                             | Peters, Ch. 1, 2, 9 |
| 3 – Feb. 1 | mLearning Trends in K-12, Higher Ed, and Corporate Learning | M&D, Ch. 5, 9, 11  
             |                                             | Peters, Ch. 3  
             |                                             | Ch. 5, 6 from Clark Quinn’s ‘Designing mLearning: Tapping into the Mobile Revolution for Organizational Performance |
| 4 – Feb. 8 | Introduction to LiveCode                   | LiveCode Beginner’s Guide |
| 5 – Feb. 15 | Creating your first app                    | LiveCode Tutorials |
| 6 – Feb. 22 | mLearning Design Guidelines                | M&D, Ch. 6, 7, 8 |
| 7 – Feb. 29 | Designing for various mobile platforms     | LiveCode Mobile Guide |
| 8 – Mar. 7 | Writing a Design Proposal                  | Due 3/14: Design Proposal |
| 9 – Mar. 14 | SPRING BREAK                               |                    |
| 10 – Mar. 21 | User Interface Design Principles           | Peters, Ch. 4,5, 10 |
| 11 – Mar. 28 | mLearning and Collaboration               | M&D, Ch. 4  
             |                                             | Peters, Ch. 6,7  
             |                                             | Due 4/2: Storyboard & Interface Design |
| 12 – Apr. 4 | Evaluation and Accessibility Issues        | M&D, Ch. 12, 13 |

mLearning, Spring 2016
Page 6 of 5
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 – Apr. 11</td>
<td>Field Testing your App</td>
<td></td>
</tr>
<tr>
<td>14 – Apr. 18</td>
<td>Work Week</td>
<td></td>
</tr>
<tr>
<td>15 – Apr. 25</td>
<td>Future of mLearning</td>
<td>M&amp;D, Ch. 21</td>
</tr>
<tr>
<td>16 – May 2</td>
<td>Final Week</td>
<td>Course Wrap-Up</td>
</tr>
</tbody>
</table>
<pre><code>                                  | Due 5/6: Final Working App    |
</code></pre>
Curriculum Changes
CHANGE IN CURRICULUM

COLLEGE OF GEOSCIENCES
DEPARTMENT OF GEOLOGY AND GEOPHYSICS
BA IN GEOLOGY AND MS IN OCEANOGRAPHY 3+2
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: 
   □ Undergraduate □ Graduate □ First Professional (e.g. DVM, JD, MD, etc.)
   □ Degree Program □ Minor □ Certificate

2. Request change for:

3. Request submitted by (Department or Program Name):
   Program Designation and Name
   (e.g. B.A. in History, Minor in History, Certificate in European Union):
   Oceanography
   Geology - 5-Year Bachelor of Arts/Master of Science in Oceanography

4. Brief description of change:
   Adjust the catalog program requirements to match the degree evaluation and clarify options for students
   Includes change to GR program (attached). sw

5. Rationale for change:
   There were errors associated with the entering of the program requirements into the new electronic catalog. These need to be corrected. A few corrections were also made to the degree evaluation to account for the change in the MATH requirements to 8 credits from 6 credits.

6. Use the checkboxes below to make sure that all information is included.
   a. Proposed curriculum attached. □ Yes □ No
   b. Current catalog curriculum with handwritten edits attached. □ Yes □ No
   c. Current Howdy degree evaluation with handwritten edits attached. □ Yes □ No

8. If proposed changes affect other unit(s), are letters of support attached? □ Yes □ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UCC/GC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:

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

Chair, College Review Committee Date

Dean of College Date

Chair, GC or UCC Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or smahone@tamu.edu
Curricular Services - 04/14
RE: Revisions to the BS-METR-GOC, BS-GEOL-GOC, BA-GEOL-GOC and BS-ENGS-GOC programs.

We are requesting revisions to the 3+2 programs combining the non-thesis MS in Oceanography with the undergraduate METR, GEOL and ENGS degrees. They have been modified to swap out the non-thesis MS in Oceanography with the newly approved non-thesis Master of Ocean Science and Technology. This is simply a swap in the designation of the non-thesis Master's degree.

The degree plans remain as modified in the by the corrections recently submitted for approval.

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
Geology - 5-Year Bachelor of Arts/Master of Science in Oceanography

The Fast Track Program offers motivated and exceptional students the opportunity to achieve aspirations in an efficient program at Texas A&M, completing the Bachelor of Arts (B.A.) degree in the Department of Geology and Geophysics Geology Program and the Oceanography non-thesis M.S. degree in 5 years. There will be only two courses used for dual credit in this program. There is a total of 150 hours of coursework. The concurrent degree program will enable these motivated students to coordinate the required B.A. coursework for their undergraduate credit hours (5-6 dual credit graduate courses) and non-thesis M.S. coursework (36 credit hours including the 6 dual credit graduate courses) to complete the required credit hours for each degree without diminishing scope or quality of work and within 5 years.

Application and Eligibility:

- Applications to the Fast Track program will be submitted by July 1 after the completion of the student's junior year. Applications submitted after that time will be evaluated on a case-by-case basis.
- Applicants must have a minimum undergraduate GPR of 3.0. Applicants must also earn a C or better in all Chemistry, Calculus and Physics courses. Once admitted to the program, students must maintain a minimum 3.0 GPR.
- A faculty advisor will be assigned to each student. Students may seek additional mentors, but a formal committee is not required.
- Students admitted into the Fast Track program must finish the entire 150 credit hours to obtain both the Bachelor's and Master's degrees. These students will be conferred with two degrees once they complete the 5th year of the concurrent program.
- Students admitted to the program will change from U4 to G7 status when they are admitted having completed at least 102 hours (end of spring semester, year 3).
- Students not accepted or not allowed to continue with the Fast Track Program will complete the 120 hour Bachelor's degree under the standard 4 year curriculum. These students may still apply to the traditional graduate program.
- Students will graduate at the completion of the 5th year in the Fast Track Program coursework (150 credit hours) with both Bachelor's and Master's degrees. Students will complete the coursework in May of the 5th year.

Program Requirements

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>GEOL 104</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>CHEM 101</td>
<td>Fundamentals of Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 111</td>
<td>Fundamentals of Chemistry Laboratory I</td>
</tr>
<tr>
<td>MATH 151</td>
<td>Engineering Mathematics I</td>
</tr>
<tr>
<td>ENGL 104</td>
<td>Composition and Rhetoric</td>
</tr>
</tbody>
</table>

Free elective (recommend OCNG 252) 1

Term Semester Credit Hours 16

Second Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>GEOL 203</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>GEOL 311</td>
<td>Principles of Geological Writing</td>
</tr>
<tr>
<td>GEOP 341</td>
<td>Global Geophysics</td>
</tr>
<tr>
<td>PHYS 218</td>
<td>Mechanics</td>
</tr>
<tr>
<td>MINOR elective</td>
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Term Semester Credit Hours 15

Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 302</td>
<td>Introduction to Petrology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 306</td>
<td>Sedimentology and Stratigraphy</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 208</td>
<td>Electricity and Optics</td>
<td>4</td>
</tr>
<tr>
<td>GOVERNMENT/POLITICAL SCIENCE elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MINOR elective</td>
<td>3</td>
<td></td>
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</table>

Term Semester Credit Hours 18

Third Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>GEOL 330</td>
<td>Geologic Field Trips</td>
</tr>
<tr>
<td>GEOL elective</td>
<td>3</td>
</tr>
<tr>
<td>GOVERNMENT/POLITICAL SCIENCE elective</td>
<td>6</td>
</tr>
<tr>
<td>AMERICAN HISTORY or GOVERNMENT/POLITICAL SCIENCE elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Term Semester Credit Hours 15

Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>GEOL 309</td>
<td>Introduction to Geological Field Methods</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 312</td>
<td>Structural Geology and Tectonics</td>
<td>4</td>
</tr>
<tr>
<td>GEOL elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OCNG 499</td>
<td>Introduction to Geological Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>CREATIVE</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MINOR elective (recommend OCNG 252)</td>
<td>1</td>
<td></td>
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</table>

Term Semester Credit Hours 17

Fourth Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
</tr>
<tr>
<td>SOciAL AND BEHAVIORAL SCIENCES elective</td>
<td>3</td>
</tr>
<tr>
<td>AMERICAN HISTORY or GOVERNMENT/POLITICAL SCIENCE elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Term Semester Credit Hours 17
Geology - 5-Year Bachelor of Arts/Master of Science in Oceanography

OCNG 604 Ocean Observing Systems 3
OCNG 608 Physical Oceanography 3
OCNG 603 Communicating Ocean Science 3

Term Semester Credit Hours: 15

Spring
GEOL elective 4
Language, philosophy, or culture 3
OCNG 657 Data Methods and Graphical Representation in Oceanography 3

OCNG 640 Biological Oceanography 6
OCNG 640 Chemical Oceanography 2

Term Semester Credit Hours: 15
Total Semester Credit Hours: 46

Fifth Year
Fall
Advanced specialized OCNG graduate course 3
Advanced specialized OCNG graduate course 3
Advanced specialized OCNG graduate course 3

Term Semester Credit Hours: 9

Spring
Advanced specialized OCNG graduate course 3
Advanced specialized OCNG graduate course 3
Simulation Experience II 3

Term Semester Credit Hours: 9
Total Semester Credit Hours: 18

Any of the required courses may be taken during the summer sessions to diminish the length of the semester.

If students use any of allowed OCNG courses (e.g. OCNG 251, OCNG 351, OCNG 252, OCNG 350, OCNG 451, OCNG 450) as minor or free electives, they will receive an OCNG minor with their BA in GEOL.

A second W course is required. GEOL 312 is offered as a W option when taught by Dr. Julie Newman, and other GEOL electives also fulfill the W requirement (including GEOL 491 when arranged with the permission of the instructor).

Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g. OCNG 410/OCNG 608, OCNG 440/OCNG 640).

Graduate courses will be taken for dual undergraduate/graduate credit and may contribute to the minor.

Admission Process
Apply: End of Junior year with a minimum GPA = 3.0
Examine August prior to starting graduate coursework for all of Senior Year.

Change to graduate status (G7).
Detail Requirements

Information for Degree Evaluation

This is NOT an official evaluation.

Program Evaluation

Limitation Correspondence: No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

Limitation Combination: Maximum combination of 16 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

Program: BA GEOL GOC program
Campus: College Station
College: Geosciences
Degree: Bachelor of Arts
Level: Undergraduate
Majors: Geology
Departments: Geology & Geophysics

Catalog Term: Fall 2015 - College Station
Evaluation Term: Fall 2015 - College Station
Expected Graduation Date:
Request Number: 7
Results as of: Oct 16, 2015
Minors:
Concentrations:

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Other Course Information
Transfer: 0.000 0

This is NOT an official evaluation.

Area: Major Coursework (46,000 credits) - Not Met

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Total Credits and GPA: 0.000

Area: Social and Behavioral Sciences (3,000 credits) • Not Met

Net Condition Rule: Subject Attribute Low (High Required Credits Required Courses)

Term Subject Course Title Attribute Credits Grade Source

No

Creative Arts Requirement

Area: Creative Arts (3,000 credits) • Not Met

Net Condition Rule: Subject Attribute Low (High Required Credits Required Courses)

Term Subject Course Title Attribute Credits Grade Source

No

Select three hours from any course with the Creative Arts attribute (KA).
Term Subject Course Title Attribute Low Required Credits

Area University Writing Requirement - Not Met

unofficial evaluation

Total Credits and GPA 0.000

unofficial evaluation

Total Credits and GPA 0.000

Area General Electives (total credits) - Not Met

unofficial evaluation

Area General Electives (total credits) - Not Met

unofficial evaluation

Area General Electives (total credits) - Not Met

unofficial evaluation

Area General Electives (total credits) - Not Met

unofficial evaluation

Area General Electives (total credits) - Not Met

unofficial evaluation

Area General Electives (total credits) - Not Met

unofficial evaluation
23 October 2015

MEMORANDUM

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences

To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences

From: Dr. Debbie Thomas, Department Head, Oceanography
Dr. Michael Pope, Department Head, Geology and Geophysics

RE: Revisions to catalog degree requirements for the Joint degree program between Oceanography and the Geology BA program

I have attached a revision to the Fast Track 3+2 program for BA GEOL and the non-thesis MS in Oceanography. It has been modified to fix the errors in the catalog degree requirements and in the degree evaluation.

Catalog changes include:

First Year Fall
  • Adding the course title for MATH 151 and including new footnote #1
  • Replacing the GEOS 101 Introduction to the Geosciences course with a free elective and indicate that GEOS 101 is recommended for this 1 credit course.

First Year Spring
  • Communications elective

Second Year Fall
  • Remove references to old footnote 1
  • Add a Language/Philosophy/Culture elective and increase semester credits from 15 to 18.
  • Correct the footnote for the minor elective

Second Year Spring
  • Removing reference to old footnote #1
  • Showing the American History elective correctly as ‘American History or Government/Political Science Elective’
  • Correct the footnote for the minor elective and include the 3 credits for this in the semester total revising the total from 15 to 18

Third Year Fall
  • Showing the American History elective correctly as ‘American History or Government/Political Science Elective’
  • Removing the old footnote references.

Third Year Spring
  • Correcting the footnote number for GEOL 312 to footnote #2 in the revised footnote list
  • Correcting the footnote number for OCNG 430 to footnote #1 in the revised footnote list

O&M Building, Room 1204
3146 TAMU
College Station, TX 77843-3146

Tel. 979.845.7211 Fax 979.845.6331
• Remove the old footnote references
• Add the word elective for the creative arts elective
• Change the free elective to a minor elective.

Fourth Year Fall
• Add the word elective for the social and behavioral sciences elective
• Showing the American History elective correctly as ‘American History or Government/Poliical Science Elective’
• Move OCNG 603 to the spring semester. Replace with choosing one of the fundamental graduate OCNG courses (OCNG 620, OCNG 630 or OCNG 640)

Fourth Year Spring
• Replace the Language/Philosophy/Culture elective with Technical Elective
• Replacing OCNG 620 with OCNG 603 Communicating Ocean Science
• Replace OCNG 640 with choosing one of the fundamental graduate OCNG courses (OCNG 620, OCNG 630 or OCNG 640).

Total Four year hours
• Correcting the total credits for four years to 132. There are 12 credit hours that are graduate only in the fourth year along with 6 credit hour of dual graduate/undergraduate credit.

Fifth Year Spring
• Correcting the Capstone Experience to the actual course ONG 661 Advanced Oceanographic Data Analysis and Communication

Correct footnotes are:

1 If students use up to 9 hours of allowed undergraduate OCNG courses (e.g. OCNG 251, 252, 350, etc) with the two dual credit graduate courses they will also be eligible to receive an oceanography minor with their BA in GEOL.

2 A second W course is required. GEOL 312 is offered as a W option when taught by Dr. Julie Newman, and other GEOL electives also fulfill the W requirement (including GEOL 491 when arranged with the permission of the instructor).

3 Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g. OCNG 440/OCNG 640).

4 Two graduate courses will be taken for dual undergraduate/graduate credit and will contribute to the minor.

Corrections to the Degree Evaluation include:

Supporting Coursework
• Technical electives becomes 3 hours
• Minor emphasis becomes 16 hours to include the extra 1 credit hour minor elective (recommended OCNG 252, but could be OCNG 281 or OCNG 481).

Mathematics
• Changed from 6 credits to 8 credits to accommodate the MATH 151 and MATH 152 requirements

Life and Physical Sciences
• Added the labs for CHEM (111 and 112) to maintain the 16 credit hours

General Electives
• Reduced to 4 credits to accommodate the increase in MATH from 6 credits to 8 credits.

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
CHANGE IN CURRICULUM

COLLEGE OF GEOSCIENCES
DEPARTMENT OF GEOLOGY AND GEOPHYSICS
BS IN GEOLOGY AND MS IN OCEANOGRAPHY 3+2
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: [ ] Undergraduate [ ] Graduate [ ] First Professional (e.g., DVM, JD, MD, etc.)

2. Request change for: [ ] Degree Program [ ] Minor [ ] Certificate

3. Request submitted by (Department or Program Name):
   Oceanography

4. Program Designation and Name:
   Geology - 5-Year Bachelor of Science/Master of Science in Oceanography

5. Brief description of change:
   Adjust the catalog program requirements to match the degree evaluation and clarify options for students
   Includes change to GR program (attached). sw

6. Rationale for change:
   There were errors associated with the entering of the program requirements into the new electronic catalog. These need to be corrected.

---

Use the checkboxes below to make sure that all information is included.

a. Proposed curriculum attached. [ ] Yes [ ] No

b. Current catalog curriculum with handwritten edits attached. [ ] Yes [ ] No

c. Current Howdy degree evaluation with handwritten edits attached. [ ] Yes [ ] No

   *Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.*

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? [ ] Yes [ ] No

b. If yes, degree program hours will change from: _________ to: _________

c. If yes, is the Texas Higher Education Coordinating Board form attached?
   [ ] Yes [ ] No
   [http://www.theCB.state.tx.us/index.cfm?objectid=A0F9F7FA-9A92-4F11-2756AD3BBF01D60](http://www.theCB.state.tx.us/index.cfm?objectid=A0F9F7FA-9A92-4F11-2756AD3BBF01D60)

9. If proposed changes affect other unit(s), are letters of support attached? [ ] Yes [ ] No

---

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UC/GC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:

[Signature]

Date: 10/30/2015

Chair, College Review Committee

Date: 10/30/2015

Dean of College

Date: 10/30/2015

Chair, GC or UCC

Date: 10/30/2015

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra.wills@tamu.edu

Curricular Services - 04/14

[RECEIVED CURRICULAR SERVICES]

[Signature]

Date: NOV 06 2015
MEMORANDUM

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences

To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences

From: Dr. Debbie Thomas, Department Head, Oceanography
       Dr. Ping Yang, Department Head, Atmospheric Sciences
       Dr. Michael Pope, Department Head, Geology and Geophysics
       Dr. Christian Brannstrom, Director Environmental Programs, College of Geosciences

RE: Revisions to the BS-METR-GOC, BS-GEOL-GOC, BA-GEOL-GOC and BS-ENGS-GOC programs.

We are requesting revisions to the 3+2 programs combining the non-thesis MS in Oceanography with the undergraduate METR, GEOL and ENGS degrees. They have been modified to swap out the non-thesis MS in Oceanography with the newly approved non-thesis Master of Ocean Science and Technology. This is simply a swap in the designation of the non thesis Master’s degree.

The degree plans remain as modified in the by the corrections recently submitted for approval.

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
Geology - 5-Year Bachelor of Science/Master of Science in Oceanography

The Fast Track Program offers motivated and exceptional students the opportunity to achieve aspirations in an efficient program at Texas A&M, completing the Bachelor of Science (B.S.) degree in the Department of Geology and Geophysics Geology Program and the Oceanography non-thesis M.S. degree in 5 years. There will be only two courses used for dual credit in this program. There is a total of 150 hours of coursework. The concurrent degree program will enable the motivated students to coordinate the required B.S. coursework (48 undergraduate credit hours and a dual credit graduate course) and non-thesis M.S. coursework (38 credit hours including the 6 dual credit graduate courses) to complete the required credit hours for each degree without diminishing scope or quality of work and within 5 years.

Application and Eligibility

- Applications to the Fast Track program will be submitted by July 1 after the completion of the student's junior year. Applications submitted after that time will be evaluated on a case by case basis.
- Applicants must have a minimum undergraduate GPR of 3.0. Applicants must also earn a C or better in all Chemistry, Calculus and Physics courses. Once admitted to the program, students must maintain a minimum 3.0 GPR.
- A faculty advisor will be assigned to each student. Students may seek additional mentors, but a formal committee is not required.
- Students admitted into the Fast Track program must finish the entire 150 credit hours to obtain both the Bachelor's and Master's degrees. These students will be conferred with two degrees once they complete the 5th year of the concurrent program.
- Students admitted to the program will change from U4 to G7 status when they are admitted having completed at least 96 hours (end of spring semester, year 3).
- Students not accepted or not allowed to continue with the Fast Track Program will complete the 120 hour Bachelor's degree under the standard 4 year curriculum. These students may still apply to the traditional graduate program.

Students will graduate at the completion of the 5th year in the Fast Track Program coursework (150 credit hours) with both Bachelor's and Master's degrees. Students will complete the coursework in May of the 5th year.

Program Requirements

First Year

<table>
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<tr>
<th>Fall</th>
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<tr>
<td>GEOL 104</td>
<td>Physical Geology</td>
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<td>CHEM 101</td>
<td>Fundamentals of Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 111</td>
<td>and Fundamentals of Chemistry Laboratory I</td>
</tr>
<tr>
<td>TH 151</td>
<td>Engineering Mathematics I</td>
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<tr>
<td>ENGL 104</td>
<td>Composition and Rhetoric</td>
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Term Semester Credit Hours 15

Second Year

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<td>GEOL 203</td>
<td>Mineralogy</td>
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<td>GEOL 311</td>
<td>Principles of Geological Writing</td>
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<td>GEOP 341</td>
<td>Global Geophysics</td>
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<td>PHYS 218</td>
<td>Mechanics</td>
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<td>MATH 251</td>
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Term Semester Credit Hours 15

Spring

| GEOL 302 | Introduction to Petrology | 4 |
| GEOL 306 | Sedimentology and Stratigraphy | 4 |
| PHYS 208 | Electricity and Optics | 4 |
| Government/Political science | 3 |
| MATH 308 | Differential Equations | 3 |

Term Semester Credit Hours 18

Third Year

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<td>GEOL 305</td>
<td>Paleobiology</td>
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<td>GEOL 309</td>
<td>Introduction to Geological Field Methods</td>
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<td>American history</td>
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Term Semester Credit Hours 12

Spring

| GEOL 304 | Igneous and Metamorphic Petrology | 4 |
| GEOL 312 | Structural Geology and Tectonics | 4 |
| GEOL Elective | 1 |
| GEOL Elective | 1 |

Term Semester Credit Hours 17

Summer

| GEOL 300 | Field Geology | 6 |

Term Semester Credit Hours 6

Fourth Year

<table>
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Term Semester Credit Hours 6
### Social and behavioral sciences

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<td>Ocean Observing Systems 4</td>
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<td>Physical Oceanography 4</td>
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<tr>
<td>Communicating Ocean Science</td>
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**Term Semester Credit Hours:** 15

### Fifth Year

#### Fall

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<td>Advanced specialized OCNG course</td>
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**Term Semester Credit Hours:** 9

### Spring

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<tr>
<td>Advanced specialized OCNG course</td>
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<td>Oceanography 640 Experience</td>
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**Term Semester Credit Hours:** 9

### Total Semester Credit Hours:

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1. Any of the required courses may be taken during the Summer Sessions to diminish the heavy semester loads during Years Two and Three.

2. A second W course is required. GEOL 312 is offered as a W option when taught by Dr. Julie Newman, and other GEOL electives also fulfill the W requirement (including GEOL 491 when arranged with the permission of the instructor).

3. Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g., OCNG 410/OCNG 608, OCNG 443/OCNG 643/OCNG 440). Graduate courses will be taken for dual undergraduate/graduate credit.

### Admission Process

- **Applicants:** End of junior year after 6 semesters; minimum GPA = 3.0.
- **Decision:** August prior to starting graduate course work in Fall of Senior.
- **Change to graduate status:** Fall of Senior.
- **Apply for graduate degree:** Plan upon approval at GT status.
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Transfer:

Overall Course Information
- Overall GPA: [Value]
- Program GPA: [Value]

Program Evaluation:

This is NOT an official evaluation.

Changie Student

Viewing: Degree Evaluation (Degree), (Email)

OCT 16, 2015 10:54 AM
Roxanne R. Russell

Detari Requirements

10/20/2015
unofficial evaluation

Total Credits and GPA 0.000 0.00

Select 3 hours from any courses with the Communication attribute (KCOM).
No AND B.
Communication Flag Hits
No AND A.
ENG 140
No
Met Condition Rule Subject Attribute Low HIgh Required Credits Required Courses
Term Subject Course Title Attribute Credits Grade Source
Area: Communication (6.000 credits) - Not Met

unofficial evaluation

Total Credits and GPA 0.000 0.00

Two of these will be the dual credit GED level courses taken in your fall.
advisor (ED)
Any course with an engineering course that requires the degree with approval of an academic
Met Condition Rule Subject Attribute Low HIgh Required Credits Required Courses
Term Subject Course Title Attribute Credits Grade Source
Area: Supporting coursework (1.000 credits) - Not Met

unofficial evaluation

Total Credits and GPA 0.000 0.00

To be selected in consultation with academic advisor.
No AND 1.
Geology Elective Arts
No AND 2.
Geop 311
No AND 3.
Geop 451
No AND 4.
Geop 312
No AND 5.
Geop 305
No AND 6.
Geop 304
unofficial evaluation

Select three hours from any course with the Creative Arts attribute (CAA).

A. 

Met Condition: Rule Subject Attribute Law High Required Credits Required Courses Required Credits

Area: Creative Arts (3.000 credits) - Not Met

unofficial evaluation

Select any course with the Language, Philosophy and Culture attribute (LPC).

A. 

Met Condition: Rule Subject Attribute Law High Required Credits Required Courses Required Credits

Area: Language, Philosophy and Culture (3.000 credits) - Not Met

unofficial evaluation

Met Condition: Rule Subject Attribute Law High Required Credits Required Courses Required Credits

Area: Life and Physical Sciences (1.600 credits) - Not Met

unofficial evaluation

Met Condition: Rule Subject Attribute Law High Required Credits Required Courses Required Credits

Area: Social Sciences (1.000 credits) - Not Met

unofficial evaluation
Total Credits and GPA 0.00

unofficial evaluation

Select any 300-400 level course.
AND
A. Residence 300-499 Shrs.
B. Select from CSEOL 300-999 and GEOL 400-499.

unofficial evaluation

A. A minimum of 15 hours of 300-400 level coursework must be completed at Texas A&M University.
B. 12 hours must be in the major field.
C. A minimum of 30 hours must be in the major field.
D. A minimum of 6 hours must be in the major field.

unofficial evaluation

Total Credits and GPA 0.00

unofficial evaluation

Translation: A minimum of 30 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field. A minimum of 30 hours must be in the major field. A minimum of 6 hours must be in the major field.

unofficial evaluation

Total Credits and GPA 0.00

unofficial evaluation

Translation: A minimum of 30 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field. A minimum of 30 hours must be in the major field. A minimum of 6 hours must be in the major field.
23 October 2015

MEMORANDUM

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences
To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences

From: Dr. Debbie Thomas, Department Head, Oceanography
Dr. Michael Pope, Department Head, Geology and Geophysics

RE: Revisions to catalog degree requirements for the Joint degree program between Oceanography and the Geology BS program

I have attached a revision to the Fast Track 3+2 program for BS GEOL and the non-thesis MS in Oceanography. It has been modified to fix the errors in the catalog degree requirements and in the degree evaluation.

Catalog changes include:

First Year Fall
- Remove GEOS First year seminar and change the semester hours from 16 to 15.

First Year Spring
- Communications elective

Second Year Spring
- Showing the American History elective correctly as ‘American History or Government/Political Science Elective’

Third Year Fall
- Swap GEOL 309 (3 cr) with GEOL 304 (4 cr) (from spring semester) and change the semester credit hours from 15 to 16.
- Replace Government/Political Science elective with Language/Philosophy/Culture elective
- Showing the American History elective correctly as ‘American History or Government/Political Science Elective’
- Removing the old footnote references.

Third Year Spring
- Swap GEOL 304 (4cr) with GEOL 309 (3 cr) (from fall semester) reducing the semester credit hours by 1.
- Include the 4 credits from the GEOL elective, increasing the new total by 4 credits.
- The total credits for this semester go from 14 to 17
- Add the word elective to the creative arts elective

Fourth Year Fall

O&M Building, Room 1204
3146 TAMU
College Station, TX 77843-3146

Tel: 979.845.7211 Fax 979.845.6331

RECEIVED
NOV 06 2015
CURRICULAR SERVICES
• Change OCNG 430 to technical elective

Fourth Year Fall
• Showing the American History elective correctly as ‘American History or Government/Political Science Elective’
• Move OCNG 603 to the spring semester. Replace with choosing one of the fundamental graduate OCNG courses (OCNG 620, OCNG 630 or OCNG 640)

Fourth Year Spring
• Replace h Language/Philosophy/Culture elective with American History or Government/Political Science Elective
• Replacing OCNG 620 with OCNG 603 Communicating Ocean Science
• Replace OCNG 640 with choosing one of the fundamental graduate OCNG courses (OCNG 620, OCNG 630 or OCNG 640).

Total Four year hours
• Correcting the total credits for four years to 132. There are 12 credit hours that are graduate only in the fourth year along with 6 credit hour of dual graduate/undergraduate credit.

Fifth Year Spring
• Correcting the Capstone Experience to the actual course ONG 661 Advanced Oceanographic Data Analysis and Communication

Correct footnotes are:

1 Students may take any of these course in the summer to reduce the heavy semester loads.

2 A second W course is required. GEOL 312 is offered as a W option when taught by Dr. Julie Newman, and other GEOL electives also fulfill the W requirement (including GEOL 491 when arranged with the permission of the instructor).

3 Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g. OCNG 440/OCNG 640).

4 Two graduate courses will be taken for dual undergraduate/graduate credit and will contribute to the minor.

Corrections to the Degree Evaluation include:

Life and Physical Sciences
• Added the labs for CHEM (111 and 112) to maintain the 16 credit hours

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; sylvon-lewis@tamu.edu).
CHANGE IN CURRICULUM

COLLEGE OF GEOSCIENCES
DEPARTMENT OF GEOLOGY AND GEOPHYSICS
BS IN METEOROLOGY AND MS IN OCEANOGRAPHY 3+2
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: ✓Undergraduate ✓Graduate □First Professional (ex., DVM, JD, MD, etc)

2. Request change for: ✓Degree Program □Minor □Certificate

3. Request submitted by (Department or Program Name): Oceanography

4. Program Designation and Name (e.g., B.A. in History, Minor in History, Certificate in European Union): Meteorology - 5-Year Bachelor of Science/Master of Science in Oceanography

5. Brief description of change:
Adjust the catalog program requirements to match the degree evaluation and clarify options for students

Includes change to GR program (attached). sw

6. Rationale for change:
There were errors associated with the entering of the program requirements into the new electronic catalog. These need to be corrected.

Use the checkboxes below to make sure that all information is included.

a. Proposed curriculum attached. ✓Yes □No
b. Current catalog curriculum with handwritten edits attached. ✓Yes □No
c. Current Howdy degree evaluation with handwritten edits attached. ✓Yes □No

Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? □Yes ✓No
b. If yes, degree program hours will change from: ________ to: ________
c. If yes, is the Texas Higher Education Coordinating Board form attached?
   http://www.thecb.state.tx.us/index.cfm?objectid=AF9F7FA-9A92-4F11-2756AD3BBFF01D60 ✓Yes □No

9. If proposed changes affect other unit(s), are letters of support attached? ✓Yes □No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UCC/GC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:
Deborah Thomas
Department Head or Program Chair (Type Name & Sign)
Date

Chris Houser
Chair, College Review Committee
Date

Kate Miller
Dean of College
Date

Chair, GC or UCC
Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra.williams@tamu.edu
Curricular Services – 04/14

RECEIVED NOV 06 2015
CURRICULAR SERVICES
23 November 2015

MEMORANDUM

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences

To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences

From: Dr. Debbie Thomas, Department Head, Oceanography
Dr. Ping Yang, Department Head, Atmospheric Sciences
Dr. Michael Pope, Department Head, Geology and Geophysics
Dr. Christian Brannstrom, Director Environmental Programs, College of Geosciences

RE: Revisions to the BS-METR-GOC, BS-GEOL-GOC, BA-GEOL-GOC and BS-ENGS-GOC programs.

We are requesting revisions to the 3+2 programs combining the non-thesis MS in Oceanography with the undergraduate METR, GEOL and ENGS degrees. They have been modified to swap out the non-thesis MS in Oceanography with the newly approved non-thesis Master of Ocean Science and Technology. This is simply a swap in the designation of the non-thesis Master's degree.

The degree plans remain as modified in the by the corrections recently submitted for approval.

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
Meteorology - 5-Year Bachelor of Science/Master of Science in Oceanography

The Fast Track Program offers motivated and exceptional students the opportunity to achieve aspirations in an efficient program at Texas A&M, completing the Bachelor of Science degree in the Department of Atmospheric Sciences Meteorology Program and the Oceanography non-thesis M.S. degree in 5 years. There will be only two courses used for dual credit in this program. There is a total of 150 hours of coursework. The concurrent degree program will enable these motivated students to coordinate the required B.S. coursework (104 undergraduate credit hours and dual credit graduate classes) and non-thesis M.S. coursework (36 credit hours including the 8 dual credit graduate classes) to complete the required credit hours for each degree without diminishing scope or quality of work and within 5 years.

Application and Eligibility

- Applications to the Fast Track program will be submitted by July 1 after the completion of the student's junior year. Applications submitted after that time will be evaluated on a case by case basis.

- Applicants must have a minimum undergraduate GPR of 3.0. Applicants must also earn a C or better in all Chemistry, Calculus and Physics courses. Once admitted to the program, students must maintain a minimum 3.0 GPR.

- A faculty advisor will be assigned to each student. Students may seek additional mentors, but a formal committee is not required.

- Students admitted into the Fast Track program must finish the entire 150 credit hours to obtain both the Bachelor's and Master's degrees. These students will be conferred with two degrees once they complete the 5th year of the concurrent program.

- Students admitted to the program will change from U4 to G7 status when they are admitted having completed at least 99 hours (end of spring semester, year 3).

- Students not accepted or not allowed to continue with the Fast Track Program will complete the 120 hour Bachelor's degree under the standard 4 year curriculum. These students may still apply to the traditional graduate program.

- Students will graduate at the completion of the 5th year in the Fast Track Program coursework (150 credit hours) with both Bachelor's and Master's degrees. Students will complete the coursework in May of the 5th year.

Program Requirements

<table>
<thead>
<tr>
<th>Semester Credit Hours</th>
<th>Term Semester Credit Hours</th>
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<tbody>
<tr>
<td>First Year</td>
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<tr>
<td>Fall</td>
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<tr>
<td>ENGL 104, CHEM 101, MATH 171</td>
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<tr>
<td>or MATH 151, ENGL 104</td>
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<td>Second Year</td>
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<td>Fall</td>
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<tr>
<td>ATMO 203</td>
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<td>ATMO 363</td>
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<td>MATH 251, ATMO 321, CSCE 206</td>
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<td>Third Year</td>
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<tr>
<td>Fall</td>
<td></td>
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<tr>
<td>ATMO 335, ATMO 338, STAT 211</td>
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<tr>
<td>or MATH 152, MATH 308</td>
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<tr>
<td>or MATH 152, MATH 308</td>
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<td>General Elective</td>
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<td>American history</td>
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</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>15</td>
</tr>
</tbody>
</table>

Spring

- ATMO 203: Weather Forecasting Laboratory
- CHEM 102 & CHEM 112: Fundamentals of Chemistry II and Fundamentals of Chemistry Laboratory II
- MATH 172: Calculus
- PHYS 218: Mechanics

American history elective or Government/political science elective

Second Year

- Fall
- ATMO 251: Weather Observation and Analysis
- ATMO 363: Introduction to Atmospheric Chemistry and Air Pollution
- MATH 251: Engineering Mathematics III
- ATMO 321: Computer Applications in the Atmospheric Sciences

American History or Government/political science elective

General Elective

Spring

- ATMO 324: Physical and Regional Climatology
- MATH 308: Differential Equations
- PHYS 208: Electricity and Optics
- American history or Government/political science elective

Social and Behavioral Sciences elective

Third Year

- Fall
- ATMO 335: Atmospheric Thermodynamics
- ATMO 338: Atmospheric Dynamics
- STAT 211: Principles of Statistics
- or MATH 251: State and Local Government

General elective

Spring

- ATMO 435: Synoptic-Dynamic Meteorology
- or Technical electives

Communication electives

COMM 203: Public Speaking
COMM 205: Technical Presentations

American History or Government/political science elective
Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g. OCNG 440/OCNG 640).

A grade of C or better is required.

All students enter as Lower Level Meterology (METL) until completion of ATMO 335 and ATMO 336 and the associated prerequisite courses. Once students have completed these courses, their major will be changed to Upper Level Meterology (METR), and they will be eligible to take upper-level electives. This change should occur following Fall of the junior year.

Select in consultation with faculty academic advisor.

General electives may not include CAEN 101-499; CAEX 101-499; DEVS 101-499; ENGL 103; KINE 198-199; MATH 122, MATH 131, MATH 141-142, MATH 150-152, MATH 171-172, MATH 221, MATH 251, MATH 253; PHYS 101, PHYS 201-202, PHYS 208, PHYS 216-219; AERS 100-499; MLSC 100-499; NVSC 100-499; SAMS 100-499.

MLSC, NVSC and AERS courses can be used as general electives if a minor is completed in Military Science. See an academic advisor for more information.

Total undergraduate credit hours: 120
Total graduate credit hours: 36 (36 credits required for non-thesis MOST)
Total credits actually taken: 150

Any of the required courses may be taken during the Summer Session to diminish the heavy semester load during Fall and Spring terms.

If students use nine credits of allowed OCNG courses (e.g. OCNG 251 or OCNG 401, OCNG 252, OCNG 350, OCNG 451, OCNG 485) as technical electives and general electives, they will receive an OCNG minor with their BS in METR degree.

Graduate courses will be taken for dual undergraduate/graduate credit and will contribute to the minor and technical electives.

3 Recommend GEOS 101
This is NOT an official evaluation.

Transfer:

Other Course Information:
- Course Credit: 0.00
- Course Grade: 0.00
- Course Grade: 12.00

Required Courses:
- Course Credits: 0.00

Major:
- Degree: Bachelor of Science
- Major: Mathematics
- Concentration: Undergraduate
- Required as Core: Yes
- Required as Core: No
- Expected Graduation Date: Fall 2015 - College Station
- Evaluation Term: Fall 2015 - College Station

This is NOT an official evaluation.

Information for Degree Evaluation:

Degreerequirements

Change Student

Viewing: Degree Evaluation (Decentral, Email)

OC: 16, 2015 10:55 am
Roxanna R. Russell

10/19/2015
Select any course within the Language, Philosophy, and Culture attribute (LPC).  

Area: Language, Philosophy, or Culture (3.000 credits) - Not Met

Unofficial Evaluation

Total Credits and GPA 3.000 4.000

1. 4 hours required. Take CHEM 102 and 112.
2. 4 hours required. Take CHEM 102.

Select one of the following:

A. Chemistry 1A and 1B
B. PHYS 201
C. PHYS 215

Required Course Title Attribution Credit Source

Mathematics Requirement

Total Credits and GPA 3.000 4.000

E. STAB 211

Must make a grade of C or better.

Required: MATH 100

No and C.

required.

No and D.

SELECT FROM MATH 215 OR 172.

No and C.

Must make a grade of C or better.
Total Credits and GPA 0.000 0.000

unofficial evaluation

Subject PREREQUISITE

Area

unofficial evaluation

Total Credits and GPA 0.000 0.000

unofficial evaluation

Subject PREREQUISITE

Area

unofficial evaluation

Total Credits and GPA 0.000 0.000

unofficial evaluation

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unofficial evaluation

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Total Credits and GPA 0.000 0.000

unofficial evaluation

Subject PREREQUISITE

Area

unofficial evaluation

Total Credits and GPA 0.000 0.000

unofficial evaluation

Subject PREREQUISITE

Area
Print

Back to Display Options

unofficial evaluation

Select from AMH 100-199, CES 100-499.

A. Major GPA 2.4+ or

No Condition Rule Subject Attribute Low High Required Credits Required Courses Term Subject Course Title Attribute Credits Grade Source

Area: GPA-Major - Not Met

unofficial evaluation

Select any 300 or 400 level courses.

A. And

No

Residence Minimum 20 hours 300-499.

No

Residence-Major 32+ hours

No

Condition Rule Subject Attribute Low High Required Credits Required Courses Term Subject Course Title Attribute Credits Grade Source

Area: Residence Requirement - Not Met

unofficial evaluation

2. A two or more semester sequence of the same foreign language for University credit.
MEMORANDUM

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences

To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences

From: Dr. Debbie Thomas, Department Head, Oceanography
Dr. Ping Yang, Department Head, Atmospheric Sciences

RE: Revisions to catalog degree requirements for the Joint degree program between Oceanography and Atmospheric Sciences Meteorology program

I have attached a revision to the Fast Track 3+2 program for METR and the non-thesis MS in Oceanography. It has been modified to fix the errors in the catalog degree requirements. The degree evaluation remains the same.

Details of changes include:
First Year Fall
- Adding the course title for MATH 151 and including new footnote #1
- Replacing the GEOS 101 Introduction to the Geosciences course with a free elective and including footnotes #2 showing a list of allowable general electives and #3 indicating that GEOS 101 is recommended for this 1 credit course.

First Year Spring
- Adding the title for MATH 152 and including new footnote #1
- Showing the American History elective correctly as ‘American History or Government/Political Science Elective’

Second Year Fall
- Including the alternative allowed for ATMO 321 – should include ‘or CSCE 206 Structural Programming in C’
- Replacing POLS 206 with ‘American History or Government/Political Science Elective’
- Correcting the footnote references for the general elective to new #2 and #4.

Second Year Spring
- Removing reference to old footnote #1 from ATMO 324 and PHYS 208
- Showing the American History elective correctly as ‘American History or Government/Political Science Elective’
- Adding the word elective for the social and behavioral sciences elective.

Third Year Fall
- Correcting the footnote number for ATMO 335 and ATMO 336 to footnote #5 in the revised footnote list.
- Replacing POLS 207 with ‘American History or Government/Political Science Elective’
Correcting the footnote references for the general elective to new #2 and #4.

Third Year Spring
- Replacing the abbreviation ATMO with Atmospheric Sciences in the Atmospheric sciences or technical electives line and including the correct footnotes #6, #7 and #8 from the revised footnotes list
- Replacing communications elective with COMM 203 Public Speaking or COMM 205 Communication for Technical Professions
- Removing incorrect references to the old footnote #1.

Fourth Year Fall
- Replacing ATMO Remote Sensing elective with ATMO 441 Satellite Meteorology and Remote Sensing or ATMO 443 Radar Meteorology
- Replacing the abbreviation ATMO with Atmospheric Sciences in the Atmospheric sciences or technical electives line and including the correct footnotes #6, #7 and #8 from the revised footnotes list
- Correcting the footnotes to include #7, #8 and #9 on OCNG 604, OCNG 608 and the selection of a graduate fundamental course.

Fourth Year Spring
- Replacing the abbreviation ATMO with Atmospheric Sciences in the Atmospheric sciences or technical electives line and including the correct footnotes #6, #7 and #8 from the revised footnotes list.
- Removing the erroneous repeat of the line ‘Representation in Oceanography’ along with the incorrect 3 credits listed for it.
- Correcting the footnotes to include #8 and #9 on the selection of a graduate fundamental course.
- Correcting the total credits for this semester to 15

Total Four year hours
- Correcting the total credits for four years to 132

Fifth Year Fall
- Making the word course plural
- Correcting the Capstone Experience to the actual course ONG 661 Advanced Oceanographic Data Analysis and Communication

Correct footnotes are:

1 A grade of C or better is required.

2 General electives may not include CAEN 101-499; CAEX 101-499; DEVS 101-499; ENGL 103; KINE 198-199; MATH 102, MATH 131, MATH 141-142, MATH 150-152, MATH 171-172, MATH 221, MATH 251, MATH 253; PHYS 101, PHYS 201-202, PHYS 208, PHYS 218-219; AERS 100-499; MLSC 100-499; NVSC 100-499; SOMS 100-499

3 GEOS 101 is recommended

4 MLSC, NVSC and AERS courses can be used as general electives if a minor is completed in Military Science. See an academic advisor for more information.
5 All students enter as Lower Level Meterology (METL) until completion of ATMO 335 and ATMO 336 and the associated prerequisite courses. Once students have completed these courses, their major will be changed to Upper Level Meterology (METR), and they will be eligible to take upper-level electives. This change should occur following Fall of the junior year.

6 Select in consultation with faculty academic advisor.

7 If students use nine credits of allowed OCNG courses (e.g. OCNG 251 or OCNG 401, OCNG 252, OCNG 350, etc) as technical electives and general electives, they will receive an OCNG minor with their BS in METR degree.

8 Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g. OCNG 440/OCNG 640).

9 Two graduate courses will be taken for dual undergraduate/graduate credit and will contribute to the minor.

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
CHANGE IN CURRICULUM

COLLEGE OF GEOSCIENCES
DEPARTMENT OF OCEANOGRAPHY
BS IN ENVIRONMENTAL GEOSCIENCES
AND MS IN OCEANOGRAPHY 3+2
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: 
   ✑ Undergraduate ✑ Graduate ☐ First Professional (e.g., DVM, JD, MD, etc.)

2. Request change for: 
   ✑ Degree Program ☐ Minor ☐ Certificate
   Oceanography

3. Request submitted by (Department or Program Name):
   Environmental Geosciences - 5-Year Bachelor of Science/Master of Science

4. Program Designation and Name (e.g., B.A. in History, Minor in History, Certificate in European Union):

5. Brief description of change:
   Adjust the catalog program requirements to match the degree evaluation and clarify options for students

   Includes change to GR program (attached). sw

6. Rationale for change:
   There were errors associated with the entering of the program requirements into the new electronic catalog. These need to be corrected. A few corrections were also made to the degree evaluation.

Use the checkboxes below to make sure that all information is included.

7. a. Proposed curriculum attached. 
   ✔ Yes ☐ No

   b. Current catalog curriculum with handwritten edits attached.
   ✔ Yes ☐ No

   c. Current Howdy degree evaluation with handwritten edits attached.
   ✔ Yes ☐ No

   Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? 
   ☐ Yes ☑ No

   b. If yes, degree program hours will change from: _________ to: _________

   c. If yes, is the Texas Higher Education Coordinating Board form attached? 
   ☐ Yes ☑ No

   http://www.thecb.state.tx.us/index.cfm?objectid=A0F9F7FA-9A92-4F11-2756AD3BBFF01D60

9. If proposed changes affect other unit(s), are letters of support attached? 
   ✔ Yes ☐ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UCCGC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:

[Signature]
11/2/2015

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

Dean of College

[Signature]
10/30/2015

Chair, College Review Committee Date

Chair, GC or UCC

[Signature]
[Date]

CURRICULAR SERVICES

Questions regarding this form should be directed to Curricular Services at 845-6201 or sandra.williams@tamu.edu
Curricular Services - 04/14
COLLEGE OF GEOSCIENCES  
DEPARTMENT OF OCEANOGRAPHY  

23 November 2015  

MEMORANDUM  

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences  
To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences  
From: Dr. Debbie Thomas, Department Head, Oceanography  
Dr. Ping Yang, Department Head, Atmospheric Sciences  
Dr. Michael Pope, Department Head, Geology and Geophysics  
Dr. Christian Brannstrom, Director Environmental Programs, College of Geosciences  

RE: Revisions to the BS-METR-GOC, BS-GEOL-GOC, BA-GEOL-GOC and BS-ENGS-GOC programs.  

We are requesting revisions to the 3+2 programs combining the non-thesis MS in Oceanography with the undergraduate METR, GEOL and ENGS degrees. They have been modified to swap out the non-thesis MS in Oceanography with the newly approved non-thesis Master of Ocean Science and Technology. This is simply a swap in the designation of the non-thesis Master’s degree.  

The degree plans remain as modified in the by the corrections recently submitted for approval.  

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
Environmental Geosciences - 5-Year Bachelor of Science/Master of Science in Oceanography

The Fast Track Program offers motivated and exceptional students the opportunity to achieve aspirations in an efficient program at Texas A&M, completing the Bachelor of Science (B.S.) degree in the Environmental Geosciences program and the Oceanography non-thesis M.S. degree in 5 years. There will be only two courses used for dual credit in this program. There is a total of 160 hours of coursework. The concurrent degree program will enable these motivated students to coordinate the required B.S. coursework (43 undergraduate credit hours plus 6 dual credit graduate courses) and non-thesis M.S. coursework (38 credit hours including the 6 dual credit graduate courses) to complete the required credit hours for each degree without diminishing scope or quality of work and within 5 years.

Application and Eligibility:

- Applications to the Fast Track program will be submitted by July 1 after the completion of the student's junior year. Applications submitted after that time will be evaluated on a case by case basis.
- Applicants must have a minimum undergraduate GPR of 3.0; Applicants must also earn a C or better in all Chemistry, Calculus and Physics courses. Once admitted to the program, students must maintain a minimum 3.0 GPR.
- A faculty advisor will be assigned to each student. Students may seek additional mentors, but a formal committee is not required.
- Students admitted into the Fast Track program must finish the entire 150 credit hours to obtain both the Bachelor's and Master's degrees. These students will be conferred with two degrees once they complete the 5th year of the concurrent program.
- Students admitted to the program will change from U4 to G7 status when they are admitted having completed at least 90 hours (end of spring semester, year 3).
- Students not accepted or not allowed to continue with the Fast Track Program will complete the 120 hour Bachelor's degree under the standard 4 year curriculum. These students may still apply to the traditional graduate program.
- Students will graduate at the completion of the 5th year in the Fast Track Program coursework (150 credit hours) with both Bachelor's and Master's degrees. Students will complete the coursework in May of the 5th year.

Program Requirements

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<tr>
<th>First Year</th>
<th>Semester Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
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<tr>
<td>GEOS 105</td>
<td>Introduction to Environmental Geoscience</td>
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<td>BIOL 111</td>
<td>Introductory Biology I</td>
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<td>MATH 161</td>
<td>Engineering Mathematics I</td>
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<td>Composition and Rhetoric</td>
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<td>GEOS 101</td>
<td>Introduction to the Geosciences</td>
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<td>Term Semester Credit Hours</td>
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<thead>
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<td>POLS 208</td>
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<tr>
<td>BIOL 112</td>
<td>Introductory Biology II</td>
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<tr>
<td>MATH 162</td>
<td>Engineering Mathematics II</td>
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<td>Language, philosophy and culture</td>
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<tr>
<td></td>
<td>Term Semester Credit Hours</td>
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<table>
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<th>Second Year</th>
<th>Semester Credit Hours</th>
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<td>Fall</td>
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<td>Select one of the following:</td>
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<tr>
<td>ATM 201</td>
<td>Weather and Climate</td>
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<tr>
<td>&amp; ATM 202</td>
<td>and Weather and Climate Laboratory</td>
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<td>GEOG 203</td>
<td>Planet Earth</td>
</tr>
<tr>
<td>&amp; GEOG 213</td>
<td>and Planet Earth Lab</td>
</tr>
<tr>
<td>GEOL 101</td>
<td>Principles of Geology</td>
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<td>OCN 251</td>
<td>Oceanography</td>
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<tr>
<td>&amp; OCN 262</td>
<td>and Oceanography Laboratory</td>
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<td>CHEM 101</td>
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<td>and Fundamentals of Chemistry Laboratory</td>
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<td>Introduction to Human Geography</td>
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<td>American history</td>
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Environmental Policy Elective

Select one of the following: in consultation with advisor | 3 |

| PO 390      | Environmental and Natural Resource Economics | 3 |
| BESC 207    | U.S. Environmental Regulations | 3 |
| ECON 203    | Principles of Economics | 3 |
| ECON 204    | Principles of Economics | 3 |
| ECON 323    | Microeconomic Theory | 3 |
| ECON 435    | Economics of Resource Scarcity | 3 |
| GEOG 304    | Economic Geography | 3 |
| GEOG 308    | Introduction to Urban Geography | 3 |
| GEOG 309    | Geography of Energy | 3 |
| GEOG 404    | Political Geography | 3 |
| GEOG 456    | Geographic Perspectives on Contemporary Urban Issues | 3 |
| GEOG 430    | Environmental Justice | 3 |
| PHIL 314    | Environmental Ethics | 3 |
| PO 347      | Politics of Energy and the Environment | 3 |
| RENR 470    | Environmental Impact Assessment | 3 |
| SOC 230     | Environmental Sociology | 3 |
| URPN 202    | Building Better Cities | 3 |
| URPN 380    | Issues in Environmental Quality | 3 |
| URPN 371    | Environmental Health Planning and Policy | 3 |
| URPN 480    | Sustainable Communities | 3 |

Select one of the following: | 4 |
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<tr>
<th>Fall 211</th>
<th>Spring 212</th>
<th>Fall 213</th>
<th>Spring 214</th>
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</thead>
<tbody>
<tr>
<td>STAT 211: Statistical Methods I</td>
<td>Physical Oceanography</td>
<td>ATM 201: Weather and Climate</td>
<td>ECN 201: Principles of Economics</td>
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<td>Ocean Science</td>
<td>Environmental Geoscience</td>
<td>Microeconomics Theory</td>
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<td>OCNS 201: Physical Oceanography</td>
<td>Principles of Geoscience</td>
<td>Environmental Economics</td>
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<td>GEOL 301: Resources and the Environment</td>
<td>OCNS 202: Ocean Observing Systems</td>
<td>Principles of Geoscience</td>
<td>Environmental Planning and Policy</td>
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<td>GEOL 302: Coastal and Marine Environments theme elective</td>
<td>OCNS 203: Physical Oceanography</td>
<td>Environmental Geoscience</td>
<td>Environmental Policy and Planning</td>
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Note: The table is incomplete and some courses are missing or unclear.
Environmental Geosciences - 5-Year Bachelor of Science/Master of Science in Oceanography

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<tr>
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<tr>
<td>GEOG 460</td>
<td>Field Geography</td>
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<td>GEOG 462/</td>
<td>Advanced GIS Analysis for Natural Resources</td>
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<td>ESRM 462</td>
<td>Resources Management</td>
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<td>GEOG 467</td>
<td>Dynamic Modeling of Earth and Environmental Systems</td>
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<td>Advanced Topics in GIS (Geographic Information Systems)</td>
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<td>GEOG 476</td>
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<td>GEOL 400</td>
<td>Geologic Field Trips</td>
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<td>GEOG 451</td>
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<td>OCNG 413</td>
<td>Near-surface Geophysics</td>
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<td>OCNG 451</td>
<td>Mathematical Modeling of Ocean Climate</td>
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**Term Semester Credit Hours:** 18

**Total Semester Credit Hours:** 132

### Fifth Year

#### Fall Semester

<table>
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**Term Semester Credit Hours:** 9

**Total Semester Credit Hours:** 18

1. Freshmen entering the program take a first year seminar, GEOS 101. The choice is not restricted. Students transferring or changing majors into the program, who have not taken GEOS 101, are required to take GEOS 481 in their junior or senior year.

2. It is recommended to select a course that fulfills an International and Cultural Diversity requirement.

3. Select from course list below. If students use nine credits of allowed OCNG courses (e.g., OCNG 401, OCNG 360, OCNG 461, OCNG 485) as Coastal and Marine Environments theme electives, they will receive an OCNG minor with their BS in ENGS degree. If one of the Introductory Geoscience course and associated labels listed in Year Two is OCNG 251 with OCNG 252, then only two (six credits) of the theme electives needs to be from OCNG to still get the minor.

4. Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g., OCNG 440/OCNG 640; GEOS 470/OCNG 867).

8. These two graduate courses will be taken for dual undergraduate/graduate credit and will contribute to the minor.

---

Coastal and Marine Environments Theme List

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>GEOG 370</td>
<td>Coastal Processes</td>
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<td>MARS 370</td>
<td>Interdisciplinary Oceanography</td>
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Select the remaining courses from the following:

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<td>GEOG 360</td>
<td>Natural Hazards</td>
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<td>GEO 306</td>
<td>Sedimentology and Stratigraphy</td>
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<td>GEO 440</td>
<td>Engineering Geology</td>
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<td>GEOS 444</td>
<td>The Science and Politics of Global Climate Change</td>
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<td>GEOS 484</td>
<td>Internship</td>
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<td>OCNG 350</td>
<td>Marine Pollution</td>
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<td>OCNG 410</td>
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<td>Introduction to Biological Oceanography</td>
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<td>Introduction to Chemical Oceanography</td>
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<td>WFSC 418</td>
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<td>WFSC 428</td>
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Two courses in the degree plan must be writing intensive courses designated by the Environmental Programs in the schedule of classes. Also, international and cultural diversity electives (6 hours) must be incorporated into the degree.

Any of the required courses may be taken during the summer sessions to diminish the heavy semester loads during Years 2 and 3.
Detail Requirements

Information for Degree Evaluation
This is NOT an official evaluation.

Program Evaluation

Limitation: Correspondence: No more than 12 hours of correspondence earned through an accredited institution may be used for an undergraduate degree.

Limitation: Combination: Maximum combination of 18 hours of 481, 482, 485 and/or 491 courses may be used for an undergraduate degree.

Limitation: No more than 6 hours of 484 credit may be used in this degree program.

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<td>College Station</td>
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Catalog Term: Fall 2015 - College Station
Evaluation Term: Fall 2015 - College Station
Expected Graduation Date:
Request Number: 5
Results as of: Oct 16, 2015
Minors:
Concentrations:

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This is NOT an official evaluation.

Area: Major Coursework (16.000 credits) - Not Met

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Area: Environmental Theme Electives (18.000 credits) - Not Met

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unofficial evaluation

Area: Communication (6.000 credits) - Not Met

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unofficial evaluation
unofficial evaluation

**Area: Mathematics (11,000 credits) - Not Met**

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Total Credits and GPA 0.000 .00

unofficial evaluation

**Area: Life and Physical Sciences (28,000 credits) - Not Met**

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Total Credits and GPA 0.000 .00

unofficial evaluation
### Area: Language, Philosophy & Culture (3.000 credits) - Not Met

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Select any course with the Language, Philosophy and Culture attribute [KLPC].

Total Credits and GPA: 0.000 .00

unofficial evaluation

### Area: Creative Arts (3.000 credits) - Not Met

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<th>Condition</th>
<th>Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td></td>
<td>Creative Arts Requirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select three hours from any course with the Creative Arts attribute [KCRA].

Total Credits and GPA: 0.000 .00

unofficial evaluation

### Area: Social and Behavioral Science (3.000 credits) - Not Met

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td></td>
<td>GEOG 201</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

unofficial evaluation

### Area: Citizenship (12.000 credits) - Not Met

Description: Completion of 4 semesters of Upper-Level ROTC may be substituted for 3 hours of American History and 3 hours of Political Science.

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td></td>
<td>American History Rqmt 6hrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select from any course with the [KHIS] attribute.

| No  | AND | B.  | Political Science Rqmt 6hrs |    |      |                  |                  |      |         |              |           |         |       |        |

Take POLS 206 and POLS 207.

Total Credits and GPA: 0.000 .00

unofficial evaluation
**Area: Work Not Applied - Met**

**Description:** See advisor for acceptable substitutions.

**Met**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Courses not applied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits and GPA:** 0.000 .00

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**unofficial evaluation**

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**Area University Writing Requirement - Not Met**

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Writing Requirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Two courses required.</td>
<td>Only sections of ATMO 456, 459, 463, 491; GEOG 309, 324, 360, 404, 430, 435, 476, 491; GEOL 301, 311-312, 410-420, 440, 491; GEOP 491; GEOS 405, 491; UGST 491 with the Writing attribute [UWRT] may be used to satisfy this requirement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits and GPA:** 0.000 .00

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**unofficial evaluation**

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**Area Int'l & Cult Diversity - Not Met**

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Int'l &amp; Cultural Diversity 6hr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Select from courses with the International and Cultural Diversity attribute [UICD] (except sections of BUSN 289 with the UWRT attribute).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits and GPA:** 0.000 .00

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**unofficial evaluation**

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**Area: Foreign Language - Not Met**

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
<th>Low</th>
<th>High</th>
<th>Required Credits</th>
<th>Required Courses</th>
<th>Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Foreign Language Rqmt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete one of the following:</td>
<td>1. Two years of the same foreign language in High School. 2. A two semester sequence of the same foreign language for University credit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits and GPA:** 0.000 .00
unofficial evaluation

Area: Residence Requirement - Not Met

Description: A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&M University. 12 hours must be in the major field.

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A. Residence Major 12hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select from AGEC 350; BESC 367; ECON 323, 435; GEOG 304, 309, 330, 350, 401, 406, 430; GEOL 420; GEOS 401, 405, 470, 481; POLS 347; RENR 470; SOCI 328; URPN 360, 371, 460.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>AND B. Residence 300-499 24hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select any 300 or 400 level courses.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits and GPA 0.000 .00

unofficial evaluation

Area: GPR-Major - Not Met

<table>
<thead>
<tr>
<th>Met</th>
<th>Condition Rule Subject Attribute Low High Required Credits</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>A. Major GPR 27hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes ATMO 201, 202; GEOG 201, 203, 213, 330; GEOL 101, 104, 420; GEOS 101, 105, 405, 470, 481; OONG 251, 252, 657.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Credits and GPA 0.000 .00

unofficial evaluation

Back to Display Options
23 October 2015

MEMORANDUM

To: Dr. Chris Houser, Associate Dean, Undergraduate and Faculty Affairs, College of Geosciences

To: Dr. Eric Riggs, Assistant Dean, Graduate Affairs and Diversity, College of Geosciences

From: Dr. Debbie Thomas, Department Head, Oceanography
       Dr. Christian Brannstrom, Director, Environmental Programs

RE: Revisions to catalog degree requirements for the Joint degree program between Oceanography and Environmental Geosciences program

I have attached a revision to the Fast Track 3+2 program for ENGS and the non-thesis MS in Oceanography. It has been modified to fix the errors in the catalog degree requirements and degree evaluation.

Catalog changes include:
Second Year Spring
- Add the communications elective increasing the semester credit hours from 14 to 17
- Replace the technical elective with a Theme Elective
Third Year Fall
- Replace STAT 303 Statistical Methods with STAT 211 Statistical Methods I.
Third Year Spring
- Replace the theme elective with GEOS 470 Data Analysis Methods in Geosciences. This is normally required for ENGS majors.
Fourth Year Spring
- Add theme elective increasing the semester credit hours from 15 to 18
Total Four year hours
- Correcting the total credits for four years to 132. There 12 graduate only credit hours in the fourth year along with 6 hours of dual graduate/undergraduate credit. Any 600 level OCNG course can be used for the dual credit.
Fifth Year Spring
- Correct the Capstone Experience to the actual course ONG 661 Advanced Oceanographic Data Analysis and Communication

Degree Evaluation edits include:
- Program: BS ENGS GOC Program. I think this is supposed to be a GOC program like the other 3 3+2 programs. Oceanography has with undergraduate majors in the College of Geosciences.
Supporting Coursework
- Technical Electives are reduced to 7 hours to reflect the move of GEOG 390 to required.
- Add URPN 361 as a policy elective option.

Environmental Theme Electives
- Remove OCNG 401, OCNG 604 and OCNG 608 as required.
- Change electives to 15 hours
- Include any 300 or 400 level OCNG course.
- Add statement for dual credit graduate courses. "6 hours will come from two dual credit OCNG 600-679 courses.

Mathematics
- Change STAT 303 to STAT211
- Remove the must make a grade of ‘C’ or better requirements from the degree evaluation

Life and Physical Sciences
- Remove the must make a grade of ‘C’ or better requirements from the degree evaluation

If you have any questions, please contact the assistant department head, Dr. Shari Yvon-Lewis (979-458-1816; syvon-lewis@tamu.edu).
Special Consideration

Items
MEMORANDUM

To: TAMU Engineering Graduate Instruction Committee (GIC)
From: Dr. V. Jorge Leon, Allen-Bradley Professor
       ETID Associate Department Head for Graduate Programs

Date: October 20, 2015
RE: Vote for Approval Request: Master of Engineering in Technical Management

The Engineering Technology and Industrial Distribution Department respectfully requests the inclusion of the attached proposal for a new Master of Engineering in Technical Management Program, and corresponding GIC vote of approval for the creation of the program, on the October 28th, 2015 Meeting of the GIC.

Following University Rule 11.99.99.M3, Curricular Processes and Substantive Changes (http://rules-saps.tamu.edu/PDFs/11.99.99.M3.pdf), attached are the following documents for your consideration:

1. Required Forms
   a. Briefing and Minute Order
   b. Program Review Outline
   c. New Program Request Form
   d. Cover/Signature Page (For Engineering (CIP code 14) and programs > 2 Million new cost)
   e. Program Checklist

2. Additional information
   a. Letters of Support

For convenience, the documents have been compiled into a single file, with each document separated by a title page.

Please contact Dr. Leon, at jleon@tamu.edu, or (979) 845-4993 if you have any questions about the contents of the memorandum.

cc. Reza Langari, ETID Department Head
Briefing and Minute Order

Proposal: Master of Engineering in Technical Management
AGENDA ITEM BRIEFING

Submitted by: XXXXXXXXXXXXXX, President/CEO
Texas A&M University

Subject: Approval of a New Master of Engineering Degree Program with a Major in Technical Management and Authorization to Request Approval from the Texas Higher Education Coordinating Board

Proposed Board Action:

Approve the establishment of a new degree program at Texas A&M University leading to a Master of Engineering in Technical Management, authorize the submission of this degree program to the Texas Higher Education Coordinating Board (THECB) for approval and certify that all applicable THECB criteria have been met.

Background Information:

The Master of Engineering Technical Management is a distance-learning professional graduate program for early career technical professionals. This rigorous program is industry-oriented, and relevant to manufacturing, energy, process and related industrial channels. The program targets early engineering and technical professionals and allows them to become future leaders in technical management positions, while continuing to work in their companies. The program’s curriculum, carefully crafted in consultation with industrial leaders, provides a unique blend of industry-critical skills in managing people, projects and profitability. The curriculum is 20%, 60% and 20%, analytical, technical management and capstone project, respectively. The graduates of this program will meet industry needs for qualified technical managers and leaders resulting from the expected industrial growth in the short- and medium-term future.

A&M System Funding or Other Financial Implications:

The estimated 5-year cost for this program is $1,997,844 and the 5-year revenue is $3,574,960. Special item request is not requested.
Agenda Item No.

TEXAS A&M UNIVERSITY
Office of the President
Date of Submission

Members, Board of Regents
The Texas A&M University System

Subject: Approval of a New Master of Engineering Degree Program in Technical Management, and Authorization to Request Approval from the Texas Higher Education Coordinating Board

I recommend adoption of the following minute order:

"The Board of Regents of The Texas A&M University System approves the establishment of a new degree program at Texas A&M University leading to Master of Engineering degree in Technical Management.

The Board also authorizes submission of Texas A&M University’s new degree program request to the Texas Higher Education Coordinating Board for approval and hereby certifies that all applicable criteria of the Coordinating Board have been met."

Respectfully submitted,
(CEO’s SIGNATURE)
CEO’s Name, Title

(One or two spaces)
Approval Recommended:
(Three spaces)

John Sharp
Chancellor

Ray Bonilla
General Counsel

Billy Hamilton
Executive Vice Chancellor and Chief Financial Officer

James R. Hallmark, Ph.D.
Vice Chancellor for Academic Affairs
Program Review Outline

Proposal: Master of Engineering in Technical Management
Texas A&M University

Master of Engineering
with a major in Technical Management
(CIP 14.0101.00)

Program Review Outline

BACKGROUND & PROGRAM DESCRIPTION

Administrative Unit: College of Engineering, Engineering Technology and Industrial Distribution

The Master of Engineering Technical Management (METM) is a distance-learning professional graduate program for early career technical professionals. This rigorous program is applied, focused, and relevant to manufacturing, energy, process and related industrial channels.

The program is designed to develop early engineering and technical professionals to become the future leaders in technical management positions. The program’s curriculum, carefully crafted in consultation with industrial leaders, provides a unique blend of industry-critical skills in managing people, projects and profitability.

METM is a 21 month, lock-step, part-time program, developed with a focus on technical professionals and designed for distance learning delivery. With students enrolled in cohorts, innovative and immersive learning experiences, such as a yearly residency week, and capstone projects, the program provides students and faculty a rich and high-contact, virtual learning-community.

The proposed implementation date is Fall 2017.

Texas A&M University certifies that the proposed new degree program meets the criteria under the 19 Texas Administrative Code, Section 5.45 in regards to need, quality, financial and faculty resources, standards and costs. New costs during the first five years will not exceed $2 million.

I. NEED

A. Employment Opportunities

The employment opportunities for graduates of the proposed METM is excellent as substantiated by the results of direct meetings with industry leaders, large scale survey, market research analysis, and strong letters of support from industry. Industry leaders participated in the definition of the program objectives and learning outcomes. The results of a large scale survey indicate that the skills of an METM graduate will close gaps present in the current workforce in specific critical skills, and that 70% of the
respondents would consider enrolling in the METM program if available. The market prospects for the METM are even more significant in Texas, were the employment growth (2012-2020) in engineering employment (approx. 24.5%) is stronger than the national average (approx. 7%).

B. Projected Enrollment

<table>
<thead>
<tr>
<th>Year</th>
<th>Change of Major/Transfers</th>
<th>New Students</th>
<th>Attrition</th>
<th>Graduation</th>
<th>Cumulative Headcount</th>
<th>Cumulative FTEs (New only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>12</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>11</td>
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<tr>
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<td>5</td>
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<td>25</td>
<td>2</td>
<td>18</td>
<td>42</td>
<td>42</td>
</tr>
</tbody>
</table>

*These numbers will dictate the projected formula income in the funding source portion in Section III.

C. Existing State Programs

The METM program-level educational objectives (PLO) were designed with direct input from industry leaders to overcome gaps in critical skills present in the current technical management workforce; thus, the uniqueness of METM’s focus and curriculum. Comparable programs in the state include:

<table>
<thead>
<tr>
<th>School</th>
<th>Program Name</th>
<th>Delivery</th>
<th>Student; class type</th>
<th>Main differences with proposed METM program</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAMU, College Station</td>
<td>ME in Technical Management</td>
<td>DL</td>
<td>PT; CO</td>
<td>PROPOSED PROGRAM</td>
</tr>
<tr>
<td>TAMU, College Station</td>
<td>MS in Engineering Systems Management</td>
<td>OC &amp; DL</td>
<td>FT &amp; PT; OE</td>
<td>• An MS program, rather than a professional, practice-oriented degree.</td>
</tr>
<tr>
<td>TAMU, College Station</td>
<td>ME in Construction Project Management</td>
<td>OC</td>
<td>FT; OE</td>
<td>• Focus on project management, rather than management</td>
</tr>
<tr>
<td>TAMU, College Station</td>
<td>MS in Systems &amp; Engineering Management</td>
<td>OC &amp; DL</td>
<td>PT &amp; FT; OE</td>
<td>• Focus on engineering systems management, rather than technical management</td>
</tr>
<tr>
<td>Texas Tech, Lubbock</td>
<td>MS in Systems &amp; Engineering Management</td>
<td>OC &amp; DL</td>
<td>PT &amp; FT; OE</td>
<td>• An MS program, rather than a professional, practice-oriented degree.</td>
</tr>
<tr>
<td>UH, Houston</td>
<td>MS in Industrial Engineering with MBA</td>
<td>OC</td>
<td>PT; OE</td>
<td>• An MS program, rather than a professional, practice-oriented degree.</td>
</tr>
<tr>
<td>UT - Austin</td>
<td>MS in Engineering Management</td>
<td>OC and DL</td>
<td>FT; OE</td>
<td>Focus on industrial engineering and management, rather than technical management</td>
</tr>
<tr>
<td>-------------</td>
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<td>-----------</td>
<td>--------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>An MS program, rather than a professional, practice-oriented degree. Focus on management, rather than technical management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: Master of Engineering (ME); Master of Science (MS); On-campus (OC); Distance-learning (DL); Full-time (FT), Part-time (PT); Open enrollment (OE), Cohort (CO)

### II. QUALITY & RESOURCES

#### A. Faculty

<table>
<thead>
<tr>
<th>Name of Core Faculty and Faculty Rank</th>
<th>Highest Degree and Awarding Institution</th>
<th>Courses Assigned in Program</th>
<th>% Time Assigned To Program*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Jorge Alvarado Associate Professor</td>
<td>Ph.D. in Mechanical Engineering, University of Illinois Urbana Champaign</td>
<td>METM 612 – Engineering Analytics</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Wei Zhan Associate Professor</td>
<td>D.Sc. in Systems Science, Washington University</td>
<td>METM 641 – Six Sigma &amp; Lean Management for professionals</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Michael Johnson Associate Professor</td>
<td>Ph.D. in Mechanical Engineering, Massachusetts Institute of Technology</td>
<td>METM 611 – Financial Engineering</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. V. Jorge Leon Professor</td>
<td>Ph.D. in Industrial Engineering, Lehigh University</td>
<td>METM 651 – Engineering and the Value Chain</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Joe Morgan Professor</td>
<td>D.E., Industrial &amp; Systems Engineering, Texas A&amp;M University</td>
<td>METM 621 – Technical Project Management</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Ben Zoghi Professor</td>
<td>Ph.D. in Biomedical/Electrical Engineering, Texas A&amp;M University</td>
<td>METM 601 – Engineering Leadership</td>
<td>33%</td>
</tr>
<tr>
<td>Professor of Practice</td>
<td>Patent Lawyer</td>
<td>METM 622 – Contract &amp; Risk Management for Technical Professionals</td>
<td>33%</td>
</tr>
<tr>
<td>All Faculty</td>
<td></td>
<td>MTM 664 – Capstone Project I</td>
<td></td>
</tr>
<tr>
<td>All Faculty</td>
<td></td>
<td>MTM 665 – Capstone Project II</td>
<td></td>
</tr>
</tbody>
</table>
*The percent of time each professor is assigned to the program is only valid if the professor is teaching a course in any one semester (Fall, Spring or Summer).

B. Program Administration
A faculty-member will serve part-time (16.7%) as the Director of the new program.

C. Other Personnel
One clerical/staff person will be hired to support the program. Graduate students will be hired to assist the instructors in the delivery of the course.

D. Supplies, Materials
Supplies and materials required for recruitment, advertisements are included in the budget.

E. Library
No additional library resources are anticipated.

F. Equipment, Facilities
No additional equipment and facilities are anticipated.

G. Accreditation
No program specific accreditation will be sought. Program reviews will be conducted as required in order to be consistent with the standards established by the College of Engineering and Texas A&M University.

III. NEW 5 YEAR COSTS & FUNDING SOURCES

<table>
<thead>
<tr>
<th>NEW FIVE-YEAR COSTS</th>
<th>SOURCES OF FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>$752,995</td>
</tr>
<tr>
<td>Program Administration</td>
<td>$341,356</td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>$271,293</td>
</tr>
<tr>
<td>Supplies &amp; Materials</td>
<td>$185,000</td>
</tr>
<tr>
<td>Library &amp; IT Resources</td>
<td>$0</td>
</tr>
<tr>
<td>Equipment, Facilities</td>
<td>$0</td>
</tr>
<tr>
<td>Other</td>
<td>$447,200</td>
</tr>
<tr>
<td>Estimated 5-Year Costs</td>
<td>$1,997,844</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New Program Request Form

Proposal: Master of Engineering in Technical Management
Request Form for Bachelor's and Master's Degrees

I. Need

NEEDS ASSESSMENT

The needs assessment for the proposed Master of Engineering in Technical Management (METM) program was determined using: (1) Meeting with Industry Focus-Group, (2) Survey potential students and industry sponsors, (3) and feedback from current programs’ Industry Advisory Boards, (4) database research on potential job markets, and (5) Industry Letters of Support.

The objective of the meeting with an industry focus-group was to determine the skills required for future technical managers and identify the skill-gaps in the current workforce; this information served as the basis to design the program-level learning objectives (PLO) and curriculum of the proposed METM program. In addition, a large survey was conducted presenting the proposed curriculum to the potential students and potential sponsors with the objectives of validating the curriculum and PLO's. Furthermore, a job market research was conducted to verify that the job market targeted had growth prospects. Details of these three needs assessment studies are described in the next two subsections. Finally, we have received letters from industry that strongly support the creating of the proposed Master of Engineering in Technical Management.

A. Job Market Need

Needs Assessment with Industry Focus Group. To gather direct requirements from industry, the Engineering Technology and Industrial Distribution (ETID) department consulted with leaders of key industries in Texas, including energy, equipment manufacturers, electronics, and automation, to define the specific characteristics of a program that would satisfy their current and future workforce needs. The meeting was held on the Texas A&M University campus on February 4, 2015. The meeting was hosted by Dr. Ben Zoghi, Professor in ETID, Bharani Nagarathnam, Associate Director of the Masters of Industrial Distribution Program, and facilitated by Dr. Debra Fowler, Associate Director of the Center for Teaching Excellence. Interested faculty also participated in the meeting.

Companies representing strategic industry sectors in Texas (e.g. energy, equipment manufacturers, and automation) were invited to the meeting. Participants included Baker Hughes, MIC Group, Applied Materials, BP International, Honeywell Process, Solutions, and Oil States Industries, Inc. The company representatives that attended were selected based on their commitment to engineering education, and potential to fund employees to participate in the new graduate program.

Specific results of the focus group meeting were used to define the characteristics and curriculum of the proposed program by establishing the skill-set required for graduates of the proposed program, and identifying the particular gaps observed in graduates from similar programs. The information gathered in the meeting was analyzed and synthesized as Program Level Learning Outcomes (PLO) selected faculty led by Dr. Debra Fowler, Associate Director of the Center for Teaching Excellence. Briefly, the PLOs are summarized as:

METM Program Level Learning Objectives: Every student graduating from the program will be able to:

1. Manage new product development
2. Demonstrate project management skills
3. Manage resources and assets

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4. Practice leadership  
5. Communicate clearly and effectively to both technical and non-technical audiences  
6. Demonstrate financial and business acumen  
7. Negotiate and manage contracts  
8. Assure continuous improvement of quality in products and processes  
9. Apply data driven approach to decision making  
10. Apply problem solving and critical thinking methods

Detailed results of the Industry Focus Group Meeting are included in Appendix A.

**Letters of Support from Industry.** We have received strong letters of support from industry. Letters confirm the need for a program like the one proposed here: Mr. Marc Marini, Director of R&D at National Instruments (Austin, Texas), states that the “plurality of courses listed in the program proposal” will allow their “managers and program managers excel at leadership and communication” and that exposure to “financial engineering and value chain management” will provide “program graduates with a competitive advantage relative to [peers] at the same level of experience.” Mr. Ross Smith, Melt Shop Manager at Nucor Steel (Jewett, Texas) states that he sees the “need and desire from [Nucor’s] younger engineers to gain better understanding of the ‘business’ side of [their] operation,” and that the proposed program “addresses a need that [Nucor] has been struggling to find a good solution for.”

The letters of support are Attached.

B. **Student Demand**

Two research methods were used in order to establish the potential student demand. The first and main methodology was a large scale survey aimed at potential students and industry leaders that could potentially sponsor students in the program; the second methodology was a database research to validate the employment growth in the engineering areas targeted by the proposed program.

a. **Survey of Potential Students and Industry Sponsors**

A survey was deployed to validate the specific PLOs defined for the proposed program (see previous section), and to gage the student demand for a program using the specific learning outcomes for the proposed program. The results show a significant potential demand for the proposed program; briefly:

- **Sample:**
  - Survey was sent to:
    - ETID Former Student List – 3119
    - ETD-Listserv ~ Few Thousand
    - Third Party Industry List Rental – 7000
  - Survey Response
    - About 240 Responses

- Respondents’ work experience 80% had more than 6-year experience, 12% had between 3 to 5 years of experience, and 8% had 2 or less years of experience.
- The PLO’s were validated as important skills where the current workforce lacks proficiency in (i.e. current skill gap). Results are shown in the following graph:
New Program Request Form for
Bachelor’s and Master’s Degrees
Page 3

<table>
<thead>
<tr>
<th>Expectation of Manager</th>
<th>Current Level of Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply problem solving and critical thinking methods</td>
<td>2.76</td>
</tr>
<tr>
<td>Communicate clearly and effectively to both technical and non-technical audiences</td>
<td>2.55</td>
</tr>
<tr>
<td>Practice Intrapersonal &amp; Interpersonal leadership</td>
<td>2.64</td>
</tr>
<tr>
<td>Demonstrate project management skills</td>
<td>2.58</td>
</tr>
<tr>
<td>Manage resources and assets</td>
<td>2.63</td>
</tr>
<tr>
<td>Assure continuous improvement of quality in products and processes</td>
<td>2.38</td>
</tr>
<tr>
<td>Apply data driven approach to decision making</td>
<td>2.66</td>
</tr>
<tr>
<td>Demonstrate financial and business acumen</td>
<td>2.48</td>
</tr>
<tr>
<td>Manage new product development</td>
<td>2.46</td>
</tr>
<tr>
<td>Negotiate and manage contracts</td>
<td>2.66</td>
</tr>
</tbody>
</table>

Expectation of Manager versus Current Proficiency Level

- 70% of the respondents said that, if given the opportunity, they would be interested in pursuing the proposed degree (Masters in Engineering in Technical Management). The summary is shown in the graph below:

If you had the opportunity, would you consider pursuing ME in Technical Management?

b. Secondary Data: Job Market Assessment / Analysis.

A secondary database research and analysis is conducted to identify the needs for technical managers. The statistics confirm the ample job opportunities expected for engineering careers in the nation and in Texas.

- USA

The Occupational Outlook Handbook of US Bureau of Labor Statistics shows many engineering job categories growing much faster than the total projected employment growth of 7%. In addition the Architectural and Engineering Managers jobs category is projected to grow at an annual rate of 7%. This shows a strong need for engineers and engineering / technical managers

Engineering Employment Growth Outlook 2012-2022

| Aerospace Engineers | 7% |

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Texas
The Texas Job outlook for engineers shows a stronger demand than the national average. With the projected engineering jobs growth in Texas, the need for engineering / technical managers will grow as well.

Texas Long-Term Employment Projections

<table>
<thead>
<tr>
<th>Aerospace Engineers</th>
<th>14.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Engineers</td>
<td>35.8%</td>
</tr>
<tr>
<td>Chemical Engineers</td>
<td>21.2%</td>
</tr>
<tr>
<td>Civil Engineers</td>
<td>30.5%</td>
</tr>
<tr>
<td>Computer Hardware Engineers</td>
<td>24.0%</td>
</tr>
<tr>
<td>Electrical Engineers</td>
<td>20.8%</td>
</tr>
<tr>
<td>Electronics Engineers, Ex. Computer</td>
<td>22.2%</td>
</tr>
<tr>
<td>Environmental Engineers</td>
<td>24.0%</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>22.2%</td>
</tr>
<tr>
<td>Materials Engineers</td>
<td>17.3%</td>
</tr>
<tr>
<td>Mechanical Engineers</td>
<td>20.0%</td>
</tr>
<tr>
<td>Mining &amp; Geological Engineers</td>
<td>29.9%</td>
</tr>
<tr>
<td>Petroleum Engineers</td>
<td>45.3%</td>
</tr>
<tr>
<td>Engineers, All Other</td>
<td>16.4%</td>
</tr>
</tbody>
</table>


C. Enrollment Projections

<table>
<thead>
<tr>
<th>Year</th>
<th>Change of Major/Transfers</th>
<th>New Students</th>
<th>Attrition</th>
<th>Graduation</th>
<th>Cumulative Headcount</th>
<th>Cumulative* FTES (New only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>12</td>
<td>2</td>
<td>0</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>15</td>
<td>2</td>
<td>10</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>20</td>
<td>2</td>
<td>13</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>25</td>
<td>2</td>
<td>18</td>
<td>42</td>
<td>42</td>
</tr>
</tbody>
</table>

*These numbers will dictate the projected formula income in the funding source portion in Section III.

D. Existing State Programs

Driven by the newly determined PLO’s mentioned previously, the proposed program will produce graduates with a distinct and valuable skill set that complements the gaps found in graduates from comparable programs. The following paragraphs will describe the differences between comparable programs at Texas A&M University, and the other institutions in Texas.
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There are comparable programs at Texas A&M University; particularly relevant are the M.S. in Industrial Engineering (ENSM), and the Master of Engineering in Construction Project Management (MECPM) programs in the College of Engineering.

Comparison between METM and Master of Science in Engineering Systems Management (ENSM):

There are significant differences between the proposed professional online Masters of Engineering in Technical Management (METM) and the existing Master of Science in Engineering Systems Management in the Industrial & Systems Engineering department at Texas A&M University. Important differences include:

1. **Degree**: METM is a masters of engineering degree, while ENSM is a master’s of science. Hence, fundamentally METM is designed as a professional degree, while ENSM although intended for people interested working in industry, it is more academic in the sense that it also offers a path towards academic research (i.e., PhD).

2. **Delivery**: METM is solely offered via distance education and in cohorts, while ENSM is offered both for on-campus and distance education student and does not use a cohort system.

3. **Number of credits required**: The proposed METM requires 30 credit hours or about 10 courses for graduation; while the ENSM requires 36 credit hours or about 12 courses for graduation.

4. **Program focus**: The most salient difference between the two programs is their respective focus. The proposed METM focuses on the management of technology and broad supply chain operations with emphasis on people, projects and profitability. In contrast, ENSM focuses on the management of manufacturing systems with an emphasis on system analysis.

5. **Curriculum**: The differences in programmatic focus are evident in the curriculum. The content of the proposed METM is approximately 20%, 60% and 20%, analytical, technical management and capstone project, respectively. In contrast, ENSM is approximately 60-80% and 20-40%, analytical and management, respectively (depending on the electives taken), with no project. These course distributions emphasize the professional degree orientation of the proposed program.

The comparison between the two programs is summarized in the table below.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>METM</th>
<th>ENSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>Master of Engineering Professional graduate program</td>
<td>Master of Science Graduates for Industry or PhD</td>
</tr>
<tr>
<td>Delivery</td>
<td>Distance education only</td>
<td>On-Campus &amp; Distance Education</td>
</tr>
<tr>
<td>Number of credits</td>
<td>30 credit hours (10 courses)</td>
<td>36 credit hours (12 courses)</td>
</tr>
<tr>
<td>Program focus</td>
<td>People, technology and value-chain operations and management</td>
<td>Engineering (general including services) Systems management</td>
</tr>
<tr>
<td>Curriculum emphasis</td>
<td>• Analytical (2 course)</td>
<td>• Systems engineering (7 analytical courses)</td>
</tr>
<tr>
<td></td>
<td>• Technology and operations Management (6 courses)</td>
<td>• Eng. Management (1 course)</td>
</tr>
<tr>
<td></td>
<td>• Projects (2 courses)</td>
<td>• Electives (4 courses)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certificates: Business, Applied Statistics, Quality</td>
</tr>
</tbody>
</table>

AARWebmasters Updated 11/30/2010
<table>
<thead>
<tr>
<th>University Name</th>
<th>Program Name</th>
<th>Enrollment/ Mode of Offering</th>
<th>Unique Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas Tech University</td>
<td>MS in Systems &amp; Engineering Management</td>
<td>Part-time/ Distance Education</td>
<td>Thesis &amp; Non-Thesis option</td>
</tr>
<tr>
<td>University of Houston</td>
<td>MS in Industrial Engineering with MBA</td>
<td>Part-time/ On-Campus</td>
<td>Course can be completed in a duration shorter than Industrial Engineering &amp; MBA separately</td>
</tr>
<tr>
<td>University of Texas, Austin</td>
<td>MS in Engineering Management</td>
<td>Full-time/ Distance Education &amp; On-Campus</td>
<td>UT Austin is surrounded by an environment that encourages creativity and innovation. Students here have opportunities to attend conferences that make an impact on a global scale, join student organizations and get involved in</td>
</tr>
</tbody>
</table>
II. Quality

A. Degree Requirements

Master Program:

<table>
<thead>
<tr>
<th></th>
<th>Non-thesis SCH</th>
<th>Thesis SCH</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. *Foundation Courses: prerequisite/leveling</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>(explain any special circumstances)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Required Courses (of all students)</td>
<td>30</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>• METM 601 Engineering Leadership</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 611 Financial Engineering</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 612 Engineering Decision Making</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 621 Technical Project Management</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 622 Contract &amp; Risk Management</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 641 Developing New Products and Services</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 644 Leading &amp; Managing Professional Teams</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 651 Technology and the Value Chain</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 664 Capstone Project I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• METM 665 Capstone Project II</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Prescribed Elective Courses</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>d. Elective Courses</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>e1. Thesis/Dissertation</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>e2. Other (specify)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>(e.g. internships/clinical practicum, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL SCH REQUIREMENTS</strong></td>
<td><strong>30</strong></td>
<td><strong>0</strong></td>
<td></td>
</tr>
</tbody>
</table>

B. Curriculum

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Required Courses</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>METM 601</td>
<td>Engineering Leadership*</td>
<td>3</td>
</tr>
<tr>
<td>METM 611</td>
<td>Financial Engineering*</td>
<td>3</td>
</tr>
<tr>
<td>METM 612</td>
<td>Engineering Decision Making*</td>
<td>3</td>
</tr>
<tr>
<td>METM 621</td>
<td>Technical Project Management*</td>
<td>3</td>
</tr>
<tr>
<td>METM 622</td>
<td>Contract &amp; Risk Management*</td>
<td>3</td>
</tr>
<tr>
<td>METM 641</td>
<td>Developing New Products and Services*</td>
<td>3</td>
</tr>
<tr>
<td>METM 644</td>
<td>Leading &amp; Managing Professional Teams*</td>
<td>3</td>
</tr>
<tr>
<td>METM 651</td>
<td>Engineering and the Value Chain*</td>
<td>3</td>
</tr>
<tr>
<td>METM 664</td>
<td>Capstone Project I*</td>
<td>3</td>
</tr>
</tbody>
</table>
C. Faculty

The faculty qualifications are summarized in the following table. All faculty members listed belong to the Graduate Faculty at Texas A&M University.

<table>
<thead>
<tr>
<th>Name of Core Faculty and Faculty Rank</th>
<th>Highest Degree and Awarding Institution</th>
<th>Courses Assigned in Program</th>
<th>% Time Assigned To Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Jorge Alvarado Associate Professor</td>
<td>Ph.D. in Mechanical Engineering, University of Illinois Urbana Champaign</td>
<td>METM 612 – Engineering Decision Making</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Wei Zhan Associate Professor</td>
<td>D.Sc. in Systems Science, Washington University</td>
<td>METM 641 – New Products and Services</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Michael Johnson Associate Professor</td>
<td>Ph.D. in Mechanical Engineering, Massachusetts Institute of Technology</td>
<td>METM 611 – Financial Engineering</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Jorge Leon Professor</td>
<td>Ph.D. in Industrial Engineering, Lehigh University</td>
<td>METM 651 – Engineering and the Value Chain</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Joe Morgan Professor</td>
<td>D.E., Industrial &amp; Systems Engineering, Texas A&amp;M University</td>
<td>METM 621 – Technical Project Management</td>
<td>33%</td>
</tr>
<tr>
<td>Dr. Ben Zoghi Professor</td>
<td>Ph.D. in Biomedical/Electrical Engineering, Texas A&amp;M University</td>
<td>METM 601 – Engineering Leadership</td>
<td>33%</td>
</tr>
<tr>
<td>Professor of Practice</td>
<td>Patent Lawyer</td>
<td>METM 622 – Contract &amp; Risk Management</td>
<td>33%</td>
</tr>
<tr>
<td>Bharani Nagarathnam</td>
<td>Ph.D. Human Resource Development (Expected 2015) MS in Industrial Engineering, Texas A&amp;M University</td>
<td>METM 644 – Leading and Managing Professional Teams</td>
<td>*25%</td>
</tr>
<tr>
<td>All Faculty</td>
<td></td>
<td>MTM 664 – Capstone Project I</td>
<td></td>
</tr>
</tbody>
</table>
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| All Faculty       | MTN 665 – Capstone Project II |

The percent of time each professor is assigned to the program is only valid if the professor is teaching a course in any one semester (Fall, Spring or Summer). During a specific semester where a current faculty is re-assigned to teach a course in the new program, the department will be provided support from the college for the designated percentage of equivalent annual, and use this support to hire qualified instructors to fulfill the current teaching obligations of the re-assigned faculty.

The teaching load of the current faculty will not be impacted. Any teaching load assigned to teach in the new program will be subtracted from the faculty's teaching load.

D. **Students**

General recruitment efforts, including plans to recruit and retain students from underrepresented groups can be categorized as follows:

**Industry Professionals:**
As a professional master's program, the main recruitment efforts will be focused on recruiting industry professional from technical fields such as oil & gas, energy, construction, manufacturing, electrical, electronics, plumbing & HVAC, systems integrators, and related channels. Professionals from engineering, design, sales, operations, technology and management will be ideal candidates. Efforts will be made to make sure the candidates have an appropriate bachelor's degree and sufficient industry knowledge and experience to make them successful in the METM program.

**Industry Partnerships:**
A concentrated effort will be taken to forge industry partnerships where the companies sponsor their top talent for the METM program. Capstone projects will be designed with the sponsors to bring value / innovation to the company and add competitive advantage.

**Recruiting & Marketing Programs:**
Based on the rich and successful experience within ETID with the Master of Industrial Distribution Program, the following recruiting and marketing programs will be developed:
- Print advertising – Industry related trade publications and engineering education journals.
- Electronic advertising – E-mails, banner ads and sponsorships in industry related trade publications and engineering education outlets / associations.
- Informational events & sessions: conduct admissions informational events in key cities to present, interact and recruit students.
- Corporate meetings and visits: Visit key partner companies to meet prospective students and company leadership sponsors.
- Educational institutions: Recruit faculty at multiple universities / colleges as well as academic conferences and events.
- Industry events, conferences and presentations: Participate in industry conferences, events and present the new METM program.

E. **Library**

No additional library resources are anticipated.

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F. **Facilities and Equipment**

No additional facilities and equipment resources are anticipated.

G. **Accreditation**

Program reviews will be conducted as required in order to be consistent with the standards established by the College of Engineering and Texas A&M University. No program specific accreditation will be sought.

H. **Evaluation**

Graduate program reviews will be conducted periodically as required for all other graduate programs in the College of Engineering at Texas A&M University.

III. **Costs and Funding**

**New Five-Year Costs and Funding Sources**

The total 5-year costs and five-year funding totals are summarized in the following table.

<table>
<thead>
<tr>
<th>Five-Year Costs</th>
<th>Five-Year Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personnel</strong></td>
<td>Reallocated Funds</td>
</tr>
<tr>
<td>Faculty</td>
<td>$752,995</td>
</tr>
<tr>
<td>Administration</td>
<td>$89,066</td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>$271,293</td>
</tr>
<tr>
<td>Clerical/Staff</td>
<td>$252,290</td>
</tr>
<tr>
<td>Other Personnel</td>
<td>$0</td>
</tr>
<tr>
<td>Facilities, Equipment &amp; IT Resources</td>
<td>$0</td>
</tr>
<tr>
<td>Supplies and Materials</td>
<td>$185,000</td>
</tr>
<tr>
<td>Library</td>
<td>$0</td>
</tr>
<tr>
<td>Other$</td>
<td>$447,200</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$1,997,844</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reallocated Funds</th>
<th>Anticipated New Formula Funding$</th>
<th>$988,317</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Item Funding</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Designated Tuition</td>
<td>$424,548</td>
<td>$2,162,095</td>
</tr>
</tbody>
</table>

1. Report costs for reassigned faculty, new faculty hires, graduate assistants, and technical support personnel. Prorate individual salaries as a percentage of the time assigned to the program. If existing faculty will contribute to program, include costs necessary to maintain existing programs (e.g., cost of adjunct to cover courses previously taught by faculty who would teach in new program).
2. Specify other costs here (e.g., accreditation, travel).
3. Indicate formula funding for students new to the institution because of the program; formula funding should be included only for years three through five of the program and should reflect enrollment projections for years three through five.
4. Report other sources of funding here. In-hand grants, "likely" future grants, and fees can be included.
Reference and Resources for completion of proposal.

For certification on signature page.

TAC Section 5.50 (b).

(b) To be approved by the Commissioner, a proposal for a new degree program must include certification in writing from the Board of Regents of a proposing institution, in a form prescribed by the Commissioner, that the following criteria have been met:

1. The proposed degree program is within the Table of Programs previously approved by the Board for the requesting institution.

2. The curriculum, faculty, resources, support services, and other components of a proposed degree program are comparable to those of high quality programs in the same or similar disciplines offered by other institutions.

3. Clinical or in-service placements, if applicable, have been identified in sufficient number and breadth to support the proposed program.

4. The program is designed to be consistent with the standards of the Commission on Colleges of the Southern Association of Colleges and Schools, and with the standards of other applicable accrediting agencies; and is in compliance with appropriate licensing authority requirements.

5. The institution has provided credible evidence of long-term student interest and job-market needs for graduates; or, if proposed by a university, the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution where the principal faculty and other resources are already in place to support other approved programs and/or the general core curriculum requirements for all undergraduate students.

6. The program would not be unnecessarily duplicative of existing programs at other institutions.

7. Implementation and operation of the program would not be dependent on future Special Item funding.

8. New costs to the institution over the first five years after implementation of the program would not exceed $2,000,000.
Section II. C of the CB proposal asks campuses to provide information about Core and Support Faculty but does not ask for any other personnel information or any additional personnel who may be involved in the delivery of the new program. AND Section III of the proposal requests identification of personnel costs for first five-year period.

The following 'FTE personnel' table provides program proposal preparers an avenue to identify personnel requirements by category types, along with the types of funding sources [new costs vs. reallocated/reassigned funds from existing sources] for these personnel. The total costs from this table will provide 'Personnel' information costs to be included within Section III -- the 'Five-Year Costs and Funding Sources' table on p. 4 of the program proposal form.

**FTE Personnel Involved in Delivery of New Program**

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassignment</td>
<td>0.17</td>
<td>0.17</td>
<td>0.17</td>
<td>0.17</td>
<td>0.17</td>
<td>0.83</td>
</tr>
<tr>
<td>CORE Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassignment</td>
<td>0.78</td>
<td>1.56</td>
<td>1.56</td>
<td>1.56</td>
<td>1.56</td>
<td>7.00</td>
</tr>
<tr>
<td>SUPPORT Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Student Assts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Reassignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerical/Other Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Reassignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Reassignment</td>
<td>0.95</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
<td>1.73</td>
<td>7.87</td>
</tr>
</tbody>
</table>

**5-Year TOTAL/TOTAL**

16

**7.87**

NOTE: Reassignment = reallocation(s)
NEW COSTS TO THE INSTITUTION OF THE PROGRAM/ADMINISTRATIVE CHANGE  (TAMUS modified)

Complete this chart to indicate the dollar costs to the institution that are anticipated from the change requested.

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost Sub-Category</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>5th Year</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Salaries</td>
<td>(New)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Reassignments)</td>
<td>$78,288</td>
<td>$161,273</td>
<td>$166,111</td>
<td>$171,095</td>
<td>$176,228</td>
<td>$752,995</td>
</tr>
<tr>
<td>Program Administration</td>
<td>(New)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Reassignments)</td>
<td>$16,776</td>
<td>$17,279</td>
<td>$17,798</td>
<td>$18,332</td>
<td>$18,882</td>
<td>$89,066</td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>(New)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Reassignments)</td>
<td>$22,920</td>
<td>$47,215</td>
<td>$48,632</td>
<td>$75,136</td>
<td>$77,390</td>
<td>$271,293</td>
</tr>
<tr>
<td>Clerical/Staff</td>
<td>(New)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Reassignments)</td>
<td>$47,520</td>
<td>$48,946</td>
<td>$50,414</td>
<td>$51,926</td>
<td>$53,484</td>
<td>$252,290</td>
</tr>
<tr>
<td>Supplies &amp; Materials</td>
<td></td>
<td>$37,000</td>
<td>$37,000</td>
<td>$37,000</td>
<td>$37,000</td>
<td>$37,000</td>
<td>$185,000</td>
</tr>
<tr>
<td>Library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment&amp; IT Resources**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (books and course materials; residency week transportation, meals, hotels; other)</td>
<td></td>
<td>$37,840</td>
<td>$72,240</td>
<td>$82,560</td>
<td>$110,080</td>
<td>$144,480</td>
<td>$447,200</td>
</tr>
</tbody>
</table>

AAR/Webmasters Updated 11/30/2010
**ANTICIPATED SOURCES OF FUNDING**  
*Note: Use this chart to indicate the dollar amounts anticipated from various sources. Use the additional explanation section that follows this page to specify as completely as possible each non-formula funding source.*

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>5th Year</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Formula Income*</td>
<td></td>
<td></td>
<td>$242,037</td>
<td>$322,716</td>
<td>$423,564</td>
<td>$988,317</td>
</tr>
<tr>
<td>II. Other State Funding*</td>
<td>$70,154</td>
<td>$132,815</td>
<td></td>
<td>$201,741</td>
<td>$264,402</td>
<td>$820,725</td>
</tr>
<tr>
<td>III. Reallocation of Existing Resources*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. Federal Funding* (In-hand only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Other Funding*</td>
<td>$148,720</td>
<td>$277,720</td>
<td>$317,020</td>
<td>$421,820</td>
<td>$552,820</td>
<td>$1,716,100</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>$216,874</td>
<td>$410,535</td>
<td>$468,633</td>
<td>$623,561</td>
<td>$817,222</td>
<td>$3,525,142</td>
</tr>
</tbody>
</table>

*For more information, please refer to the accompanying *Anticipated Sources of Funding: Explanatory Notes and Examples*.
NON-FORMULA SOURCES OF FUNDING

Note: Use this form to specify as completely as possible each of the non-formula funding sources for the dollar amounts listed on the reverse side of this form.

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>Non-Formula Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Other State Funding*</td>
<td>#1 Texas A&amp;M University required tuition</td>
</tr>
<tr>
<td></td>
<td>#2 Texas A&amp;M University required fees</td>
</tr>
<tr>
<td>III. Reallocation of Existing Resources*</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>IV. Federal Funding*</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>V. Other Funding*</td>
<td>#1 Distance learning differential tuition. Students will be charged $540/SCH in distance learning differential tuition</td>
</tr>
<tr>
<td></td>
<td>#2 Program fee. Students will be charged $1,000/course; this fee will cover books and other course materials, and transportation, hotel and meals associated with a residency week (one residency week per year).</td>
</tr>
</tbody>
</table>
Explanations: ANTICIPATED SOURCES OF FUNDING: EXPLANATORY NOTES AND EXAMPLES

I. Formula Income
   A. The first two years of any new program should not draw upon formula income to pay for the program.
   B. For each of Years 3 through 5, enter the smaller of:
       1. the new formula income you estimate the program would generate, based on projected enrollments and formula funding rates; or
       2. half of the estimated program cost for that year.
   C. Because enrollments are uncertain and programs need institutional support during their start-up phase, it is the Coordinating Board’s policy to require institutions to demonstrate that they can provide:
       1. sufficient funds to support all the costs of the proposed program for the first two years (when no new formula funding will be generated); and
       2. half of the costs of the new program during years three through five.
   D. When estimating new formula income, institutions should take into account the fact that students switching programs do not generate additional formula funding to the institution. For example, if a new master’s program has ten students, but five of them switched into the program from existing master’s programs at the institution, only five of the students will generate new formula income to help defray the costs of the program.

II. Other State Funding
    This category could include special item funding appropriated by the legislature, or other sources of funding from the state that do not include formula-generated funds (e.g., HEAF, PUF, etc.).

III. Reallocation of Existing Resources:
    If faculty in existing, previously budgeted positions is to be partially or wholly reallocated to the new program, you should explain in the text of your proposal how the institution will fulfill the current teaching obligations of those faculty and include any faculty replacement costs as program costs in the budget.

IV. Federal Funding
    Only federal monies from grants or other sources currently in hand may be included. Do not include federal funding sought but not secured. If anticipated federal funding is obtained, at that time it can be substituted for funds designated in other funding categories. Make note within the text of the proposal of any anticipated federal funding.

V. Other Funding
    This category could include Auxiliary Enterprises, special endowment income, or other extramural funding.
APPENDIX A – Results from Industry Focus Group Meeting

1) The ideal candidate for the program was discussed and the following characteristics were agreed upon:
   - Target candidate for this program will be required to have graduated from an undergraduate program 3-5 years prior to applying to the program. Enrollment requirements will assist to ensure that the candidate demonstrates inherit values and has enough base knowledge of the industry.
   - Candidates 4-7 years out of their undergraduate program are likely applicants to enroll. Ideally, the candidates could have any level of career experience and could be from varying company sizes from around the world.
   - Industries could be a group to identify potential employees for the program. Individuals may also self-identify to enroll and cover their own expenses.
   - Industry representatives place the value of an earned master’s degree to be equivalent to a few years of work experience. The master’s program could be used to transition an employee within a company, a new career path, or to repurpose experiences.

2) Program Elements:
   - Instructors will be a combination of Professor of Practice and Tenured Professors whom will meet TAMU graduate faculty requirements and qualifications.
   - Distance education courses plus a 2 week on-site project experience (one week per year of program)
   - The target participation is 20 students per cohort in years with a growth plan associated with the program after 3 years of implementation.
   - The proposed program will typically run over 2 academic years.
   - The time commitment for this program will be approximately 15-20 hours a week.
   - A letter of recommendation will be required from the company leader as part of the application to the program. A value proposition to company and individual is recommended.
   - This program will use a project based business model.

3) Knowledge (core principles) currently needed in the industry were listed:
   There is an assumption that students already have a strong technical background. An additional skill that needs strengthening are:
   - Decipher Profit & Loss and cash flow
   - Demonstrate individual value to the company
   - Demonstrate/justify team’s value
   - Possess global & cultural awareness
   - Willingness to challenge the process
   - Demonstrate appropriate attitude
   - Understand geopolitical conditions
   - Assessing the project from a systems approach
   - Ability to plan human resource (HR)
   - Understand performance management
   - Maintain interpersonal communication
   - Manage expectations
New Program Request Form for
Bachelor's and Master's Degrees
Page 18

- Understand proposal development (i.e. opportunity capture, risk assessment, needs identification, etc.)
- Have delegation expertise
- Supply chain management
- Drive ownership & accountability
- Desire to develop others and self
- Differentiate the need for coaching, mentoring and successful planning
- Manage stakeholder expectations (manage engineers and stakeholders)
- Have PMP certification (potentially covered in a course)
- Understand legal ramifications (fire/hire/Interaction/contracting)
- Identify and protect intellectual property
- Understand ethics
- Have skills in accounting/budgeting
- Implement business practices
- Apply communication skills to effectively manage the project
- Utilize technology assessments
- Have a broad exposure of other programs available
- Recognize engineering analytics
- Know the fundamental/knowledge of operational research statistics
- Understand aptitude of abstractions and modeling
- Quantify decision making
- Make decisions based on data sets
- Utilize data driven decision making
- Function with any size company
- Need a HR Management, Basics of HR
- Problem solving/Six Sigma/Scientific method
- Improve research skills
- Capstone / Scope mgmt. / Problem statement / Design options

4) Gaps currently seen in the industry were initially explored:
- Employees feel that they are on their own in their place of employment.
- Employers need to create solution architects in some businesses.
- Employees need to know how to convey an idea into an action.
- Employees need to understand and promote systems engagement.
- Companies do not want to put their best technical person moved to management position.
- Current breadth of thinking is not sufficient (strategic thinking)
- Cross-functional leadership skills are deficient.
- Communication skills in general are lacking.
- Project management skills are lacking. (QC-Quality management)
- Team building and experiential learning are poor.
- Employees are unable to recognize what they do not know.
- Associate loyalty is lacking.
- Drive, passion, and a sense of purpose need to be present.
- Aptitude and attitude over knowledge and skills need to be improved.
- Employees need to improve skills in financial management.
- Employees need to understand the life cycle including balance sheet as well as the technical and business side of product development.
Employees need to have a passion to continually improve
Employees need to employ an ignorance of the ability to fail.
Employees need to know when to make the small failures.
Employees need to improve leadership management and the analytic aspect risk management.
Cover/Signature Page

Proposal: Master of Engineering in Technical Management
New Bachelor's and Master's Degree  
Cover Page/Signature Page

Directions: An institution shall use this form to propose a new bachelor's or master's degree program. In completing the form, the institution should refer to the document Standards for Bachelor's and Master's Programs, which prescribes specific requirements for new degree programs. Note: This form requires signatures of (1) the Chief Executive Officer, certifying adequacy of funding for the new program; (2) a member of the Board of Regents (or designee), certifying Board approval; and (3) if applicable, a member of the Board of Regents or (designee), certifying that criteria have been met for staff-level approval. NOTE: Preliminary authority is required for all engineering programs. An institution that does not have preliminary authority for a proposed engineering program shall submit a separate request for preliminary authority prior to submitting the degree program request form. That request shall address criteria set in Coordinating Board rules Section 5.24 (a).

Information: Contact the Division of Academic Affairs and Research at 512/427-6200 for more information.

Administrative Information

1. **Institution**: Texas A&M University, College Station

2. **Program Name**: Master of Engineering in Technical Management

3. **Proposed CIP Code**: 14.0101.00

4. **Number of Required Semester Credit Hours (SCHs)**: 30 semester credit hours

5. **Brief Program Description** – Describe the program and the educational objectives:

6. **Administrative Unit**: The Department of Engineering Technology and Industrial Distribution, College of Engineering

7. **Proposed Implementation Date**: 09/01/17

8. **Contact Person** – Provide contact information for the person who can answer specific questions about the program:

   Name: V. Jorge Leon

   Title: Associate Department Head for Graduate Programs

   E-mail: jleon@tamu.edu

   Phone: (979) 845-4993

AAR/Webmasters Updated 11/30/2019
Signature Page

1. Adequacy of Funding – The chief executive officer shall sign the following statement:

I certify that the institution has adequate funds to cover the costs of the new program. Furthermore, the new program will not reduce the effectiveness or quality of existing programs at the institution.

| Chief Executive Officer | Date |

2. Board of Regents or Designee Approval – A member of the Board of Regents or designee shall sign the following statement:

On behalf of the Board of Regents, I approve the program.

| Board of Regents (Designee) | Date of Approval |

3. Board of Regents Certification of Criteria for Commissioner of Assistant Commissioner Approval – For a program to be approved by the Commissioner or the Assistant Commissioner for Academic Affairs and Research, the Board of Regents or designee must certify that the new program meets the eight criteria under TAC Section 5.50 (b): The criteria stipulate that the program shall:

- (1) be within the institution's current Table of Programs;
- (2) have a curriculum, faculty, resources, support services, and other components of a degree program that are comparable to those of high quality programs in the same or similar disciplines at other institutions;
- (3) have sufficient clinical or in-service sites, if applicable, to support the program;
- (4) be consistent with the standards of the Commission of Colleges of the Southern Association of Colleges and Schools and, if applicable, with the standards or discipline-specific accrediting agencies and licensing agencies;
- (5) attract students on a long-term basis and produce graduates who would have opportunities for employment; or the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution;
- (6) not unnecessarily duplicate existing programs at other institutions;
- (7) not be dependent on future Special Item funding
- (8) have new five-year costs that would not exceed $2 million.

On behalf of the Board of Regents, I certify that the new program meets the criteria specified under TAC Section 5.50 (b).

| Board of Regents (Designee) | Date |
Program Checklist

Proposal: Master of Engineering in Technical Management
Texas A&M University
New Certificate, Bachelors, Masters, or Doctoral Program
Undergraduate • Graduate • Professional
• Proposal Checklist •

Program request type:  □ Undergraduate  □ Graduated  □ First Professional (e.g., DVM, JD, MD, etc.)
Request by the Department or Unit of:  Department of Engineering Technology and Industrial Distribution

Program Type, Level, Designation, Title, Description, Hours
Program Type:  □ Certificate Program  □ Degree Program
Program Level:  □ UG Certificate  □ Grad Certificate  □ Bachelor  □ Master  □ Doctoral  □ Professional
Degree Designation (i.e., BS, BA, MA, MS, MEng, MEd, PhD, EdD, etc.)  MEng
Title of proposed program:  Master of Engineering in Technical Management
Proposed CIP Code (if known):  14.0101.00

Brief program description (provide a catalog description for undergraduate and graduate certificates):
The Master of Engineering Technical Management (METM) is a distance-learning graduate program for early career technical professionals. The program is designed to develop early engineering and technical professionals to become the future leaders in technical management positions. The program’s curriculum, carefully crafted in consultation with industrial leaders, provides a unique blend of industry-critical skills in managing people, projects and profitability. This rigorous program is applied, focused, and relevant to manufacturing, energy, process and related industrial channels. METM is a 21 month, lock-step, part-time program, developed with a focus on technical professionals and designed for distance learning delivery. With students enrolled in cohorts, innovative and immersive learning experiences, such as a yearly residency week, and capstone projects, the program provides students and faculty a rich and high-contact virtual learning-community.

Minimum program semester credit hours (SCH)  Certificates - 12 hours*  Bachelors - 120 hours  Masters - 30 hours
Proposed program hours:  ——— ——— 30
*12 hours minimum to appear on transcript

Certificate Programs:  □ Embedded  □ Standalone
Students take coursework that will result in a degree and certificate being earned at the same time.
Non-degree seeking students take coursework to earn a certificate only (no degrees are awarded).

Off-Campus or Distance Delivery
% of Program a student can take off-campus or through Distance Education
□ 25%  □ 50%  □ 80%  □ 100%
Program Start Date  SACSCOC Approval**  When Provost needs to inform SACSCOC
□ 09/2017  Approval Required  6 months before first day of program

**Notification letter arranged through the Vice Provost for Academic Affairs and sent by TAMU President.

Program Delivery Mode
□ On-campus
□ Broadcast / TTVN
□ Specific off-campus location***
□ Distance Education / Internet  □ In-State  □ Out-of-State  Program Start Date 09/2017
□ Out-of-Country

Will this program be offered with another institution?  □ Yes  □ No
If yes, contact the Vice Provost for Academic Affairs for additional reporting requirements.

***Is this an approved SACSCOC location?  □ Yes  □ No
If no, a program prospectus must be sent to SACSCOC. Approved locations as of March 2012: TAMU-Galveston, TAMU-Qatar, University Center-The Woodlands, CityCentre-Houston, Dubai and Saudi Arabia.

Page 1
Revised 04.11.2014
Texas A&M University
New Certificate, Bachelors, Masters, or Doctoral Program
Undergraduate • Graduate • Professional
• Proposal Checklist •

Program Funding

Has program funding been finalized at the department or college level? ☒ Yes □ No
If no, explain or attach budget: _____

Will new costs for the first five years of the program be under $2 million? ☒ Yes □ No
If new costs exceed $2 million, coordinating board approval is required.
Submitted by (Contact Person):

V. Jorge Leon

Name

Associate Department Head for Graduate Programs

Title

jleon@tamu.edu

e-mail

(979) 845-4993

Phôte

Certification Statement

By signing below, the Dean of the College certifies the proposed program complies with coordinating board standards. If the program is delivered through Distance Education, the Dean of the College certifies that they are following the Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically.

Unadditional signature lines if program is between three or more departments or colleges.

[Signature, Department Head]

Date

Reza Langari

Typed or Printed Name

[Signature, Department Head or Interdisciplinary Program Chair (if joint program)]

Date

Typed or Printed Name

[Chair, College Review Committee]

Date

[Chair, College Review Committee]

Date

Dean of College

Date

Dean of College

Date

[Chair, University Curriculum Committee or Graduate Council]

Date

[Chair, University Curriculum Committee or Graduate Council]

Date

Additional Approvals Required: Faculty Senate and President.
Letters of Support

Proposal: Master of Engineering in Technical Management
INDUSTRY LETTERS OF SUPPORT

Attached are letters of support received from industry:

- Mr. Marc Marini, Director of R&D, Embedded Systems, National Instruments, Austin, Texas.

- Mr. Ross C. Simmons, Melt Shop Manager, Nucor Steel Texas, Jewett, Texas.

- Mr. Tom Munns, Technical Writer, Freescale, and Former Product and Test Director, Freescale and Motorola, Austin, Texas.

- Mr. John Lyons, Escalation Manager, Liveops, San Antonio, Texas.
October 14, 2015

Dr. Jorge Leon
Associate Department Head, ETID Graduate Programs
Department of Engineering Technology & Industrial Distribution
Texas A&M University
MS 3367
College Station, TX 77843-3367

Dear Dr. Jorge Leon:

For nearly forty years, NI has worked with engineers and scientists to provide answers to the most challenging questions. Our greatest and most sustainable long-term competitive advantage is our employees. These employees directly influence the company’s culture and its continued success. As NI continues its steady growth and global expansion, the company ensures that its “people advantage” strategy is preserved, lending success to the company’s other key stakeholders: customers, shareholders, and partners. With this strategy, NI meticulously hires the best and brightest employees. It then nurtures a great work environment with career development opportunities and purposeful work.

The purpose of this letter is to express our support for the proposed Master of Engineering in Technical Management program. We support this program for a number of reasons:

- Entering our managerial career track requires a few years of product development experience. Being able to complete on-line course work in parallel with real project experience will ensure an immediate positive impact, through reduced learning and mentoring, upon transition from the technical track.
- As a global organization with multi-discipline project teams, it is imperative that our managers and program managers excel at leadership and communication. A plurality of the courses listed in the program proposal will provide an educational foundation in these areas.
- Being able to comprehend the “bigger picture” leads to better decision making and project trade-offs. Through exposure to financial engineering and value chain management course, program graduates with a competitive advantage relative to non-graduates, at the same experience level.

In closing, we believe the proposed program will produce engineering and technology professionals desperately needed by industry. As such, we recommend and support the creation of the program.

Sincerely,

Marc Marini
Director of R&D, Embedded Systems
National Instruments

11500 N Mopac Expressway • Austin, TX 78759-3504 USA
Sales and Service: (512) 794-0100 • Other Calls: (512) 338-8118 • Fax: (512) 883-8411 • info@ni.com www.ni.com
October 14, 2015

Dr. Ben Zoghi
TEES Texas A&M Engineering
College Station, TX 77843

Re: Master of Engineering in Technical Management (METM) — Letter of Recommendation

Dr. Zoghi,

I am writing this letter in support of the proposed METM program.

As a manager of technical employees, I see the need and desire from our younger engineers to gain a better understanding of the "business" side of our operation. The proposed curriculum that Dr. Langari forwarded looks well developed and targeted to the needs of our future managers.

We have discussed this concept with a couple of our high potential engineers and both were excited as the course content and schedule were very attractive to them.

I truly believe this program has merit, and I can honestly say it addresses a need that our corporation has been struggling find a good solution for.

Please feel free to call me at 903-626-4461 if you have any questions.

Sincerely,

Ross C. Simmons
Melt Shop Manager
Nucor Steel Texas
Dr Zoghi,

Oct 20, 2015

From discussions held in regard to the METM degree within the IAC committee and community, I was already a supporter and in favor of the new academic direction. The current two page degree summary matches the intent of the prior discussion.

To gather more insight into the relevance of the degree, I contacted the recruiting department within Freescale HR. I talked to Denise Douroux from corporate recruiting, and she was also impressed with the purpose and intent of the degree. We were both certain that seeing this type of degree on a resume would greatly influence a candidate’s selection for an entry-level manager, or even mid-level manager position. In my opinion, for the purpose of technical management, this METM degree would prove much more beneficial than a generic MBA.

My second reason for contacting Freescale HR was to investigate whether a degree like this would be “supported” by Freescale to the extent that the company would recommend and therefore even financially support a prospective employee/student. In my 30-year technical career, and in the time that one normally refers to as the “good old days”, it was possible to get support from one’s management, or from the corporation, to attend graduate school. It appears that this practice is very limited now. However, a progressive manager or supervisor would be likely to give some schedule accommodation to a high energy, top notch young employee to attend this mostly remote study METM curriculum.

Regards,
Tom Munns
(Freescale Technical Writer, former Motorola and Freescale Product and Test Director)
10/19/2015

John Lyons

15437 Canteen Creek Dr
San Antonio, TX 78247

To whom it may concern:

I am writing to enthusiastically endorse the proposed Master of engineering in Technical Management (METM) degree. This is a needed and important addition to the curriculum at Texas A&M. This degree program will be able to fill an industry need to supply high quality and fully qualified technical managers. It will also provide a career enhancing mechanism for Engineering Practitioners seeking to improve their capabilities.

If I can be of assistance or if you wish to have further discussion, please feel free to contact me in the future.

Sincerely,

John Lyons
Escalation Manager
Life Senior Member IEEE
Mobile: 682-556-2372
jlvos@liveops.com
liveops
Texas A&M University
New Certificate, Bachelors, Masters, or Doctoral Program
Undergraduate • Graduate • Professional
• Proposal Checklist •

Program request type:  □ Undergraduate  □ Graduate  □ First Professional (ex., DVM, JD, MD, etc.)

Requested by the Department or Unit of:  School of Law

**Program Type, Level, Designation, Title, Description, Hours**

Program Type:  □ Certificate Program  □ Degree Program
Program Level:  □ UG Certificate  □ Grad Certificate  □ Bachelor  □ Master  □ Doctoral  □ Professional
Degree Designation (i.e., BS, BA, MA, MS, MEd, MSW, JD, EdD, etc.)  Master of Jurisprudence (M.Jur.)
Title of proposed program:  Master of Jurisprudence
Proposed CIP Code (if known):  22.0201.00

Brief program description (provide a catalog description for undergraduate and graduate certificates):

This Proposal seeks approval to expand the School of Law's Master of Jurisprudence degree to allow students to complete up to 100% of the program through distance education.

Minimum program semester credit hours (SCH)  Certificates - 12 hours*  Bachelors - 120 hours  Masters - 30 hours

Proposed program hours:  

*12 hours minimum to appear on transcript

Certificate Programs  □ Embedded

Students take coursework that will result in a degree and certificate being earned at the same time.

□ Standalone

Non-degree seeking students take coursework to earn a certificate only (no degrees are awarded).

**Off-Campus or Distance Delivery**

% of Program a student can take off-campus or through Distance Education  Program Start Date  SACSCOC Approval**  When Provost needs to inform SACSCOC

□ 25%  

□ 50%  

□ 80%  

☑ 100%  Fall 2016  Notification Only  ————

Approval Required  6 months before first day of program

Approval Required  6 months before first day of program

Approval Required  6 months before first day of program

**Notification letter arranged through the Vice Provost for Academic Affairs and sent by TAMU President.

**Program Delivery Mode**

□ On-campus  ———

□ Broadcast / TVN  ———

□ Specific off-campus location***  ———

☑ Distance Education / Internet  ☑ In-State  ☑ Out-of-State  Start Date  Fall 2016

□ Out-of-Country

Will this program be offered with another institution?  □ Yes  □ No
If yes, contact the Vice Provost for Academic Affairs for additional reporting requirements.

***Is this an approved SACSCOC location?  □ Yes  □ No
If no, a program prospectus must be sent to SACSCOC. Approved locations as of March 2012: TAMU-Galveston, TAMU-Qatar, University Center-The Woodlands, CityCentre-Houston, Dubai and Saudi Arabia.

**Program Funding**

Has program funding been finalized at the department or college level?  □ Yes  □ No
If no, explain or attach budget:  ———

Will new costs for the first five years of the program be under $2 million?  □ Yes  □ No
If new costs exceed $2 million, coordinating board approval is required.

Page 1  Revised 04.11.2014
Submitted by (Contact Person):

Aric Short
Name
Vice Dean
Title
ashort@law.tamu.edu
Email
(817 343-9445)
Phone

Certification Statement
By signing below, the Dean of the College certifies the proposed program complies with coordinating board standards. If the program is delivered through Distance Education, the Dean of the College certifies that they are following the Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically.

Use additional signature lines if program is between three or more departments or colleges.

Signature, Department Head or Interdisciplinary Program Chair ___________________________ Date __________
Typed or Printed Name __________________________________________________________
Chair, College Review Committee ___________________________ Date __________
Dean of College ______________________________________________________________
Chair, University Curriculum Committee or Graduate Council ___________________________ Date __________

Additional Approvals Required: Faculty Senate and President.
Administrative Information

1. Institution:

   Texas A&M University

2. Program to be Offered (Include CIP code):

   Master of Jurisprudence

   22.0201.00 (Advanced Legal Research/Studies, General)

3. Online Program Description – Describe the program and the educational objectives.

   Texas A&M University proposes offering through online delivery up to 100% of the Master of Jurisprudence (M.Jur.) at Texas A&M University School of Law. The M.Jur. degree will attract professionals from across Texas and beyond who are interested in acquiring legal skills and competencies to enhance their career opportunities. Because legal issues permeate many facets of both the private and public sectors, a degree that provides a solid foundation in law and related skills will be valuable to a wide range of individuals and employers. This degree will be particularly attractive because it will deliver law-related competencies without requiring three years of full-time study to obtain a traditional law degree. Offering up to 100% of the courses in this degree program through online delivery will provide students additional scheduling and curricular flexibility. In addition, by incorporating more online courses into this degree, we expect to expand the number of students who will be able to enroll. We propose no change to the existing M.Jur. educational objectives.
4. **Administrative Unit** – Identify where the program would fit within the organizational structure of the institution (e.g., *The Department of Electrical Engineering within the College of Engineering*).

**School of Law**

5. **Proposed Implementation Date** – Report the first semester and year that students would enter the program.

**Fall 2016**

6. **Contact Person** – Provide contact information for the person who can answer specific questions about the program.

   **Name:** Aric Short  
   **Title:** Vice Dean  
   **E-mail:** ashort@law.tamu.edu  
   **Phone:** (817) 212-4114

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**Format for Existing Bachelors or Masters Degree Program Electronic to Individual (Online Delivery) Request**

**Step One:** For each of the following questions, include the requested information:

- What previously approved programs does your university offer, that are closely related to the new program and how are they related?

  The School of Law currently offers a Juris Doctor (J.D.) degree. In addition, Texas A&M University is in the process of seeking approval for four new degrees that will be offered at the School of Law: a general Master of Jurisprudence; a Master of Jurisprudence in Intellectual Property; a general Master of Laws; and a Master of Laws in Intellectual Property. All of these degrees are related in that they all draw on J.D. courses for the bulk of the degree requirements. For example, general Master of Jurisprudence students will take an introductory course designed specifically for them; however, the remainder of their credit hours will be comprised of J.D. courses. This request seeks approval to offer up to 100% of the general Master of Jurisprudence degree through courses that are delivered online.

- (List the programs within your college/department that are already approved for online delivery.)
None.

- Will significant additional equipment or facilities be needed? If yes, explain.
  
  No. We anticipate requiring no additional facilities and little additional equipment to undertake this change.

- Will significant additional financial resources be needed? If yes, explain.
  
  No. The School of Law will invest in the online infrastructure necessary to support this change, but we do not currently anticipate that the expenses will be significant.

- Will a significant number of new courses be required? If yes, explain.
  
  No. This request for online delivery does not require the creation of a significant number of new courses. Depending on the degree concentrations created, the School of Law may develop a reasonable number of online-only courses for the M.Jur. degree program.

- Will a significant number of new faculty members be required? If yes, explain.
  
  No. The School of Law will use existing fulltime faculty members (including the 11 new fulltime professors who begin work during the 2015-2016 academic year) to convert existing face-to-face courses to an online format and to create new courses in an online format. Given the significant increase in the size of our faculty and the fact that we have reduced the size of our J.D. class from 702 in the fall of 2014 to approximately 580 in the fall of 2015, we have the existing teaching resources in place to implement this change.

- Will significant additional library/learning resources be needed? If yes, explain.
  
  No. The School of Law anticipates that no significant additional library resources will be needed to implement this change. We do expect to create or license certain learning resources that are appropriate for the courses being developed for online delivery, but we do not anticipate that they will be unreasonably extensive or expensive. For example, we will explore how to adapt our existing and successful academic support program for online learners; however, that should be achievable with a relatively modest investment of time and other resources.

- What processes do you have in place that secures that a student registered for a distance education course is the same student who completes and receives credit for it? Explain.
  
  The School of Law will utilize best practices to provide a secure online learning and assessment experience for our students.

*Note: SACS requires that programs that are a significant departure from those offered when the institution was last evaluated be reported according to SACS. If the answers to these questions reflect a “significant departure” then SACS reporting is required.
**Step Two:** For each of the following questions, include the requested information:

1. Program Administrative Oversight and Structure:
   - Identify the person and office directly responsible for the overall management of the offering.

   **Aric Short**  
   **Vice Dean & Professor**  
   **Texas A&M University School of Law**  
   (817) 212-4114  
   ashort@law.tamu.edu

2. Faculty Resources:
   - If the online program will result in additional students, how will faculty resources be provided, that is, hiring additional faculty, reallocating faculty resources from other programs, etc.?

If the online program results in additional students, the School of Law will absorb those students into existing classes or create new ones using fulltime or adjunct faculty members. There are several reasons to believe that any reasonable increase in enrollment can be accommodated with existing teaching resources.

First, J.D. enrollment at the School of Law has decreased from 702 in the fall of 2014 to approximately 580 in the fall of 2015, and we anticipate that our enrollment numbers will not increase significantly in the near future. As a result, our existing faculty members have some excess capacity in their teaching loads.

Second, we have hired eleven new fulltime faculty members who begin work during the 2015-2016 academic year and soon thereafter. All of those faculty members will be adding new courses to our curriculum, further increasing the number of seats available in traditional and online courses offered at the School of Law.

We also have a large and talented pool of adjunct professors who regularly teach required and elective courses for the School of Law. This provides us with flexibility to augment our curriculum at the last minute if a high-demand course reaches capacity. If needed, we will draw on those adjunct resources to help teach additional sections of existing courses or new courses if student demand increases beyond the capacity of our fulltime faculty.

3. Evaluation:
   - How will your institution monitor the quality of the program and student learning outcomes?

The School of Law will monitor the quality of the program and student learning outcomes using methods implemented in our face-to-face courses and methods designed specifically for distance education. We will evaluate all faculty who teach distance education courses using our existing end-of-course teacher evaluation forms. Additional questions that focus on the quality of the students’ online experience will be added to those forms. Following the School of Law's current policy, all tenure-track and adjunct faculty will be subject to a peer teaching review each semester.
Each course taught in an online format will have student learning outcomes associated with it, and overall educational goals of online courses will be the same as those in face-to-face courses. The School of Law’s administration (Associate Dean for Academic Affairs and Vice Dean) will review all end-of-course evaluation and monitor both the quality of each online course and the related student learning outcomes.

- Describe procedures for evaluation of the program and its effectiveness in the first five years of the program, including admission and retention rates, program outcomes assessments, placement of graduates, changes of job market need/demand, ex-student/graduate surveys, or other procedures.

Online courses and degree programs will be evaluated using a number of different methods to determine their effectiveness:

- The School of Law will monitor the number of applicants, as well as the retention rate for any online program, to evaluate both student demand and the rigor of the program.

- Student learning objectives for each course, as well as program outcomes assessments, will be made clear to all enrolling students. Students will be provided formative and summative assessment opportunities to measure their mastery of the material and the skills being developed. The School of Law’s Associate Dean for Academic Affairs, its Vice Dean, and its Curriculum Committee, will monitor the overall operation of the online degree programs and will evaluate their effectiveness.

- Surveys of graduates and ex-students will provide additional perspectives on the strengths and weaknesses of the overall program.

- The School of Law will monitor the placement rate of graduates from online programs to help evaluate the overall demand for the programs.
  - How would evaluations be carried out?

Evaluations of online programs will be carried with oversight by the School of Law’s Associate Dean for Academic Affairs, Vice Dean, and Curriculum Committee.

- The actual number of applications and students withdrawn from the program will be compared against predicted estimates.

- Each student enrolled in an online course will be provided an evaluation form to complete. The form will ask a variety of questions about the quality of the instruction and course content. The standard School of Law end-of-course evaluation form will be used, and it will be supplemented with questions specific to online education. The Associate Dean for Academic Affairs and the Vice Dean will review the completed evaluation forms and factor them in when determining, based on all relevant information, whether any adjustment to personnel or course content is warranted.

- Peer teaching evaluation forms will be completed for each non-tenured faculty member teaching an online course. Those evaluation forms will be used in the overall review of each online instructor.

- As the School of Law develops additional policies and procedures in the area of delivery of online courses, they will be implemented in this degree program.
Step Three: Complete, sign and submit with proposal the "Texas Higher Education Coordinating Board Certification Form for Electronically Delivered Programs."
Texas Higher Education Coordinating Board

Certification Form for Electronically Delivered and Off-Campus Education Programs
April 2014

Directions: For all new programs that are to be delivered electronic-to-individuals (i.e., online), electronic-to-groups, or off-campus face-to-face, a signed pdf of this form must accompany email notification of the new program to Dr. Andrew B. Lofters (andrew.lofters@thech.state.tx.us). (Institutions offering distance education programs for the first time – i.e. have never offered a distance education program, such as newly created institutions -- must complete and submit an Institutional Plan for Distance Education).

Please fill out the Administrative Information below and then sign and date on page 4.

Administrative Information

1. Institution:

   Texas A&M University

2. Program Name – Show how the program would appear on the Coordinating Board’s program inventory [e.g., Master of Arts (MA) in English Literature]:

   Master of Jurisprudence

3. Program CIP Code:

   22.0201.00 (Advanced Legal Research/Studies, General)

4. Program Delivery – Describe how the program will be delivered: online, off-campus face-to-face or off-campus electronic-to-groups? If off-campus, include information as to where the program will be delivered and be sure to follow the requirements for area notification as outlined in the Guidelines for Approval of Distance Education.

   Courses in the Master of Jurisprudence degree program will be delivered both in-person and online. Students will be able to complete all course requirements online if they choose.

5. Proposed Implementation Date – Report the first semester and year that students would enter the program at the proposed additional site(s).

   Fall 2016

6. Contact Person – Provide contact information for the person who can answer specific questions about the program.
Name: Aric Short

Title: Vice Dean

E-mail: ashort@law.tamu.edu

Phone: (817) 212-4114

Based on Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically.

CURRICULUM AND INSTRUCTION

• Each program or course results in learning outcomes appropriate to the rigor and breadth of the degree or certificate awarded.

• A degree or certificate program or course offered electronically is coherent and complete.

• The program or course provides for appropriate interaction between faculty and students and among students.

• Qualified faculty provide appropriate oversight of the program or course that is offered electronically.

• Academic standards for all programs or courses offered electronically will be the same as those for programs or courses delivered by other means at the institution where the program or course originates.

• Student learning in programs or courses delivered electronically should be comparable to student learning in programs offered at the campus where the programs or courses originate.

INSTITUTIONAL CONTEXT AND COMMITMENT

Role and Mission

• The program or course is consistent with the institution's role and mission.

• Review and approval processes ensure the appropriateness of the technology being used to meet the objectives of the program or course.

Students and Student Services
• Program or course announcements and electronic catalog entries provide appropriate information.

• Students shall be provided with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technological competence and skills, technical equipment requirements, availability of academic support services and financial aid resources, and costs and payment policies.

• Enrolled students have reasonable and adequate access to the range of student services and student rights appropriate to support their learning.

• The institution has admission/acceptance criteria in place to assess the extent to which a student has the background, knowledge and technical skills required to undertake the program or course.

• Advertising, recruiting, and admissions materials clearly and accurately represent the program or course and the services available.

Faculty Support

• The program or course provides faculty support services specifically related to teaching via an electronic system.

• The institution assures appropriate training for faculty who teach via the use of technology.

• The institution provides adequate equipment, software, and communications access to faculty to support interaction with students, institutions, and other faculty.

Resources for Learning

• The institution ensures that appropriate learning resources are available to students.

• The institution evaluates the adequacy of, and the cost to students for, access to learning resources and documents the use of electronic resources.

Commitment to Support

• Policies for faculty evaluation include appropriate recognition of teaching and scholarly activities related to programs or courses offered electronically.

• The institution demonstrates a commitment to ongoing support, both financial and technical, and to continuation of the program or course for a period of time reasonable and sufficient for students to complete the course or program.

EVALUATION AND ASSESSMENT
• The institution evaluates the program's or course's educational effectiveness, including assessments of student learning outcomes, student retention, and student and faculty satisfaction.

• At the completion of the program or course, the institution provides for assessment and documentation of student achievement in each course.

On behalf of ______________________ (Institution), I assert that the preceding Coordinating Board criteria have been met for all courses associated with this program that will be delivered electronically and off-campus face-to-face.

__________________________________________  ______________________
Chief Academic Officer or President                      Date

Name: ________________________________

Title: ________________________________

THECB 4/2014
DISTANCE EDUCATION
ELECTRONIC TO INDIVIDUALS (ONLINE DELIVERY) APPROVAL FORM

Submitted by:

☒ Texas A&M University
☐ Texas A&M University–Central Texas
☐ Texas A&M University–Commerce
☐ Texas A&M University–Corpus Christi
☐ Texas A&M University–Kingsville
☐ Texas A&M University–San Antonio
☐ Texas A&M University–Texarkana
☐ Texas A&M International University
☐ Prairie View A&M University
☐ Tarleton State University
☐ West Texas A&M University
☐ Texas A&M Health Science Center

Distance Education: Electronic to Individuals (online Delivery) Authorization Request

Please list the proposed degree and CIP code:

Degree: Master of Jurisprudence

CIP Code: 22.0201.00 (Advanced Legal Research/Studies, General)

When is the effective date of the proposed program?

Effective Date: Fall 2016

**Please note:** This proposed program cannot be advertised as an online delivered degree program until the A&M System Office of Academic Affairs has approved it and the Texas Higher Education Coordinating Board has been notified.

Summary of Proposal (Include Background Information and Rationale for the change.)

Texas A&M University proposes offering through online delivery up to 100% of the course work of its general Master of Jurisprudence (M.Jur.) at Texas A&M University School of Law. The M.Jur. degree will attract professionals from across Texas and beyond who are interested in acquiring legal skills and competencies to enhance their career opportunities. Because legal issues permeate many facets of both the private and public sectors, a degree that provides a solid foundation in law and related skills will be valuable to a wide range of individuals and employers. This degree will be particularly attractive because it will deliver law-related competencies without requiring three years of full-time study to obtain a traditional law degree. Offering up to 100% of the courses in this degree program through online delivery will provide students additional scheduling and curricular flexibility. In addition, by incorporating more online courses into this degree, we expect to expand the number of students who will be able to enroll. We propose no change to the existing M.Jur. educational objectives.
Financial Implications:

The School of Law is currently authorized by the American Bar Association to accept up to 24 fulltime students in its general M.Jur. program. The program will have an online component allowing students to complete some of the courses through electronic delivery. The present request seeks authorization to offer up to 100% of the M.Jur. degree requirements online. Assuming a maximum enrollment of 24 students, offering this degree program fully online would not have a significant financial impact on the School of Law. The School of Law currently offers some of its courses online, and it is in the process of converting more of its courses to online versions. The costs of doing so have been included in the existing IT budget for the School of Law. We anticipate no additional costs for the development of online courses for the 24 students currently approved. Revenue generated from the M.Jur. program with an enrollment of 24 students is approximately $400,000.

University: Request for Authorization

I recommend adoption of the following program:

"Having complied with all of the requirements of the Texas Higher Education Coordinating Board, Texas A&M University is hereby authorized to offer the Masters of Engineering in Mechanical Engineering program by distance education, electronic to individuals (online delivery) effective Spring 2015.

The Texas A&M University System Office of Academic Affairs finds that the program offering aforementioned is within the role and scope and capacity of the institution and will benefit students.

Texas A&M University certifies that the proposed distance delivery of the aforementioned program meets the criteria under Texas Administrative Code Chapter 4 Subchapter P regarding quality of the curriculum and courses; delivery of instruction; evaluation, training, supervision, and support of faculty; financial resources; and admission of the support services for students. The program is within the role and mission of the institution and in the Table of Program. The institution will comply with the standards and criteria of the Commission on Colleges of the Southern Association of Colleges and Schools and will adhere to criteria outlined in the Principles of Good Practice for Degree and Certificate Programs and Courses Offered Through Distance Education."

Approval – University:

Karan L. Watson
Provost and Executive Vice President for Academic Affairs

Authorization: System

Approval – Texas A&M University System:
James R. Hallmark, Ph.D.
Vice Chancellor for Academic Affairs
Texas A&M University
New Certificate, Bachelors, Masters, or Doctoral Program
Undergraduate • Graduate • Professional
• Proposal Checklist •

Program request type:
☐ Undergraduate  ☒ Graduate  ☐ First Professional (e.g., DVM, JD, MD, etc.)

Requested by the Department or Unit of: School of Law

Program Type, Level, Designation, Title, Description, Hours
Program Type:  ☐ Certificate Program  ☒ Degree Program
Program Level:  ☐ UG Certificate  ☐ Grad Certificate  ☐ Bachelor  ☒ Master  ☐ Doctoral  ☐ Professional
Degree Designation (i.e., BS, BA, MA, MS, MAg, MSed, PhD, EdD, etc.) Master of Laws (LL.M.)
Title of proposed program: Master of Laws
Proposed CIP Code (if known): 22.0201.00

Brief program description (provide a catalog description for undergraduate and graduate certificates):
This Proposal seeks approval to expand the School of Law's Master of Jurisprudence degree to allow students to complete up to 100% of the program through distance education.

Minimum program semester credit hours (SCH)  Certificates - 12 hours*  Bachelors - 120 hours  Masters - 30 hours

Proposed program hours: 30
*12 hours minimum to appear on transcript

Certificate Programs  ☐ Embedded
Students take coursework that will result in a degree and certificate being earned at the same time.
☐ Standalone
Non-degree seeking students take coursework to earn a certificate only (no degrees are awarded).

Off-Campus or Distance Delivery
% of Program a student can take off-campus or through Distance Education  Program Start Date  SACSCOC Approval**  When Provost needs to inform SACSCOC
☐ 25%  ☐ 50%  ☐ 80%  ☒ 100%

Fall 2016  Notification Only  Approval Required  6 months before first day of program

**Notification letter arranged through the Vice Provost for Academic Affairs and sent by TAMU President.

Program Delivery Mode
Location
☐ On-campus  ☐ Broadcast / TTVN  ☒ Specific off-campus location***

Distance Education / Internet  ☒ In-State  ☒ Out-of-State  Start Date  Fall 2016

Will this program be offered with another institution?  ☐ Yes  ☒ No
If yes, contact the Vice Provost for Academic Affairs for additional reporting requirements.

***Is this an approved SACSCOC location?  ☐ Yes  ☐ No
If no, a program prospectus must be sent to SACSCOC.
Approved locations as of March 2012: TAMU-Galveston, TAMU-Qatar, University Center-The Woodlands, CityCentre-Houston, Dubai and Saudi Arabia.

Program Funding
Has program funding been finalized at the department or college level?
☐ Yes  ☐ No
If no, explain or attach budget:

Will new costs for the first five years of the program be under $2 million?
☐ Yes  ☐ No
If new costs exceed $2 million, coordinating board approval is required.

Page 1  Revised 04.11.2014
Submitted by (Contact Person):
Aric Short
Name
Vice Dean
Title
ashort@law.tamu.edu
Email
(817) 343-9445
Phone

Certification Statement
By signing below, the Dean of the College certifies the proposed program complies with coordinating board standards. If the program is delivered through Distance Education, the Dean of the College certifies that they are following the Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically.

Use additional signature lines if program is between three or more departments or colleges.

<table>
<thead>
<tr>
<th>Signature, Department Head or Interdisciplinary Program Chair</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typed or Printed Name</td>
<td></td>
</tr>
<tr>
<td>Chair, College Review Committee</td>
<td>Date</td>
</tr>
<tr>
<td>Dean of College</td>
<td>Date</td>
</tr>
<tr>
<td>Chair, University Curriculum Committee or Graduate Council</td>
<td>Date</td>
</tr>
</tbody>
</table>

Signature, Department Head or Interdisciplinary Program Chair (if joint program)
Typed or Printed Name
Chair, College Review Committee
Date
Dean of College
Date
Chair, University Curriculum Committee or Graduate Council
Date

Additional Approvals Required: Faculty Senate and President.
Administrative Information

1. **Institution:**

   Texas A&M University

2. **Program to be Offered (Include CIP code):**

   Master of Laws

   22.0201.00 (Advanced Legal Research/Studies, General)

3. **Online Program Description** – Describe the program and the educational objectives.

   The proposed Master of Laws (LL.M.) at the School of Law will provide a year of concentrated post-graduate legal study for practicing lawyers or graduates of foreign or domestic law schools. The LL.M. is the most common second law degree offered by U.S. law schools, and it appeals to a wide range of applicants, including: (1) foreign lawyers and law graduates seeking training in U.S. legal doctrine and skills; (2) U.S. lawyers and law graduates wishing to pursue advanced study in chosen areas of focus.

   The proposed LL.M. program will consist of at least twenty-four credit hours, and students may be enrolled on either a fulltime or part-time basis. LL.M. students will be required to complete at least one writing course in a chosen area of interest. In addition, students who do not have a Juris Doctor from an A.B.A.-approved law school must take a concentrated introductory course on the US legal and business environment, which will be designed specifically for this program and taught exclusively to LL.M. students. The School of Law’s LL.M. program will operate initially as a general degree, and all LL.M. students will select their courses of study in close consultation with School of Law advisors and faculty. Each student enrolling in the general LL.M. program will be required to successfully complete at least three upper-level courses in a chosen area of
focus. Specific LL.M. concentrations may be developed by the School of Law in the future.

Offering up to 100% of the courses in this degree program through online delivery will provide students additional scheduling and curricular flexibility. In addition, by incorporating more online courses into this degree, we expect to expand the number of students who will be able to enroll. We propose no change to the existing LL.M. educational objectives.

4. Administrative Unit – Identify where the program would fit within the organizational structure of the institution (e.g., The Department of Electrical Engineering within the College of Engineering).

School of Law

5. Proposed Implementation Date – Report the first semester and year that students would enter the program.

Fall 2016

6. Contact Person – Provide contact information for the person who can answer specific questions about the program.

Name: Aric Short
Title: Vice Dean
E-mail: ashort@law.tamu.edu
Phone: (817) 212-4114

Format for Existing Bachelors or Masters Degree Program Electronic to Individual (Online Delivery) Request

Step One: For each of the following questions, include the requested information:

- What previously approved programs does your university offer, that are closely related to the new program and how are they related?

The School of Law currently offers a Juris Doctor (J.D.) degree. In addition, Texas A&M University is in the process of seeking approval for four new degrees that will be offered at the School of Law: a general Master of Jurisprudence; a Master of Jurisprudence in Intellectual Property; a general Master of Laws; and a Master of Laws in Intellectual Property. All of these degrees are related in that they all draw on J.D. courses for the bulk of the degree requirements. For example, general
Master of Laws students will take an introductory course designed specifically for them; however, the remainder of their credit hours will be comprised of J.D. courses. This request seeks approval to offer up to 100% of the general Master of Laws degree through courses that are delivered online.

- (List the programs within your college/department that are already approved for online delivery.)
  
  None.

- Will significant additional equipment or facilities be needed? If yes, explain.
  
  No. We anticipate requiring no additional facilities and little additional equipment to undertake this change.

- Will significant additional financial resources be needed? If yes, explain.
  
  No. The School of Law will invest in the online infrastructure necessary to support this change, but we do not currently anticipate that the expenses will be significant.

- Will a significant number of new courses be required? If yes, explain.
  
  No. This request for online delivery does not require the creation of a significant number of new courses. Depending on the degree concentrations created, the School of Law may develop a reasonable number of online-only courses for the L.L.M. degree program.

- Will a significant number of new faculty members be required? If yes, explain.
  
  No. The School of Law will use existing fulltime faculty members (including the 11 new fulltime professors who begin work during the 2015-2016 academic year) to convert existing face-to-face courses to an online format and to create new courses in an online format. Given the significant increase in the size of our faculty and the fact that we have reduced the size of our J.D. class from 702 in the fall of 2014 to approximately 580 in the fall of 2015, we have the existing teaching resources in place to implement this change.

- Will significant additional library/learning resources be needed? If yes, explain.
  
  No. The School of Law anticipates that no significant additional library resources will be needed to implement this change. We do expect to create or license certain learning resources that are appropriate for the courses being developed for online delivery, but we do not anticipate that they will be unreasonably extensive or expensive. For example, we will explore how to adapt our existing and successful academic support program for online learners; however, that should be achievable with a relatively modest investment of time and other resources.

- What processes do you have in place that secures that a student registered for a distance education course is the same student who completes and receives credit for it? Explain.
The School of Law will utilize best practices to provide a secure online learning and assessment experience for our students.

*Note: SACS requires that programs that are a significant departure from those offered when the institution was last evaluated be reported according to SACS. If the answers to these questions reflect a “significant departure” then SACS reporting is required.

**Step Two:** For each of the following questions, include the requested information:

1. Program Administrative Oversight and Structure:
   - Indentify the person and office directly responsible for the overall management of the offering.

   Aric Short  
   Vice Dean & Professor  
   Texas A&M University School of Law  
   (817) 212-4114  
   ashort@law.tamu.edu

2. Faculty Resources:
   - If the online program will result in additional students, how will faculty resources be provided, that is, hiring additional faculty, reallocating faculty resources from other programs, etc.?

   If the online program results in additional students, the School of Law will absorb those students into existing classes or create new ones using fulltime or adjunct faculty members. There are several reasons to believe that any reasonable increase in enrollment can be accommodated with existing teaching resources.

   First, J.D. enrollment at the School of Law has decreased from 702 in the fall of 2014 to approximately 580 in the fall of 2015, and we anticipate that our enrollment numbers will not increase significantly in the near future. As a result, our existing faculty members have some excess capacity in their teaching loads.

   Second, we have hired eleven new fulltime faculty members who begin work during the 2015-2016 academic year and soon thereafter. All of those faculty members will be adding new courses to our curriculum, further increasing the number of seats available in traditional and online courses offered at the School of Law.

   We also have a large and talented pool of adjunct professors who regularly teach required and elective courses for the School of Law. This provides us with flexibility to augment our curriculum at the last minute if a high-demand course reaches capacity. If needed, we will draw on those adjunct resources to help teach additional sections of existing courses or new courses if student demand increases beyond the capacity of our fulltime faculty.

3. Evaluation:
   - How will your institution monitor the quality of the program and student learning outcomes?
The School of Law will monitor the quality of the program and student learning outcomes using methods implemented in our face-to-face courses and methods designed specifically for distance education. We will evaluate all faculty who teach distance education courses using our existing end-of-course teacher evaluation forms. Additional questions that focus on the quality of the students’ online experience will be added to those forms. Following the School of Law’s current policy, all tenure-track and adjunct faculty will be subject to a peer teaching review each semester.

Each course taught in an online format will have student learning outcomes associated with it, and overall educational goals of online courses will be the same as those in face-to-face courses. The School of Law’s administration (Associate Dean for Academic Affairs and Vice Dean) will review all end-of-course evaluation and monitor both the quality of each online course and the related student learning outcomes.

- Describe procedures for evaluation of the program and its effectiveness in the first five years of the program, including admission and retention rates, program outcomes assessments, placement of graduates, changes of job market need/demand, ex-student/graduate surveys, or other procedures.

Online courses and degree programs will be evaluated using a number of different methods to determine their effectiveness:

- The School of Law will monitor the number of applicants, as well as the retention rate for any online program, to evaluate both student demand and the rigor of the program.

- Student learning objectives for each course, as well as program outcomes assessments, will be made clear to all enrolling students. Students will be provided formative and summative assessment opportunities to measure their mastery of the material and the skills being developed. The School of Law’s Associate Dean for Academic Affairs, its Vice Dean, and its Curriculum Committee, will monitor the overall operation of the online degree programs and will evaluate their effectiveness.

- Surveys of graduates and ex-students will provide additional perspectives on the strengths and weaknesses of the overall program.

- The School of Law will monitor the placement rate of graduates from online programs to help evaluate the overall demand for the programs.
  - How would evaluations be carried out?

Evaluations of online programs will be carried with oversight by the School of Law’s Associate Dean for Academic Affairs, Vice Dean, and Curriculum Committee.

- The actual number of applications and students withdrawn from the program will be compared against predicted estimates.

- Each student enrolled in an online course will be provided an evaluation form to complete. The form will ask a variety of questions about the quality of the instruction and course content. The standard School of Law end-of-course evaluation form will be used, and it will be supplemented with questions specific to online education. The Associate Dean for Academic Affairs and the Vice Dean will review the completed evaluation forms and factor them in when determining, based on all relevant information, whether any adjustment to personnel or course content is warranted.
- Peer teaching evaluation forms will be completed for each non-tenured faculty member teaching an online course. Those evaluation forms will be used in the overall review of each online instructor.

- As the School of Law develops additional policies and procedures in the area of delivery of online courses, they will be implemented in this degree program.

**Step Three:** Complete, sign and submit with proposal the "Texas Higher Education Coordinating Board Certification Form for Electronically Delivered Programs."
Texas Higher Education Coordinating Board

Certification Form for Electronically Delivered and Off-Campus Education Programs
April 2014

Directions: For all new programs that are to be delivered electronic-to-individuals (i.e., online), electronic-to-groups, or off-campus face-to-face, a signed pdf of this form must accompany email notification of the new program to Dr. Andrew B. Lofers (andrew.lofters@theerb.state.tx.us). (Institutions offering distance education programs for the first time – i.e. have never offered a distance education program, such as newly created institutions -- must complete and submit an Institutional Plan for Distance Education).

Please fill out the Administrative Information below and then sign and date on page 4.

Administrative Information

1. Institution:
   Texas A&M University

2. Program Name – Show how the program would appear on the Coordinating Board’s program inventory [e.g., Master of Arts (MA) in English Literature]:
   Master of Laws

3. Program CIP Code:
   22.0201.00 (Advanced Legal Research/Studies, General)

4. Program Delivery – Describe how the program will be delivered: online, off-campus face-to-face or off-campus electronic-to-groups? If off-campus, include information as to where the program will be delivered and be sure to follow the requirements for area notification as outlined in the Guidelines for Approval of Distance Education.

   Courses in the Master of Laws degree program will be delivered both in-person and online. Students will be able to complete all course requirements online if they choose.

5. Proposed Implementation Date – Report the first semester and year that students would enter the program at the proposed additional site(s).
   Fall 2016

6. Contact Person – Provide contact information for the person who can answer specific questions about the program.
Name: Aric Short
Title: Vice Dean
E-mail: ashort@law.tamu.edu
Phone: (817) 212-414

Based on Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically.

CURRICULUM AND INSTRUCTION

• Each program or course results in learning outcomes appropriate to the rigor and breadth of the degree or certificate awarded.

• A degree or certificate program or course offered electronically is coherent and complete.

• The program or course provides for appropriate interaction between faculty and students and among students.

• Qualified faculty provide appropriate oversight of the program or course that is offered electronically.

• Academic standards for all programs or courses offered electronically will be the same as those for programs or courses delivered by other means at the institution where the program or course originates.

• Student learning in programs or courses delivered electronically should be comparable to student learning in programs offered at the campus where the programs or courses originate.

INSTITUTIONAL CONTEXT AND COMMITMENT

Role and Mission

• The program or course is consistent with the institution’s role and mission.

• Review and approval processes ensure the appropriateness of the technology being used to meet the objectives of the program or course.

Students and Student Services
• Program or course announcements and electronic catalog entries provide appropriate information.

• Students shall be provided with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technological competence and skills, technical equipment requirements, availability of academic support services and financial aid resources, and costs and payment policies.

• Enrolled students have reasonable and adequate access to the range of student services and student rights appropriate to support their learning.

• The institution has admission/acceptance criteria in place to assess the extent to which a student has the background, knowledge and technical skills required to undertake the program or course.

• Advertising, recruiting, and admissions materials clearly and accurately represent the program or course and the services available.

Faculty Support

• The program or course provides faculty support services specifically related to teaching via an electronic system.

• The institution assures appropriate training for faculty who teach via the use of technology.

• The institution provides adequate equipment, software, and communications access to faculty to support interaction with students, institutions, and other faculty.

Resources for Learning

• The institution ensures that appropriate learning resources are available to students.

• The institution evaluates the adequacy of, and the cost to students for, access to learning resources and documents the use of electronic resources.

Commitment to Support

• Policies for faculty evaluation include appropriate recognition of teaching and scholarly activities related to programs or courses offered electronically.

• The institution demonstrates a commitment to ongoing support, both financial and technical, and to continuation of the program or course for a period of time reasonable and sufficient for students to complete the course or program.

EVALUATION AND ASSESSMENT
• The institution evaluates the program's or course's educational effectiveness, including assessments of student learning outcomes, student retention, and student and faculty satisfaction.

• At the completion of the program or course, the institution provides for assessment and documentation of student achievement in each course.

On behalf of ___________________________ (Institution), I assert that the preceding Coordinating Board criteria have been met for all courses associated with this program that will be delivered electronically and off-campus face-to-face.

______________________________
Chief Academic Officer or President

______________________________
Date

______________________________
Name: _______________________

______________________________
Title: _______________________

THECB 4/2014
DISTANCE EDUCATION
ELECTRONIC TO INDIVIDUALS (ONLINE DELIVERY) APPROVAL FORM

Submitted by:

☐ Texas A&M University
☐ Texas A&M University–Central Texas
☐ Texas A&M University–Commerce
☐ Texas A&M University–Corpus Christi
☐ Texas A&M University–Kingsville
☐ Texas A&M University–San Antonio
☐ Texas A&M University–Texarkana
☐ Texas A&M International University
☐ Prairie View A&M University
☐ Tarleton State University
☐ West Texas A&M University
☐ Texas A&M Health Science Center

Distance Education: Electronic to Individuals (online Delivery) Authorization Request

Please list the proposed degree and CIP code:

Degree: Master of Laws

CIP Code: 22.0201.00 (Advanced Legal Research/Studies, General)

When is the effective date of the proposed program?

Effective Date: Fall 2016

**Please note:** This proposed program cannot be advertised as an online delivered degree program until the A&M System Office of Academic Affairs has approved it and the Texas Higher Education Coordinating Board has been notified.

Summary of Proposal (Include Background Information and Rationale for the change.)

The proposed Master of Laws (LL.M.) at the School of Law will provide a year of concentrated post-graduate legal study for practicing lawyers or graduates of foreign or domestic law schools. The LL.M. is the most common second law degree offered by U.S. law schools, and it appeals to a wide range of applicants, including: (1) foreign lawyers and law graduates seeking training in U.S. legal doctrine and skills; (2) U.S. lawyers and law graduates wishing to pursue advanced study in chosen areas of focus.

The proposed LL.M. program will consist of at least twenty-four credit hours, and students may be enrolled on either a fulltime or part-time basis. LL.M. students will be required to complete at least one writing course in a chosen area of interest. In addition, students who do not have a Juris Doctor from an A.B.A.-approved law school must take a concentrated introductory course on the US legal and business environment, which will be designed specifically for this program and taught exclusively to LL.M. students. The School of Law’s LL.M. program will operate initially as a general degree, and all LL.M. students will
select their courses of study in close consultation with School of Law advisors and faculty. Each student enrolling in the general LL.M. program will be required to successfully complete at least three upper-level courses in a chosen area of focus. Specific LL.M. concentrations may be developed by the School of Law in the future.

Offering up to 100% of the courses in this degree program through online delivery will provide students additional scheduling and curricular flexibility. In addition, by incorporating more online courses into this degree, we expect to expand the number of students who will be able to enroll. We propose no change to the existing LL.M. educational objectives.

Financial Implications:

The School of Law is currently authorized by the American Bar Association to accept up to 24 fulltime students in its general LL.M. program. The program will have an online component allowing students to complete some of the courses through electronic delivery. The present request seeks authorization to offer up to 100% of the LL.M. degree requirements online. Assuming a maximum enrollment of 24 students, offering this degree program fully online would not have a significant financial impact on the School of Law. The School of Law currently offers some of its courses online, and it is in the process of converting more of its courses to online versions. The costs of doing so have been included in the existing IT budget for the School of Law. We anticipate no additional costs for the development of online courses for the 24 students currently approved. Revenue generated from the LL.M. program with an enrollment of 24 students is approximately $400,000.

The School of Law is planning to expand online enrollment in its LL.M. program, assuming those expansions are approved by the American Bar Association and other regulating entities. In particular, online enrollment may grow quickly with a recruiting service provided by an outside marketing company. By FY 2019, the School of Law hopes to have approximately 350 students enrolled in online LL.M. programs. If our online program expands to this degree, we will have a more robust offering of online courses for students. Revenue generated from these programs is estimated to be approximately $2.5 million once fully operational. The intent is to also have the programs provide additional net income once fully operational as the School of Law will be able to leverage the administrative and academic support services currently provided to its students with no additional cost.

University: Request for Authorization

I recommend adoption of the following program:

*Having complied with all of the requirements of the Texas Higher Education Coordinating Board, Texas A&M University is hereby authorized to offer the Masters of Engineering in Mechanical*
Engineering program by distance education, electronic to individuals (online delivery) effective Spring 2015.

The Texas A&M University System Office of Academic Affairs finds that the program offering aforementioned is within the role and scope and capacity of the institution and will benefit students.

Texas A&M University certifies that the proposed distance delivery of the aforementioned program meets the criteria under Texas Administrative Code Chapter 4 Subchapter P regarding quality of the curriculum and courses; delivery of instruction; evaluation, training, supervision, and support of faculty; financial resources; and admission of the support services for students. The program is within the role and mission of the institution and in the Table of Program. The institution will comply with the standards and criteria of the Commission on Colleges of the Southern Association of Colleges and Schools and will adhere to criteria outlined in the Principles of Good Practice for Degree and Certificate Programs and Courses Offered Through Distance Education.”

Approval – University:

Karan L. Watson
Provost and Executive Vice President for Academic Affairs

Date

Authorization: System

Approval – Texas A&M University System:

James R. Hallmark, Ph.D.
Vice Chancellor for Academic Affairs

Date
Texas A&M University - New Certificate Proposal

Program request type: ☐ Undergraduate  ☒ Graduate  ☐ First Professional (ex., DVM, JD, MD, etc.)

Requested by the Department or Unit of: College of Nursing

**Program Type, Level, Designation, Title, Description, Hours**

<table>
<thead>
<tr>
<th>Program Type:</th>
<th>Certificate Program</th>
<th>Degree Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Level:</td>
<td>☐ UG Certificate</td>
<td>☒ Grad Certificate</td>
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<tr>
<td>Degree Designation (i.e., BS, BA, MA, MS, MAg, MEd, PhD, EdD, etc.)</td>
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<tr>
<td>Title of proposed program:</td>
<td>Graduate Certificate in Forensic Healthcare</td>
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<table>
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<tr>
<th>Proposed CIP Code (if known):</th>
<th>51.3899</th>
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</thead>
</table>

Brief program description (provide a catalog description for undergraduate and graduate certificates):

The online Graduate Certificate Program in Forensic Healthcare is for degreed professionals who work with individuals, families, and communities impacted from all forms of violence. The program is appropriate for responders and providers of services to victims of violence including healthcare providers, social workers, members of law enforcement and the judicial system. Students enrolled in this didactic 12-semester credit hour Academic Certificate Program will complete 3 core courses: a 2.0 lecture hour courses and two 3.0 hour lecture hour courses (8 hours), and four additional hours of prescribed, didactic elective courses. Overarching concepts taught in the Graduate Certificate Program in Forensic Healthcare include victimology, justice, survivorship and prevention.

<table>
<thead>
<tr>
<th>Minimum program semester credit hours (SCH)</th>
<th>Certificates - 12 hours*</th>
<th>Bachelors - 120 hours</th>
<th>Masters - 30 hours</th>
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</thead>
<tbody>
<tr>
<td>Proposed program hours:</td>
<td>12 hours</td>
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</table>

*12 hours minimum to appear on transcript

Certificate Programs  ☒ Embedded  ☐ Standalone

Students take coursework that will result in a degree and certificate being earned at the same time.  Non-degree seeking students take coursework to earn a certificate only (no degrees are awarded).

**Off-Campus or Distance Delivery**

<table>
<thead>
<tr>
<th>% of Program a student can take off-campus or through Distance Education</th>
<th>Program Start Date</th>
<th>SACSCOC Approval**</th>
<th>When Provost needs to inform SACSCOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 25%</td>
<td></td>
<td>Notification Only</td>
<td></td>
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<tr>
<td>☐ 50%</td>
<td></td>
<td>Approval Required</td>
<td>6 months before first day of program</td>
</tr>
<tr>
<td>☐ 80%</td>
<td></td>
<td>Approval Required</td>
<td>6 months before first day of program</td>
</tr>
<tr>
<td>☒ 100%</td>
<td>Fall 2016</td>
<td>Approval Required</td>
<td>6 months before first day of program</td>
</tr>
</tbody>
</table>

**Notification letter arranged through the Vice Provost for Academic Affairs and sent by TAMU President.**

**Program Delivery Mode**

- Location
- ☐ On-campus
- ☐ Broadcast / TTVN
- ☐ Specific off-campus location***
- ☒ Distance Education / Internet  ☒ In-State  ☐ Out-of-State  Start Date  Fall 2016
- ☐ Out-of-Country

Will this program be offered with another institution? ☐ Yes  ☒ No

If yes, contact the Vice Provost for Academic Affairs for additional reporting requirements.

**Program Funding**

Has program funding been finalized at the department or college level?  ☒ Yes  ☐ No

If no, explain or attach budget: ____

Will new costs for the first five years of the program be under $2 million?  ☒ Yes  ☐ No

---

***Is this an approved SACSCOC location?  ☒ Yes  ☐ No

If no, a program prospectus must be sent to SACSCOC. Approved locations as of March 2012: TAMU-Galveston, TAMU-Qatar, University Center-The Woodlands, CityCentre-Houston, Dubai and Saudi Arabia.
Submitted by (Contact Person):

Kevin P. Gosselin
Name
Assistant Dean for Graduate Studies
Title

gosselin@tamhs.edu
Email
979-436-0153
Phone

Certification Statement
By signing below, the Dean of the College certifies the proposed program complies with coordinating board standards. If the program is delivered through Distance Education, the Dean of the College certifies that they are following the Principles of Good Practice for Academic Degree and Certificate Programs and Credit Courses Offered Electronically.

Signature, Department Head or Interdisciplinary Program Chair
Typed or Printed Name
Chair, College Review Committee
Typed or Printed Name
Dean of College
Typed or Printed Name
Chair, University Curriculum Committee or Graduate Council

Date
Date
Date
Date

Additional Approvals Required: Faculty Senate and President.
New Program Request Form for Certificate Programs

Directions: An institution shall use this form to propose a new bachelor’s or master’s degree program. In completing the form, the institution should refer to the document Standards for Bachelor’s and Master’s Programs, which prescribes specific requirements for new degree programs. Note: This form requires signatures of (1) the Chief Executive Officer, certifying adequacy of funding for the new program; (2) a member of the Board of Regents (or designee), certifying Board approval, and (3) if applicable, a member of the Board of Regents or (designee), certifying that criteria have been met for staff-level approval. NOTE: Preliminary authority is required for all engineering programs. An institution that does not have preliminary authority for a proposed engineering program shall submit a separate request for preliminary authority prior to submitting the degree program request form. That request shall address criteria set in Coordinating Board rules Section 5.24 (a).

Administrative Information

1. **Institution:** Texas A & M Health Science Center

2. **Program Name** – Show how the program would appear on the Coordinating Board’s program inventory (e.g., *Bachelor of Business Administration degree with a major in Accounting*):
   **Graduate Certificate in Forensic Healthcare**

3. **Proposed CIP Code:** 51.3899

4. **Brief Program Description** – Describe the program and the educational objectives:
   
The online Graduate Certificate Program in Forensic Healthcare is for degreed professionals who work with individuals, families, and communities impacted from all forms of violence. The program is appropriate for responders and providers of services to victims of violence including healthcare providers, social workers, members of law enforcement and the judicial system. Students enrolled in this didactic 12-semester credit hour Academic Certificate Program will complete 3 core courses: one, 2-hour lecture course plus two, 3.0 lecture hour courses (8 hours), and four additional hours of prescribed, didactic elective courses. Overarching concepts taught in the Graduate Certificate Program in Forensic Healthcare include victimology, justice, survivorship and prevention.

   **Program outcomes:**
   
   1. Respond to victims and perpetrators of trauma, injury, accidents, neglect, abuse, exploitation, and all forms of violence using evidence-based protocols within systems.
   2. Translate current research and policies to clinical encounters with persons experiencing violence, injury, trauma, accidents, neglect, abuse, exploitation, and all forms of victimization.
   3. Articulate the role and processes of criminal and civil courts in seeking justice for victims of violence.
   4. Document techniques to collect and preserve evidence with integrity, competence, and respect.
   5. Formulate interdisciplinary approaches within systems to address health-related problems associated with accidents, trauma, crime, victimization, abuse, neglect, exploitation, and all forms of violence.
   6. Integrate knowledge of cultural diversity in working with victims and survivors of violence.
   7. Advocate for the needs and interests of victims of violence to improve access to services.

Revised 01.14.2014
8. Design interdisciplinary education and crime prevention strategies to address community needs at the primary, secondary and tertiary prevention levels.

Number of Semester Credit Hours Required – 12

5. Administrative Unit – Identify where the program would fit within the organizational structure of the university (e.g., *The Department of Electrical Engineering within the College of Engineering*):
   College of Nursing

6. Proposed Implementation Date – Report the first semester and year that students would enter the program:
   Fall 2016

7. Contact Person – Provide contact information for the person who can answer specific questions about the program:

   Name: Daniel J. Sheridan, Ph.D., RN
   Title: Professor & Forensic Nursing Program Director
   E-mail: dsheridan@tamhsc.edu
   Phone: 979-436-0177

**Program Information**

**I. Need**

*Note: Complete I.A and I.B only if preliminary authority for the program was granted more than four years ago. This includes programs for which the institution was granted broad preliminary authority for the discipline.*

A. Job Market Need – Provide short- and long-term evidence of the need for graduates in the job market.

This certificate program is interdisciplinary in nature. We anticipate having degreed professionals from a variety of health, social services and legal professions apply for this graduate certificate program of study such as: nursing, social work, criminal justice, law enforcement, protective services (adult & child), and medicine. Forensic healthcare involves providing specialized interdisciplinary interventions to many types of victims such as: child abuse/neglect, elder abuse/neglect, abuse and neglect of vulnerable persons with disabilities, intimate partner violence, and sexual assault.

For example, the number of hospital-based forensic nurse examiner programs is rapidly growing. In the 1980s there were a handful of programs nationally. Per the International Association of Forensic Nurses, there are now over 800 such programs. This number is expected to continue to grow, especially in rural
America. Nurse who manage and work within these programs usually have only completed continuing education courses in forensic healthcare. In fact, in a recent forensic nursing textbook, Vice-President Joe Biden is quoted stating there should be a forensically trained nurse in every emergency department. The knowledge being generated in field of forensic science is growing exponentially. Dr. Sheridan is a past President of the International Association of Forensic Nurses and participates in numerous national and international interdisciplinary forensic educational activities.

The National Adult Protective Service Association (NAPSA) is a membership organization with member representation from all State adult protective service (APS) departments. Within NAPSA there is sub-committee of APS nurses from approximately 10 states around country. Most of these APS nurses were first trained as forensic nurse examiners. The trend within State APS departments is to hire forensically trained nurses. Dr. Sheridan has already made outreach to the Texas APS department who is interested in hiring forensic nurses with academic training and clinical experience to be part of county investigations. He is organizing meetings in Austin in early 2016 with Texas Department of Family and Protective Service administrators. In addition, APS administrators in other states have voiced at the national conference an urgent need to academic forensic education of protective service supervisory and line staff. NAPSA members also include state and local leaders from law enforcement agencies. They too have voiced the need for quality academic certificate-based education focused on real world applications.

Dr. Sheridan has had telephone and email communication with the directors of over 10 rural, hospital-based forensic nurse examiner program coordinators. All have expressed an interest in personally enrolling or having select forensic staff enroll in a forensic healthcare certificate program, may expressing it as a prelude to entering a graduate program of study specializing in forensic healthcare.

B. **Student Demand** – Provide short- and long-term evidence of demand for the program.

Dr. Sheridan is an active member of the Assembly of Forensic Nurse Educators (AFNE) housed at the University of Alabama Birmingham School of Nursing which meets approximately twice a year to network on the direction and needs of forensic healthcare education. The AFNE is a think tank of approximately 20 doctorally prepared nurse educators with forensic training who are currently or have taught undergraduate and graduate level forensics course at the college or university level. Most of the existing forensic academic courses are currently being taught as electives within undergraduate programs of study. The AFNE’s most recent meeting was at the October 2015 IAFN Annual Scientific Conference where there was consensus that there is a demand for interdisciplinary forensic healthcare education, especially at the graduate level. Presently, there is not a university-based academic graduate certificate in forensic healthcare. This certificate would fill that void.
C. Enrollment Projections – Use this table to show the estimated cumulative headcount and full-time student equivalent (FTSE) enrollment for the first five years of the program. (*Include majors only and consider attrition and graduation.*)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headcount</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>FTSE</td>
<td>0</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

II. Quality

A. Certificate and Degree Requirements – Use this table to show the certificate and degree requirements of the program. (*Modify the table as needed; if necessary, replicate the table for more than one option.*)

<table>
<thead>
<tr>
<th>Category</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Core Curriculum</td>
<td>0</td>
</tr>
<tr>
<td>(bachelor’s degree only)</td>
<td></td>
</tr>
<tr>
<td>Required Courses</td>
<td>8</td>
</tr>
<tr>
<td>Prescribed Electives</td>
<td>4</td>
</tr>
<tr>
<td>Free Electives</td>
<td>0</td>
</tr>
<tr>
<td>Other (Specify, e.g., internships, clinical work)</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
</tr>
</tbody>
</table>

B. Curriculum – Use these tables to identify the required courses and prescribed electives of the program, and curriculum as it will appear in the undergraduate and graduate catalog. Note with an asterisk (*) courses that would be added if the program is approved. (*Add and delete rows as needed. If applicable, replicate the tables for different tracks/options as shown in the undergraduate catalog.*)

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Required Courses</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 601*</td>
<td>Foundations of Forensic Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>NURS 602*</td>
<td>Victimology: Clinical Implications and Applications</td>
<td>3</td>
</tr>
<tr>
<td>NURS 603*</td>
<td>Justice Today: Prevention Tomorrow</td>
<td>3</td>
</tr>
<tr>
<td>CORE COURSE SCH</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
### Prescribed Elective Courses (students choose combination totaling 4 credits)

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Prescribed Elective Courses</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 604</td>
<td>Advanced Trauma Assessments and Injury Pathology</td>
<td>2</td>
</tr>
<tr>
<td>NURS 6XX*</td>
<td>Forensic Sexual Assault Examiner Course</td>
<td>3</td>
</tr>
<tr>
<td>NURS 6XX*</td>
<td>Clinical Pharmacology: Implications for Victims of Violence</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX*</td>
<td>Human Trafficking</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX*</td>
<td>Forensic Photography</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX</td>
<td>Drug Facilitated Sexual Assault</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX</td>
<td>Policy and Ethics of Interpersonal Violence</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX</td>
<td>Forensic Mental Health</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX</td>
<td>Forensic Report Writing</td>
<td>1</td>
</tr>
<tr>
<td>NURS 6XX</td>
<td>Overview of Capacity of Vulnerable Persons</td>
<td>1</td>
</tr>
</tbody>
</table>

(Students may take electives totaling 4 credits)

Elective option total 21

---

#### C. Faculty

Faculty – Use these tables to provide information about Core and Support faculty. Add an asterisk (*) before the name of the individual who will have direct administrative responsibilities for the program. *(Add and delete rows as needed.)*

<table>
<thead>
<tr>
<th>Name of Core Faculty and Faculty Rank</th>
<th>Highest Degree and Awarding Institution</th>
<th>Courses Assigned in Program</th>
<th>% Time Assigned To Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g.: Robertson, David Asst. Professor</td>
<td>PhD. in Molecular Genetics Univ. of Texas at Dallas</td>
<td>MG200, MG285, MG824 (Lab Only)</td>
<td>50%</td>
</tr>
<tr>
<td>*Sheridan, Daniel Professor</td>
<td>PhD in Nursing, Oregon Health Sciences University</td>
<td>NURS 603, 604, electives</td>
<td>10%</td>
</tr>
<tr>
<td>Downing, Nancy Associate Professor</td>
<td>PhD in Nursing, University of Iowa</td>
<td>NURS 601, 602, 603, electives</td>
<td>40%</td>
</tr>
<tr>
<td>Utterback, Virginia Clinical Associate Professor</td>
<td>PhD in Curriculum and Instruction, Texas Tech University</td>
<td>NURS 601, electives</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Revised 01.14.2014*
<table>
<thead>
<tr>
<th>Name of Support Faculty and Faculty Rank</th>
<th>Highest Degree and Awarding Institution</th>
<th>Courses Assigned in Program</th>
<th>% Time Assigned To Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. Students – Describe general recruitment efforts and admission requirements. How will students be accepted into the program? In accordance with the institution’s Uniform Recruitment and Retention Strategy, describe plans to recruit, retain, and graduate students from underrepresented groups for the program.

**Admission requirements:**

Baccalaureate degree or higher with a minimum cumulative GPA of 3.0 (on a 4.0 scale) in all undergraduate coursework with a minimum grade point average of 3.0 (on a 4.0 scale) in the last 60 hours of undergraduate coursework. Admissions will be competitive and capped per cohort to maximize online learning.

**References:** Three academic and/or professional references

**TOEFL score:** Required for international applicants

**Recruitment:**

A multi-prong recruitment strategy will be used using activities such as: Open access listserves with the International Association of Forensic Nurses, the National Adult Protective Services Association, the National Association of Social Workers; the National Geriatric Nurses Association, the Emergency Nurses Association targeting Texan residents. Targeted vendor participation would be explored at State of Texas and national conferences of associations such as those listed above. Paid email blast and website advertisements will be utilized with member associations such as those listed above. The following will receive a direct email announcement of the Forensic Healthcare Certificate offering: the Texas Chapter of the International Association of Forensic Nurses; the Texas chapter of the Emergency Nurses Association; the Texas Chapter of the National Association of Social Workers; Texas members of the National Adult Protective Services Association; and all protective service workers within the Texas Department of Family Protective Services. Information on the Forensic Healthcare Certificate program will be distributed through the Texas Law Enforcement Extension Program – TEEX and will be included on the A&M College of Nursing web page and also posted throughout the A&M marketing sites.
E. Library – Provide the library director’s assessment of library resources necessary for the program. Describe plans to build the library holdings to support the program. (Dan and Ann sent template to evaluate alignment with program)

The Associate Dean and Director of the Medical Sciences Library (MSL) reports that the University libraries serve both the research and study needs of students and faculty across campus and ranks 23rd in collection expenditures ($18.4 million) among U.S. academic libraries. The University libraries encompass five facilities plus the online library. According to the Association of Research Libraries statistics for 2013, total library expenditures were over $35.4 million. The combined holdings of these libraries include over 4 million volumes.

One of these libraries, MSL, serves as the anchor library for the nursing program, with an ever expanding collection of resources in health care, life sciences, and public health areas that are relevant to the nursing program. The MSL occupies over 50,000 square feet and contains holdings of more than 150,000 print volumes. The major strength of this library is the size of its specifically targeted offerings, with over $2.7 million in annual collections expenditures for materials that support the professional programs at the TAMHSC. Those targeted collections include access to over 18,000 print and online serial titles, over 65,000 print and online books and nearly 500 databases. The broader-scope collection of the University libraries includes over 1 million electronic books, over 870,000 graphic, cartographic, audio and visual materials, over 123,000 unique serial titles, and over 1,300 electronic databases.

The onsite and online collections at the University are enhanced through collaborations with other academic and health sciences libraries to support resource sharing. The University libraries participate actively in both the Greater Western Library Alliance (GWLA) and Rapid interlibrary lending networks to ensure rapid delivery of resources from other libraries. The MSL participates in academic health science libraries resource sharing networks as well. As a result of these various collaborations, students and faculty can receive expedited service for materials needed from other libraries. The Get It for Me service provides desktop delivery of information resources from the University collections and other library collections. Seven separate libraries and learning resource centers that serve the TAMHSC have established a consortium, the Health Science Center Alliance of Libraries, to ensure information access to all health-related institutions and to the librarians serving them. Nursing students have full checkout and electronic access to the Alliance libraries whose members provide a vast array of databases, full text journals, and other information resources of interest to nurses and other health practitioners.

Currency of information is a prime consideration in the study and teaching of nursing; therefore, the MSL is continually adding to its collection in both print and online, including a purchase program that is updated weekly to
provide access to online books as they are published. Students and faculty can request additions to the collection through phone, e-mail and from the library website. Library staff routinely assess the collection for adequacy of coverage and currency.

Students and faculty have access to reference services in person, over the phone, through email and online via a live chat format. Library staff assist students in using online resources, web pages and resource guides at any geographical location. Educational services include traditional in-person instructional sessions, online subject guides and tutorials, and customized programs. MSL librarians also provide library related informatics orientation and instruction for all incoming students within the nursing curriculum. Online students receive a more in-depth, hands-on experience at the on-campus orientation.

The library will be requested to purchase a master set of required textbooks. Since this certificate program is online, students would be expected to purchase individual copies of the required textbooks.

F. Facilities and Equipment – Describe the availability and adequacy of facilities and equipment to support the program. Describe plans for facility and equipment improvements/additions. (Dan and Ann sent template to evaluate alignment with program)

The Health Profession Education Building (HPEB) located on the Bryan Campus was designed specifically to facilitate the mission and expansion of the institution. CON and College of Medicine share space in the HPEB facility which increases interactions between students and increases opportunities for interprofessional education. The facility is state of the art in terms of clinical simulation centers and audio-video equipment to facilitate distant education, learning, and communication. HPEB is a 138,307 square foot facility with 27,000 square feet of clinical simulation space, a 225-seat auditorium, three medium lecture halls that hold 104 to 109 people, five (5) small group rooms that each hold eight (8) students, an additional twelve (12) small group rooms that each hold ten (10) students, two (2) small seminar rooms that each hold 50 students, and a computer lab which also accommodates 50 students. The Clinical Learning Resource Center has a simulated home environment, nursery, two adjacent hospital rooms, labor and delivery room, and an operating and trauma room. There are two Fundamental Skills labs that are each over 1,750 square feet and have ten stations, 15 clinical exam rooms, a Physical Diagnosis lab with 15 stations, and an additional eight (8) generic simulation rooms equipped with human-patient simulators. All can easily be monitored and digitally recorded by faculty or simulation center staff members in an adjacent simulation control room.

The HPEB facility also houses the TAMHSC Division of Student Services; a Teaching and learning Resource Center designed to support teaching excellence; a copy center for student and faculty use; a student lounge; an Information Technology staffed Help Desk; and a Learning Resource Center (equipped to allow easy access to both electronic and physical resources, and
staffed with a full time librarian and learning resource specialists). The CON administration and faculty occupy 30 offices with access to conference rooms, a kitchen/break room area, and a work room within its wing on the top floor of the HPEB facility.

**Instructional Technology & Learning Management System**

Online students and faculty are supported through a variety of available technology resources to enhance learning for online students. All courses reside in the eCampus Learning Management System. Course files are available to students for viewing and downloading. Videos are accessed on a streaming media server that affords flexibility in downloading and streaming while retaining all of the necessary time-release, authentication, format, and other controls to honor copyright guidelines. Faculty use web conferencing software called Blackboard Collaborate™ for multiple purposes such as conducting virtual office hours with students, having student presentations in distance education courses, and encouraging cross-campus, distance peer group meetings.

The TAMHSC Office of Information Technology (OIT) provides network connections and technical support for all faculty, staff, and students. OIT works closely with the CON to provide software information and computer hardware support to its users. All faculty, staff, and students have access to 24/7 HelpDesk support. During normal business hours, the HelpDesk can be accessed via phone, email, or walk up services at HelpDesk locations. After hours, on-call personnel are called or paged to provide support. In addition, faculty and students receive direct support from the CON Instructional Designer and two supporting staff members for any instructional technology needs or troubleshooting.

The College of Nursing already supports online graduate education within its MSN Family Nurse Practitioner Program and its MSN Nurse Educator Program. This certificate program would utilize these already existing online hardware and software systems. Specialized forensic equipment is being purchased using the State-provided start-up funds and will become part of the course modules via photographic and videotaped demonstrations of their use in current forensic practice.

**G. Accreditation** – If the discipline has a national accrediting body, describe plans to obtain accreditation or provide a rationale for not pursuing accreditation.

This is not applicable to the certificate program.

**H. Evaluation** – Describe the evaluation process that will be used to assess the quality and effectiveness of the new degree program.

The program evaluation process for the certificate program will employ multiple indictors to determine overall program success. Multiple assessment measures such as program completion rate, summative-level course projects.
and examinations, as well as student, alumni, and employer satisfaction survey results will be used to determine program outcomes achievement. Program outcome indicator data will be evaluated according to the Graduate Certificate outcomes. Action plans will be developed in situations where a gap between outcome data and terminal outcome expectation is identified in order to provide continuous program improvement. The program evaluation process will be conducted annually. The results of the annual program evaluation process will be reported to the Graduate Curriculum Committee and Faculty of the Whole.

I. Administration of Program – Describe how the program will be administered. Where will the program be administered (i.e., department, college)?

The program will be administered through the College of Nursing. Daniel J. Sheridan, PhD, RN, FAAN serves as the director for forensic healthcare initiatives within the college and will have oversight in carrying out certificate program initiatives and quality.

III. Costs and Funding

Five-Year Costs and Funding Sources - Use this table to show five-year costs and sources of funding for the program.

<table>
<thead>
<tr>
<th>Five-Year Costs</th>
<th>Five-Year Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>$638,318</td>
</tr>
<tr>
<td>Reallocated Funds</td>
<td>$0</td>
</tr>
<tr>
<td>Facilities and Equipment</td>
<td>$4,712</td>
</tr>
<tr>
<td>Anticipated New Formula Funding³</td>
<td>$411,985</td>
</tr>
<tr>
<td>Library, Supplies, and Materials</td>
<td>$32,800</td>
</tr>
<tr>
<td>Special Item Funding</td>
<td>$71,562</td>
</tr>
<tr>
<td>Other²</td>
<td>$19,350</td>
</tr>
<tr>
<td>Other³</td>
<td>$304,800</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td><strong>$695,180</strong></td>
</tr>
<tr>
<td><strong>Total Funding</strong></td>
<td><strong>$788,347</strong></td>
</tr>
</tbody>
</table>

1. Report costs for new faculty hires, graduate assistants, and technical support personnel. For new faculty, prorate individual salaries as a percentage of the time assigned to the program. If existing faculty will contribute to program, include costs necessary to maintain existing programs (e.g., cost of adjunct to cover courses previously taught by faculty who would teach in new program).
2. Specify other costs here (e.g., administrative costs, travel). Travel $10,590, Faculty development $4,800, Telecommunications $3,960.
3. Indicate formula funding for students new to the institution because of the program; formula funding should be included only for years three through five of the program and should reflect enrollment projections for years three through five.
4. Report other sources of funding here. In-hand grants, “likely” future grants, and designated tuition and fees can be included. Designated, State and Differential tuition is included.
Signature Page

1. Adequacy of Funding – The chief executive officer shall sign the following statement:

   I certify that the institution has adequate funds to cover the costs of the new program. Furthermore, the new program will not reduce the effectiveness or quality of existing programs at the institution.

   ___________________________________________  ______________________
   Chief Executive Officer                 Date

2. Board of Regents or Designee Approval – A member of the Board of Regents or designee shall sign the following statement:

   On behalf of the Board of Regents, I approve the program.

   ___________________________________________  ______________________
   Board of Regents (Designee)                 Date of Approval

3. Board of Regents Certification of Criteria for Commissioner of Assistant Commissioner Approval – For a program to be approved by the Commissioner or the Assistant Commissioner for Academic Affairs and Research, the Board of Regents or designee must certify that the new program meets the eight criteria under TAC Section 5.50 (b): The criteria stipulate that the program shall:

   (1) be within the institution’s current Table of Programs;
   (2) have a curriculum, faculty, resources, support services, and other components of a degree program that are comparable to those of high quality programs in the same or similar disciplines at other institutions;
   (3) have sufficient clinical or in-service sites, if applicable, to support the program;
   (4) be consistent with the standards of the Commission of Colleges of the Southern Association of Colleges and Schools and, if applicable, with the standards or discipline-specific accrediting agencies and licensing agencies;
   (5) attract students on a long-term basis and produce graduates who would have opportunities for employment; or the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution;
   (6) not unnecessarily duplicate existing programs at other institutions;
   (7) not be dependent on future Special Item funding
   (8) have new five-year costs that would not exceed $2 million.

   On behalf of the Board of Regents, I certify that the new program meets the criteria specified under TAC Section 5.50 (b).

   ___________________________________________  ______________________
   Board of Regents (Designee)                 Date
Informational Items
CHANGE IN CURRICULUM

IRMA LERMA RANGEL COLLEGE OF PHARMACY
PHARMDO IN PHARMACY
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: □ Undergraduate □ Graduate □ First Professional (ex., DVM, JD, MD, etc.)
   □ Degree Program □ Minor □ Certificate

2. Request change for:

3. Request submitted by (Department or Program Name):
   College of Pharmacy

4. Program Designation and Name
   (e.g., B.A. in History, Minor in History, Certificate in European Union):
   Doctor of Pharmacy (PharmD)

5. Brief description of change:
   PHAR 856 Pharmacoeconomics (2 SCH) course will be discontinued. 1 SCH of pharmacoeconomic content will be added to PHAR 756 Pharmacy Management increasing the SCH in that course from 2 to 3. The course will be renamed PHAR 757 Pharmacy Management and Pharmacoeconomics. A new course PHAR 873 Pharmacy Professionalism (1 SCH) will be created. Three new advanced pharmacy practice experiential courses will be added: PHAR 820 APPE: Elective I (6 SCH), PHAR 821 APPE: Elective II (6 SCH); PHAR 822 APPE: Elective III (6 SCH).

6. Rationale for change:
   New pharmacy accreditation standards (Standards 2016) require that pharmacy graduates have the ability to demonstrate self-awareness, leadership, innovation, entrepreneurship and professionalism. The proposed new course PHAR 873 Pharmacy Professionalism is designed to address that standard. Curricular Affairs Committee review of accreditation standards determined that pharmacoeconomics content was over taught and that 1 SCH worth of pharmacoeconomics content was sufficient to meet accreditation standards. The 1 SCH of pharmacoeconomics content was therefore added to PHAR 756 renamed PHAR 757 Pharmacy Management and Pharmacoeconomics. Continuously adding new, narrowly APPE electives to the curriculum is cumbersome a more efficient approach will be used with generically defined Elective I, Elective II and Elective III courses.

7. Use the checkboxes below to make sure that all information is included.
   a. Proposed curriculum attached. □ Yes □ No
   b. Current catalog curriculum with handwritten edits attached. ✗ Yes □ No
   c. Current Howdy degree evaluation with handwritten edits attached. ✗ Yes □ No
   *Please make sure the attached proposed curriculum, catalog and Howdy degree evaluation match.*

8. a. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? □ Yes □ No
   b. If yes, degree program hours will change from: _________ to: _________
   c. If yes, is the Texas Higher Education Coordinating Board form attached? □ Yes □ No

9. If proposed changes affect other unit(s), are letters of support attached? □ Yes □ No

IMPORTANT NOTE: Curriculum changes submitted through the approval process and fully approved by February (December-UCC/GC, January-Faculty Senate, February-President) will be effective in the next academic year. Changes requiring approval beyond the University should complete the internal approval process early in the fall semester whenever possible in order to ensure timely implementation.

Approval recommended by:

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

Dean of College  Date

Chair, College Review Committee  Date

Chair, GC or UCC  Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 04/14
Doctor of Pharmacy

The Doctor of Pharmacy (Pharm. D.) degree program aims to increase representation in the pharmacy profession by the traditionally underrepresented demographic groups of South Texas, provide the population of South Texas access to a high quality Pharm. D. program, support advanced research in pharmaceutical care issues pertinent to South Texas, enhance health outcomes, and expand the scope and depth of regional health care service activities.

Educational Objectives

The Irma Lerma Rangel College of Pharmacy prepares entry-level pharmacy practitioners with the essential abilities necessary to become competent professionals, as evidenced by the ability to pass the national licensing exam (NAPLEX) on the first attempt.

The required core competencies to be attained by Pharm. D. students are grouped into the following categories:

- Communicating with patients and health professionals
- Applying basic science to practice
- Problem-solving and decision-making
- Dispensing pharmaceuticals
- Providing pharmaceutical care
- Performing professionally and ethically
- Managing and supervising within pharmacy practice

Each of the above categories has specific learning objectives that each student is expected to satisfy over his or her course of study.

Program Requirements

Courses that comprise the core curriculum of the Irma Lerma Rangel College of Pharmacy curriculum leading to the Doctor of Pharmacy degree are described below. The core includes both required and elective coursework. The courses below are listed by year and consist of didactic, laboratory, practice experience (introductory and advanced) and post-experiential offerings. Each course is shown with designations of pre-and/ or corequisites where applicable.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Spring</th>
<th>Term Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHAR 626</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 627</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>PHAR 641</td>
<td>Pharmaceutical Calculations</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 610</td>
<td>Principles Drug Action I</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 656</td>
<td>Health Care Systems</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 672</td>
<td>Introduction to Patient Care</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 671</td>
<td>Clinical Communications</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 605</td>
<td>IPPE I: Introductory Pharmacy Practice Experiences</td>
<td>1</td>
</tr>
<tr>
<td>PHAR 601</td>
<td>Forum / Student Portfolios / Professional Development I</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Spring</th>
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<tbody>
<tr>
<td>PHAR 673</td>
<td>Self Care and Non-Prescription Medications</td>
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| PHAR 611 | Principles Drug Action II | 2 |
| PHAR 626 | Research Methods/Biostatics | 2 |
| PHAR 656 | Public Health and Pharmacoeconomics | 2 |
| PHAR 642 | Pharmacology I | 4 |
| PHAR 657 | Pharmacy Law and Ethics | 3 |
| PHAR 606 | IPPE II: Introductory Pharmacy Practice Experiences | 1 |
| PHAR 801 | Forum / Student Portfolios / Professional Development I | 1 |

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<tr>
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<td>Pharmacology II</td>
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<td>PHAR 710</td>
<td>IPT I: Electrolytes, Acid Base, and Kidney Diseases</td>
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<td>IPT II: Cardiovascular Diseases</td>
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<td>PHAR 721</td>
<td>Nutrition, Vitamins, Complementary and Alternative Medicine</td>
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<td>PHAR 712</td>
<td>IPT III: Endocrinology and Metabolic Diseases</td>
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<td>PHAR 713</td>
<td>IPT IV: Neurology and Pain Management</td>
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<td>PHAR 778</td>
<td>Drug Literature Evaluation and Patient Drug Education</td>
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<td>IPPE: Institutional Pharmacy Practice</td>
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<td>PHAR 841</td>
<td>Toxicology and Poison Management</td>
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<td>Introduction to Pharmacoeconomics</td>
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<td>PHAR 810</td>
<td>IPT V: Psychiatry and Addiction</td>
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<td>IPT VI: Critical Care, GI, Pulmonary, Rheumatic, Ophthalmology and Dermatology</td>
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Social, Behavioral, and Psychiatric Aspects of Patient Care | 2 |
### Elective Term Semester Credit Hours

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### Spring Term Semester Credit Hours

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<td>PHAR 805</td>
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### Total Semester Credit Hours: 148

### Course Credits

The learning format of the class governs the number of Semester Credit Hours (SCH) a particular course is given. The following guidelines were used to make these determinations:

- Didactic Courses: 1 x 50 minutes = 1 Semester Credit Hour
- Seminar Courses: 2 x 50 minutes = 1 Semester Credit Hour
- Laboratory Courses: 3-4 x 50 minutes = 1 Semester Credit Hour
- Recitation Courses: 3-4 x 50 minutes = 1 Semester Credit Hour (e.g., case studies)

For experiential courses, semester credit hours assigned are described in the course syllabus and typically 8 or more 50 minute sessions equals 1 semester credit hour.

### Requirements for Graduation

A candidate for the Doctor of Pharmacy (Pharm. D.) degree must meet all of the following requirements to be eligible to graduate:

- Satisfactorily meeting all requirements for admission
- Satisfactorily complete all curriculum requirements including:
  - the total number of semester credit hours
  - all specified didactic and experiential coursework
  - passing all applicable comprehensive benchmark assessment activities

- Completion of all final administrative or other requirements (e.g., final debts to the college or Texas A&M University)
- Satisfactorily complete all Student Portfolio assignments
- Have a cumulative grade point average of 2.5 or higher for the total degree program requirements
- Complete all immunization certification requirements
- Complete an exit interview with the Texas A&M University Scholarships & Financial Aid and the college's Office of Student Affairs
- Submit a graduation application by the due date to the Texas A&M University Office of the Registrar
- Pay any required graduation fees or outstanding debts to the Texas A&M University Student Business Services

A student failing to meet any of these requirements may not graduate until all requirements are met.
Detail Requirements

Changes not in effect until Class of 2019, 2020, etc.
Not apply to class of 2016, 2017, 2018

Detail Requirements

Information for Degree Evaluation
This is NOT an official evaluation.

Program Evaluation

Program: Doctor of Pharmacy
Campus: College Station
College: Pharmacy
Degree: Doctor of Pharmacy
Level: Professional Pharmacy
Majors: Pharmacy
Departments: College of Pharmacy
Catalog Term: Fall 2015 - College Station
Evaluation Term: Fall 2015 - College Station
Expected Graduation Date: 8
Request Number: 11
Results as of: Oct 08, 2015
Minors:
Concentrations:

Met Credits Courses
Required Used Required Used
Total Required: No 146.000 0.000 0
Program GPA: Yes .00 .00
Overall GPA: No 2.00 .00

Transfer:
0.000 0

This is NOT an official evaluation.

Area: PHMD-First Year First Term (18.000 credits) - Not Met
Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source
No A. PHAR 600 - 0hr
No AND B. PHAR 602 - 0hr
No AND C. PHAR 605 - 1hr
No AND D. PHAR 610 - 2hrs
No AND E. PHAR 626 - 4hrs
No AND F. PHAR 627 - 3hrs
No AND G. PHAR 641 - 2hrs
No AND H. PHAR 656 - 2hrs
No AND I. PHAR 671 - 2hrs
No AND J. PHAR 672 - 2hrs

Total Credits and GPA 0.000 .00

unofficial evaluation

Area: PHMD-First Year Second Term (18.000 credits) - Not Met
Met Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source
No A. PHAR 600 - 0hrs
No AND B. PHAR 601 - 1hr
No AND C. PHAR 602 - 0hr
No AND D. PHAR 606 - 1hr

unofficial evaluation

### Area: PHMD-Second Year First Term (17,000 credits) - Not Met

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Total Credits and GPA 0.000 .00

unofficial evaluation

### Area: PHMD-Second Year Second Term (17,000 credits) - Not Met

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Total Credits and GPA 0.000 .00

unofficial evaluation

### Area: PHMD-Year Three First Term (16,000 credits) - Not Met

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No  AND  D. PHAR 811 - 5hrs
No  AND  E. PHAR 814 - 1hr
No  AND  F. PHAR 841 - 2hrs
No  AND  G. PHAR 842 - 3hrs
No  AND  H. PHAR 872 - 2hrs

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Area: PHMD-Year Three Second Term (17,000 credits) - Not Met

Met  Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source

No  A. PHAR 800 - 0hr
No  AND  B. PHAR 801 - 1hr
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No  AND  D. PHAR 812 - 5hrs
No  AND  E. PHAR 813 - 3hrs
No  AND  F. PHAR 815 - 1hr
No  AND  G. PHAR 871 - 2hrs
No  AND  H. PHAR 872 - 2hrs
No  I. PHAR 875 - 3hrs

unofficial evaluation

Area: PHMD-Year Four (1,000 credits) - Not Met

Met  Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source

No  A. PHAR 805 - 1hr

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Area: PHMD - Electives (42,000 credits) - Not Met

Met  Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source

No  A. PHMD Electives - 42hrs

Students may select from two options for completing their elective coursework. Option I involves taking two semester credit hours of elective coursework in semesters 4, 5, and 6. Option II involves taking three semester credit hours of elective coursework in semesters 5 and 6 (6hrs total).

APPEs (36hrs):
- 4 required rotations: adult internal medicine, ambulatory care, community practice and hospital/health-system pharmacy.
- 2 elective rotations choose from: drug information, special populations (pediatrics, geriatrics, psychiatry), hospital, surgery, critical care, nutrition, rural health, women's health, academic, research (toxicology, drug delivery systems, drug
unofficial evaluation

Area: Work Not Applied - Met

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unofficial evaluation

Back to Display Options
New Courses

**PHAR 820. (0-6). Credit 6. APPE: Elective I.** Opportunities to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College. Prerequisite: Fourth year Pharmacy classification.

**PHAR 821. (0-6). Credit 6. APPE: Elective II.** Opportunities to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College; second course of two APPE required electives. Prerequisite: Fourth year Pharmacy classification.

**PHAR 822. (0-6). Credit 6. APPE: Elective III.** Opportunities for students to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College optional APPE elective. Prerequisite: Fourth year Pharmacy classification.

**PHAR 873. (0-3). Credit 1. Pharmacy Professionalism.** Review and assess the knowledge, skills, attitudes and behaviors required of a professional pharmacist; offered in a practicum format using active learning techniques and working together to understand the integration of content from the didactic curriculum in the development as professionals; grading based on a comprehensive curricular exam; attendance required. Prerequisite: Third year Pharmacy classification.

**Change in Course**

**PHAR 756. Pharmacy Management.**

<table>
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<th>Course title</th>
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<tr>
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<td>To: Pharmacy Management and Pharmacoeconomics.</td>
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Lecture contact hours and semester credit hours

| From: (2-0). Credit 2. |
| To: (3-0). Credit 3. |

Description

| From: This course introduces the role of management activities within the health care system. It presents skills for analyzing problems involving time, equipment, dollar and human resources in a health care environment. Emphasis is placed on developing problem-solving abilities within a framework of pharmacy management. |
| To: Introduction to leadership and management activities within the health care system; analyzing problems involving time, equipment, funding and human resources in a health care environment; emphasis on the role of the leader and developing problem solving abilities within a framework of pharmacy management; four pharmacoeconomic models, decision analysis methods and measuring humanistic, clinical and economic outcomes; emphasis on skills to evaluate pharmacoeconomic literature. |
NEW COURSES
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and attach a course syllabus.

Form Instructions:

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

2. Request submitted by (Department or Program Name):
   Select or Type Department/Program Name College of Pharmacy
   PHAR 820 APPE: Elective I

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

4. Catalog course description (not to exceed 50 words):
   Opportunities to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College.

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
   - [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?
   - [x] 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 programs(s) (e.g., B.A. in history)
       Doctor of Pharmacy PharmD
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

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

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

13. Prefix | Course # | Title (excluding punctuation)
   PHAR | 820 | APPE: ELECTIVE I

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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

   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
PHAR 820
APPE Elective I
FALL SEMESTER 2016

Course Coordinator
Name

Course Instructors (List ALL)
Name and title

Course Meeting Time
Office Hours
List proposed office hours here, by appointment is acceptable.

Office: (location)
List telephone number (can be main number) and e-mail address

Textbooks
Required
(List required texts here)
Recommended
(List recommended texts here)

Course Description
PHAR 820 6 Semester Credit Hours
Opportunities to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College.

Learning Objectives
Depending on the elective experience, the student may be able to:
1. Discuss the importance of the elective area to the profession of pharmacy.
2. Discuss the disease states commonly associated with the area of specialty, when appropriate.
3. Discuss the clinical pharmacology, toxicology, and pharmacokinetics of drugs commonly used in the area of specialty, when appropriate. Evaluate therapeutic regimens of patients seen in the specialty area, when appropriate.
4. Interview patients seen in the specialty area when appropriate.
5. Develop a monitoring plan for patients in the specialty area when appropriate.
6. Discuss the psychosocial and economic factors that influence the care of patients in the specialty area, when appropriate.
7. Identify therapeutic problems encountered by patients in the specialty area when appropriate.
8. Discuss individual patients with the preceptor and other health care providers when appropriate.
9. Identify and evaluate primary literature related to the specialty area.
10. Attend lectures, conferences, and presentations related to the specialty area.
11. Make presentations related to the specialty area to the preceptor, other health care providers, patients, and lay people, when appropriate.
12. Participate in the research activities of the preceptor, when appropriate.
13. Write an article pertinent to the specialty area, when appropriate.
14. Analyze published and unpublished data, when appropriate.
15. Attend and participate in the professional meetings and activities of the preceptor.
16. Participate in other professional activities as defined by the preceptor.
17. Define other specific outcomes as directed by the preceptor.

PHAR 820 will be conducted in accordance with the College-Wide Course Policies and Procedures as posted on the College Website http://pharmacy.tamhsc.edu/current/policies/index.html. Specifically this refers to the policies and procedures for: Disability Support Services, Grading Policy, Rounding Grades, Communication Devices, Student Communication, Active Student Engagement, Attendance Policy, Academic Integrity, Course and Instructor Evaluations, Audio/Video Recording, Examination Administration, Examination Question Review and Appeal, Chain of Command for Student Problems with the Course.

**Grading Policy**

Students will be evaluated on the basis of clinical knowledge, preparation, professional behaviors and abilities, and oral and written communication skills. At the conclusion of each of the advanced practice rotations, the preceptor will assign the student a grade based on the student's performance in the areas mentioned above. The preceptor will document in writing any deficiencies identified at the midpoint of the rotation that could result in an unsatisfactory grade to ensure that the student is aware of the deficiencies and has time to correct them before the final evaluation is completed. If the student does not improve to the satisfaction of the preceptor and an unsatisfactory grade is assigned, the student will be required to complete an additional rotation (faculty preceptor, if available) at the next available rotation opportunity. Students who repeat a rotation may have their graduation delayed. Any additional costs associated with this additional rotation (e.g., course registration, housing, transportation) will be the student’s responsibility.

During each experience, the student and preceptor will fill out evaluation tools to monitor the student's progress through the experience. All evaluations and assessments are completed electronically in E*Value™.

- An initial self-assessment must be completed by the student for each APPE. This allows the student to assess his/her skills and competency at the beginning of the rotation and gauge the growth of their knowledge and skills at midpoint and end of the rotation.
• **Mid-rotation** (approximately two to three weeks into the rotation) the student and the preceptor complete the APPE Student Professionalism Assessment and the Student Self-Assessment form. A mid-rotation conference between the preceptor and student must be scheduled and used to share information on the forms and to openly discuss the student’s progress. Unsatisfactory student progress must be reported to the Office of Experiential Education. Midpoint evaluation forms should be retained (Select — Save as a “Work In Progress” in E*Value™) to record the student assessment.

• **Final** evaluation occurs during the final week of the rotation. The student and preceptor will evaluate overall rotation performance. The student must complete a final self-assessment and the preceptor will complete the final assessment of the student. The preceptor uses the same form used at the midpoint evaluation to record the final assessment and comments. The final evaluation must be discussed with the student. Final evaluations should be submitted no later than the Monday following the last day of the rotation.

After the student has electronically submitted the — Preceptor Evaluation & Site Evaluation the student must complete and electronically submit the Preceptor Professionalism Evaluation. The information and comments submitted in this form are considered confidential and a composite of the information is shared with the preceptor ONLY after all rotations have ended. The Preceptor Professionalism Evaluation provides the student with the opportunity to nominate a preceptor for an Outstanding Preceptor or a Mentor award in recognition of their contributions to the student’s experience

Students will earn a grade in each experience. The students are evaluated by their preceptors on their performance of competencies using a grading rubric (5 being the highest value and 1 the lowest).

The program allows for a Non-Applicable (N/A) if the student has not been exposed to a specific competency during the rotation. Students are also evaluated on professionalism. **A minimum value of 3.5 must be achieved by the student on BOTH the Professionalism section and the Competency section to pass the rotation.**

Letter grades are awarded to the students as follows:

- Values of 4.48 to 5.0 is equivalent to an A
- Values of 3.98 to 4.47 is equivalent to a B
- Values of 3.5 to 3.97 is equivalent to a C
- Values below 3.5 are equivalent to a F

**Grades and Documents**

Students cannot be awarded a rotation grade until the following documents are submitted in E*Value™:

- APPE Evaluation Form by Preceptor *Midterm and Final
- Rotation hours logged by student and verified by preceptor
- Evaluation of Preceptor, Evaluation of Site, and Student Self-Evaluation Form

**Incomplete Rotation Work**

Required rotation work should be completed within the six-week rotation. Unfinished work will result in an Incomplete (I) grade for the rotation until the work is completed. A written contract with a deadline for completion of the work must be set by the preceptor and a written copy
forwarded to the student and the Office of Experiential Education. The preceptor will notify the Office of Experiential Education if the work is not completed by this deadline resulting in review by the Credentialing Committee and if the work is not completed, the grade will be changed to an F.

**Attendance Policy**
All students will adhere to the attendance policies outlined in the College-wide Course Policies and Procedures ([http://pharmacy.tamhsc.edu/current/policies/attendance.html](http://pharmacy.tamhsc.edu/current/policies/attendance.html)) and as described in TAMU Student Rule 7 ([http://students-rules.tamu.edu/rule07](http://students-rules.tamu.edu/rule07)).

**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, and are located in:

- College Station, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit [http://disability.tamu.edu](http://disability.tamu.edu).

- Kingsville, please contact the Disability Resource Center located in Student Health and Wellness or call 361-593-3991. For additional information, visit [http://www.tamuk.edu/drc/index.html](http://www.tamuk.edu/drc/index.html).

**Academic Integrity**
For additional information please visit: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)

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

**Revision Date** November 2015
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):
   Select or Type Department/Program Name College of Pharmacy
   PHAR 821 APPE: Elective II

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

4. Catalog course description (not to exceed 50 words):
   Opportunities to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College; second course of two APPE required electives.

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 program(s) (e.g., B.A. in history)
      Doctor of Pharmacy PharmD
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

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

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

13. Prefix Course # Title (excluding punctuation)

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   Lect. Lab Other SCH CIP and Fund Code Admin. Unit Acad. Year FICE Code
   40.00 6.00 5120010115 2220 16 17 0 0 3 6 3 2

   Approval recommended by:
   [Signature]
   [Date]

   Department Head or Program Chair (Type Name & Sign)

   Chair, College Review Committee
   [Signature]
   [Date]

   Dean of College
   [Signature]
   [Date]

   (if cross-listed course)

   Submitted to Coordinating Board by:
   [Signature]
   [Date]

   Chair, GC or UCC
   [Signature]
   [Date]

   Effective Date
   [Signature]
   [Date]

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
PHAR 821  
APPE Elective II  
FALL SEMESTER 2016

Course Coordinator
Name

Course Instructors (List ALL)
Name and title

Office Hours
List proposed office hours here, by appointment is acceptable.

Office: (location)
List telephone number (can be main number) and e-mail address

Textbooks
Required
(List required texts here)

Recommended
(List recommended texts here)

Course Description
PHAR 821  6 Semester Credit Hours
Opportunities to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College; second course of two APPE required electives.

Learning Objectives
Depending on the elective experience, the student may be able to:

1. Discuss the importance of the elective area to the profession of pharmacy.
2. Discuss the disease states commonly associated with the area of specialty, when appropriate.
3. Discuss the clinical pharmacology, toxicology, and pharmacokinetics of drugs commonly used in the area of specialty, when appropriate. Evaluate therapeutic regimens of patients seen in the specialty area, when appropriate.
4. Interview patients seen in the specialty area when appropriate.
5. Develop a monitoring plan for patients in the specialty area when appropriate.
6. Discuss the psychosocial and economic factors that influence the care of patients in the specialty area, when appropriate.
7. Identify therapeutic problems encountered by patients in the specialty area when appropriate.
8. Discuss individual patients with the preceptor and other health care providers when appropriate.

9. Identify and evaluate primary literature related to the specialty area.

10. Attend lectures, conferences, and presentations related to the specialty area.

11. Make presentations related to the specialty area to the preceptor, other health care providers, patients, and lay people, when appropriate.

12. Participate in the research activities of the preceptor, when appropriate.

13. Write an article pertinent to the specialty area, when appropriate.

14. Analyze published and unpublished data, when appropriate.

15. Attend and participate in the professional meetings and activities of the preceptor.

16. Participate in other professional activities as defined by the preceptor.

17. Define other specific outcomes as directed by the preceptor.

PHAR 821 will be conducted in accordance with the College-Wide Course Policies and Procedures as posted on the College Website http://pharmacy.tamhsc.edu/current/policies/index.html Specifically this refers to the policies and procedures for: Disability Support Services, Grading Policy, Rounding Grades, Communication Devices, Student Communication, Active Student Engagement, Attendance Policy, Academic Integrity, Course and Instructor Evaluations, Audio/Video Recording, Examination Administration, Examination Question Review and Appeal, Chain of Command for Student Problems with the Course.

**Grading Policy**

Students will be evaluated on the basis of clinical knowledge, preparation, professional behaviors and abilities, and oral and written communication skills. At the conclusion of each of the advanced practice rotations, the preceptor will assign the student a grade based on the student’s performance in the areas mentioned above. The preceptor will document in writing any deficiencies identified at the midpoint of the rotation that could result in an unsatisfactory grade to ensure that the student is aware of the deficiencies and has time to correct them before the final evaluation is completed. If the student does not improve to the satisfaction of the preceptor and an unsatisfactory grade is assigned, the student will be required to complete an additional rotation (faculty preceptor, if available) at the next available rotation opportunity. Students who repeat a rotation may have their graduation delayed. Any additional costs associated with this additional rotation (e.g., course registration, housing, transportation) will be the student’s responsibility.

During each experience, the student and preceptor will fill out evaluation tools to monitor the student’s progress through the experience. All evaluations and assessments are completed electronically in E*Value™.

- An **initial** self-assessment must be completed by the student for each APPE. This allows the student to assess his/her skills and competency at the beginning of the rotation and gauge the growth of their knowledge and skills at midpoint and end of the rotation.
- **Mid-rotation** (approximately two to three weeks into the rotation) the student and the preceptor complete the APPE Student Professionalism Assessment and the Student Self-Assessment form. A mid-rotation conference between the preceptor and student must be scheduled and used to share information on the forms and to openly discuss the student’s progress. Unsatisfactory student progress must be reported to the Office of Experiential Education. Midpoint evaluation forms should be retained (Select — Save as a “Work In Progress” in E*Value™) to record the student assessment.

- **Final** evaluation occurs during the final week of the rotation. The student and preceptor will evaluate overall rotation performance. The student must complete a final self-assessment and the preceptor will complete the final assessment of the student. The preceptor uses the same form used at the midpoint evaluation to record the final assessment and comments. The final evaluation must be discussed with the student. Final evaluations should be submitted no later than the Monday following the last day of the rotation.

After the student has electronically submitted the — Preceptor Evaluation & Site Evaluation the student must complete and electronically submit the Preceptor Professionalism Evaluation. The information and comments submitted in this form are considered confidential and a composite of the information is shared with the preceptor ONLY after all rotations have ended. The Preceptor Professionalism Evaluation provides the student with the opportunity to nominate a preceptor for an Outstanding Preceptor or a Mentor award in recognition of their contributions to the student’s experience.

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Letter grades are awarded to the students as follows:

- Values of 4.48 to 5.0 is equivalent to an A
- Values of 3.98 to 4.47 is equivalent to a B
- Values of 3.5 to 3.97 is equivalent to a C
- Values below 3.5 are equivalent to a F

**Grades and Documents**
Students cannot be awarded a rotation grade until the following documents are submitted in E*Value™:

- APPE Evaluation Form by Preceptor *Midterm and Final
- Rotation hours logged by student and verified by preceptor
- Evaluation of Preceptor, Evaluation of Site, and Student Self-Evaluation Form

**Incomplete Rotation Work**
Required rotation work should be completed within the six-week rotation. Unfinished work will result in an Incomplete (I) grade for the rotation until the work is completed. A written contract with a deadline for completion of the work must be set by the preceptor and a written copy
forwarded to the student and the Office of Experiential Education. The preceptor will notify the Office of Experiential Education if the work is not completed by this deadline resulting in review by the Credentialing Committee and if the work is not completed, the grade will be changed to an F.

**Attendance Policy**
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**Americans with Disabilities Act (ADA)**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, and are located in:

- College Station, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

- Kingsville, please contact the Disability Resource Center located in Student Health and Wellness or call 361-593-3991. For additional information, visit http://www.tamuk.edu/drc/index.html.

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

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

**Revision Date** November 2015
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., P.harm.D, D.V.M)

2. Request submitted by (Department or Program Name):
   Select or Type Department/Program Name: College of Pharmacy

3. Course prefix, number and complete title of course:
   PHAR 822 APPE: Elective III

4. Catalog course description (not to exceed 50 words):
   Opportunities for students to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College optional APPE elective.

5. Prerequisite(s):
   Fourth year Pharmacy standing

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/MD)

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

12. 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)
   PHAR | 822 | APPE: ELECTIVE III

   Lect. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | FICE Code
   00 | 6.00 | 5120010115 | 2220 | 16 - 17 | 0 0 3 6 3 2

   Approval recommended by:
   Steven L. Peterson
   Department Head or Program Chair (Type Name & Sign) Date

   Chair, College Review Committee
   Date

   Dean of College
   Date

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

   Associate Director, Curricular Services
   Date

   Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
PHAR 822
APPE Elective III
FALL SEMESTER 2016

Course Coordinator
Name

Course Instructors (List ALL)
Name and title

Office Hours
List proposed office hours here, by appointment is acceptable.

Office: (location)
List telephone number (can be main number) and e-mail address

Textbooks
Required
(List required texts here)
Recommended
(List recommended texts here)

Course Description
PHAR 822  6 Semester Credit Hours
Opportunities for students to build on knowledge and skills acquired through didactic education and introductory pharmacy practice experiences and apply them in direct patient care activities in various pharmacy settings; participation in various activities that enhance the pharmacy profession and development as professional pharmacists; opportunities may include a topic area pertinent to pharmacy practice as approved by the College optional APPE elective.

Learning Objectives
Depending on the elective experience, the student may be able to:
1. Discuss the importance of the elective area to the profession of pharmacy.
2. Discuss the disease states commonly associated with the area of specialty, when appropriate.
3. Discuss the clinical pharmacology, toxicology, and pharmacokinetics of drugs commonly used in the area of specialty, when appropriate. Evaluate therapeutic regimens of patients seen in the specialty area, when appropriate.
4. Interview patients seen in the specialty area when appropriate.
5. Develop a monitoring plan for patients in the specialty area when appropriate.
6. Discuss the psychosocial and economic factors that influence the care of patients in the specialty area, when appropriate.
7. Identify therapeutic problems encountered by patients in the specialty area when appropriate.
8. Discuss individual patients with the preceptor and other health care providers when
appropriate.

9. Identify and evaluate primary literature related to the specialty area.

10. Attend lectures, conferences, and presentations related to the specialty area.

11. Make presentations related to the specialty area to the preceptor, other health care providers, patients, and lay people, when appropriate.

12. Participate in the research activities of the preceptor, when appropriate.

13. Write an article pertinent to the specialty area, when appropriate.

14. Analyze published and unpublished data, when appropriate.

15. Attend and participate in the professional meetings and activities of the preceptor.

16. Participate in other professional activities as defined by the preceptor.

17. Define other specific outcomes as directed by the preceptor.

PHAR 822 will be conducted in accordance with the College-Wide Course Policies and Procedures as posted on the College Website [http://pharmacy.tamhsc.edu/current/policies/index.html](http://pharmacy.tamhsc.edu/current/policies/index.html). Specifically this refers to the policies and procedures for: Disability Support Services, Grading Policy, Rounding Grades, Communication Devices, Student Communication, Active Student Engagement, Attendance Policy, Academic Integrity, Course and Instructor Evaluations, Audio/Video Recording, Examination Administration, Examination Question Review and Appeal, Chain of Command for Student Problems with the Course.

**Grading Policy**

Students will be evaluated on the basis of clinical knowledge, preparation, professional behaviors and abilities, and oral and written communication skills. At the conclusion of each of the advanced practice rotations, the preceptor will assign the student a grade based on the student’s performance in the areas mentioned above. The preceptor will document in writing any deficiencies identified at the midpoint of the rotation that could result in an unsatisfactory grade to ensure that the student is aware of the deficiencies and has time to correct them before the final evaluation is completed. If the student does not improve to the satisfaction of the preceptor and an unsatisfactory grade is assigned, the student will be required to complete an additional rotation (faculty preceptor, if available) at the next available rotation opportunity. Students who repeat a rotation may have their graduation delayed. Any additional costs associated with this additional rotation (e.g., course registration, housing, transportation) will be the student’s responsibility.

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Mid-rotation (approximately two to three weeks into the rotation) the student and the preceptor complete the APPE Student Professionalism Assessment and the Student Self-Assessment form. A mid-rotation conference between the preceptor and student must be scheduled and used to share information on the forms and to openly discuss the student’s progress. Unsatisfactory student progress must be reported to the Office of Experiential Education. Midpoint evaluation forms should be retained (Select — Save as a “Work In Progress” in E*Value™) to record the student assessment.

Final evaluation occurs during the final week of the rotation. The student and preceptor will evaluate overall rotation performance. The student must complete a final self-assessment and the preceptor will complete the final assessment of the student. The preceptor uses the same form used at the midpoint evaluation to record the final assessment and comments. The final evaluation must be discussed with the student. Final evaluations should be submitted no later than the Monday following the last day of the rotation.

After the student has electronically submitted the — Preceptor Evaluation & Site Evaluation the student must complete and electronically submit the Preceptor Professionalism Evaluation. The information and comments submitted in this form are considered confidential and a composite of the information is shared with the preceptor ONLY after all rotations have ended. The Preceptor Professionalism Evaluation provides the student with the opportunity to nominate a preceptor for an Outstanding Preceptor or a Mentor award in recognition of their contributions to the student’s experience.

Students will earn a grade in each experience. The students are evaluated by their preceptors on their performance of competencies using a grading rubric (5 being the highest value and 1 the lowest).

The program allows for a Non-Applicable (N/A) if the student has not been exposed to a specific competency during the rotation. Students are also evaluated on professionalism. A minimum value of 3.5 must be achieved by the student on BOTH the Professionalism section and the Competency section to pass the rotation.

Letter grades are awarded to the students as follows:
- Values of 4.48 to 5.0 is equivalent to an A
- Values of 3.98 to 4.47 is equivalent to a B
- Values of 3.5 to 3.97 is equivalent to a C
- Values below 3.5 are equivalent to a F

Grades and Documents
Students cannot be awarded a rotation grade until the following documents are submitted in E*Value™:
- APPE Evaluation Form by Preceptor *Midterm and Final
- Rotation hours logged by student and verified by preceptor
- Evaluation of Preceptor, Evaluation of Site, and Student Self-Evaluation Form

Incomplete Rotation Work
Required rotation work should be completed within the six-week rotation. Unfinished work will result in an Incomplete (I) grade for the rotation until the work is completed. A written contract with a deadline for completion of the work must be set by the preceptor and a written copy forwarded to the student and the Office of Experiential Education. The preceptor will notify the
Office of Experiential Education if the work is not completed by this deadline resulting in review by the Credentialing Committee and if the work is not completed, the grade will be changed to an F.

**Attendance Policy**
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**Americans with Disabilities Act (ADA)**
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- College Station, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

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

**Revision Date** November 2015
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):
   Select or Type Department/Program Name
   PHAR 873 Pharmacy Professionalism

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

4. Catalog course description (not to exceed 50 words):
   Review and assess the knowledge, skills, attitudes and behaviors required of a professional pharmacist; offered in a practicum format using active learning techniques to understand the integration of content from the didactic curriculum in the development as professionals.

5. Prerequisite(s):
   Third year Pharmacy 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 programs(s) (e.g., B.A. in history)
       Doctor of Pharmacy PharmD
    b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

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

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

13. Prefix Course # Title (excluding punctuation)

   PHAR 873 PHARMACY PROFESSIONALISM

   Lect. Lab Other SCH CIP and Fund Code Admin. Unit Acad. Year FICE Code
   3.00 1.00 1.00 5120010115 2220 16 17 0 0 3 6 3 2

   Approval recommended by:
   Steven L. Peterson

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

   Chair, College Review Committee
   Date

   Dean of College
   Date

   Department Head or Program Chair (Type Name & Sign)
   (if cross-listed course)
   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
PHAR 873
Pharmacy Professionalism
SPRING SEMESTER 2017

Course Coordinator Course Meeting Time
Name

Course Instructors (List ALL) Office Hours
Name and title List proposed office hours here, by appointment is acceptable.
Office: (location )
List telephone number (can be main number) and e-mail address

Textbooks:
Required
(List required texts here)

Recommended
(List recommended texts here)

Course Description
PHAR 873 1 Semester Credit Hour
This course will review and assess the knowledge, skills, attitudes and behaviors required of a professional pharmacist. This course will be offered in a practicum format using active learning techniques as students work together to understand the integration of content from the didactic curriculum in their development as professionals. The grade in the course in large part will be based on a comprehensive curricular exam. Attendance will be required.

Learning Objectives

1. Students will examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.
2. Students will demonstrate responsibility for creating and achieving shared goals as evidence of leadership development.
3. Students will engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.
4. Student will exhibit behaviors and values that are consistent with the trust given to the profession by patients, healthcare providers and society.

PHAR 873 will be conducted in accordance with the College-Wide Course Policies and Procedures as posted on the College Website http://pharmacy.tamhsc.edu/current/policies/index.html
Specifically this refers to the policies and procedures for: Disability Support Services, Grading Policy, Rounding Grades, Communication Devices, Student Communication, Active Student Engagement, Attendance Policy, Academic Integrity, Course and Instructor Evaluations, Audio/Video Recording, Examination Administration, Examination Question Review and Appeal, Chain of Command for Student Problems with the Course.
Grading Policy
A student’s grade in every course in the curriculum of the Texas A&M Health Science Center College of Pharmacy is based upon performance and/or participation in classes or clinical rotations, laboratory work, examinations, attendance, professional attributes and attitudes, personal observations, and other activities applicable to that course. The standing of a student in any course is determined by the faculty. The proportionate weight of each factor is set by the course instructor and the department administering the course.

The right and responsibility to evaluate student cognitive and noncognitive abilities rests with the faculty. A grade of A, B, C or, in certain designated courses, S, must be attained in all required courses of the pharmacy curriculum in order to satisfy the requirements of the Doctor of Pharmacy degree. The College’s grading system is listed below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent 90 - 100</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>Good 80 - 89</td>
<td>100%</td>
</tr>
<tr>
<td>C</td>
<td>Average 70 - 79</td>
<td>100%</td>
</tr>
<tr>
<td>D</td>
<td>Poor 60 - 69 (deemed unsatisfactory performance in the College)</td>
<td>100%</td>
</tr>
<tr>
<td>F</td>
<td>Failure below 60</td>
<td>100%</td>
</tr>
</tbody>
</table>

Grades will be assigned according to the following guidelines:
- Midterm Examination: 10%
- IPE Activity: 10%
- OSCE I: 15%
- OSCE II: 15%
- Final Exam: 50%
- TOTAL: 100%

COURSE CALENDAR
TBD

Attendance Policy
All students will adhere to the attendance policies outlined in the College-wide Course Policies and Procedures (http://pharmacy.tamhsc.edu/current/policies/attendance.html) and as described in TAMU Student Rule 7 (http://students-rules.tamu.edu/rule07).

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**Revision Date** October 2015

The Course Coordinator reserves the right to modify the course calendar as needed.
CHANGE IN COURSE
Texas A&M University
Departmental Request for a Change in Course
Undergraduate • Graduate • Professional
Submit original form and attachments

Form Instructions:
1. Course request type:
   - Undergraduate  [ ]
   - Graduate  [ ]
   - First Professional (DDS, MD, JD, PharmD, DVM)  [ ]
2. Request submitted by (Department or Program Name):
   - College of Pharmacy
3. Course prefix, number and complete title of course:
   - PHAR 756 Pharmacy Management

Attach a brief supporting statement for changes made to items 4a thru 4d, and 10 below.

4. Change requested
   a. Prerequisite(s):
      - From: ____________________________  To: ____________________________
   b. Withdrawal (reason):
   c. Cross-list with:
      Cross-listed courses require the signatures of both department heads.
   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.
5. Is this an existing core curriculum course?  [ ] Yes  [ ] No
6. If grade type is changing for existing course, indicate the new grade type:
   - Grade  [ ]
   - S/U  [ ]
   - P/F (CLMD)  [ ]
7. If this course will be stacked, please indicate the course number of the stacked course:

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

8. Complete current course title and current catalog course description:
   - PHAR 756 Pharmacy Management
   This course introduces the role of management activities within the health care system. It presents skills for analyzing problems involving time, equipment, dollar and human resources in a health care environment. Emphasis is placed on developing problem solving abilities within a framework of pharmacy management.

9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):
   - PHAR 757 Pharmacy Management and Pharmacoeconomics
   Introduction to leadership and management activities within the health care system; analyzing problems involving time, equipment, funding, and human resources in a health care environment; emphasis on the role of the leader and developing problem solving abilities within a framework of pharmacy management; four pharmacoeconomic models, decision analysis methods, and measuring humanistic, clinical, and economic outcomes; emphasis is placed on skills.

10. Complete current course title and current catalog course description:

   PHAR 756 Pharmacy Management

11. a. As currently in course inventory:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (excluding punctuation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR</td>
<td>756</td>
<td>PHARMACY MANAGEMENT</td>
</tr>
<tr>
<td>Lect.</td>
<td>Lab</td>
<td>Other</td>
</tr>
<tr>
<td>2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. Change to:

<table>
<thead>
<tr>
<th>Prefix</th>
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</thead>
<tbody>
<tr>
<td>PHAR</td>
<td>757</td>
<td>PHARMACY MGMT &amp; PHARMACOECON</td>
</tr>
<tr>
<td>Lect.</td>
<td>Lab</td>
<td>Other</td>
</tr>
<tr>
<td>3.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approval recommended by:

Steven L. Peterson
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 – 08/14
PHAR 757  
Pharmacy Management and Pharmacoeconomics  
SPRING SEMESTER 2017

Course Coordinator  
Charles Douglas

Course Meeting Time  
TBA

Course Instructors Office Hours  
Charles Douglas, PhD, MBA  
Kingsville, COP Room 208  
(361) 221-0738  
charles.douglas@pharmacy.tamhsc.edu  
By Appointment

Lixian Zhong, PhD  
College Station  
(979) 436-0193  
zhong@pharmacy.tamhsc.edu  
By Appointment

Textbooks  
Required:  
2. Essentials of Pharmacoeconomics, (2nd Ed.) Karen Rascati

Recommended:  
None

Course Description – PHAR 757  
3 semester credit hours  
Introduction to leadership and management activities within the health care system; analyzing problems involving time, equipment, funding, and human resources in a health care environment; emphasis on the role of the leader and developing problem solving abilities within a framework of pharmacy management; four pharmacoeconomic models, decision analysis methods, and measuring humanistic, clinical, and economic outcomes; emphasis is placed on skills to evaluate pharmacoeconomic literature.

Learning Objectives  
1. Communicate an understanding of the basic models used in pharmacoeconomics and their applications in pharmaceutical care. The basic models are Cost-Minimization Analysis (CMA),  
2. Cost-Effectiveness Analysis (CEA), Cost-Utility Analysis (CUA) and Cost-Benefit Analysis  
3. (CBA),  
2. Be able to select, and defend the selection of the most appropriate pharmacoeconomic model for a specific research/administrative question.
3. Prepare a critical review of a pharmacoeconomic research article and case studies using the student’s knowledge of principles of clinical research, statistical analysis, pharmacoepidemiology and other research tools.
4. Demonstrate knowledge of decision analysis by constructing a decision tree to model a disease process including clinical and economic variables.
5. Apply basic concepts of Markov simulation techniques in pharmacoeconomic analysis and disease state modeling (decision tree).
6. Understand the broader policy issues of employing pharmacoeconomic and QoL analysis in drug product coverage and reimbursement decisions in public and private prescription drug programs.
7. Describe the three fundamental models of strategic business positions.
8. Demonstrate knowledge of leadership characteristics and elements of power by describing appropriate application.
9. Be able to select, and defend the selection of the most appropriate method of communication, conflict management, and negotiation techniques by describing appropriate application.
10. Communicate an understanding how legal, workplace and performance factors impact on the practice of human resources in pharmacy.
11. Describe the financial impact of reimbursement codes and quality performance measurement of a pharmacy.
12. Communicate an understanding of the impact of informatics and automation on pharmacy operations.
13. Demonstrate knowledge of inventory management by describing cost factors in the purchase and storage of inventory.
14. Describe concepts of financial management in the drug supply chain and in retail pharmacy.
15. Describe the financial impact of quality improvement programs and customer satisfaction in pharmacy.
16. Describe the application of Marketing’s 4Ps in Pharmacy.
17. Demonstrate knowledge of risk management by describing costs and consequences of different methods of risk mitigation.
18. Understand the broader policy issues of employing developing your personal brand on your career.

PHAR 757 will be conducted in accordance with the College-Wide Course Policies and Procedures as posted on the College Website http://pharmacy.tamhsc.edu/current/policies/index.html Specifically this refers to the policies and procedures for: Disability Support Services, Grading Policy, Rounding Grades, Communication Devices, Student Communication, Active Student Engagement, Attendance Policy, Academic Integrity, Course and Instructor Evaluations, Audio/Video Recording, Examination Administration, Examination Question Review and Appeal, Chain of Command for Student Problems with the Course.

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<td>D</td>
<td>Poor</td>
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<td>F</td>
<td>Failure below 60</td>
<td></td>
</tr>
</tbody>
</table>

Grades will be assigned according to the following guidelines:

- Weekly Quizzes: 35%
- Midterm Exam: 30%
- Key Assessment: 5%
- Final Exam: 30%
- TOTAL: 100%

**Attendance Policy**
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COURSE CALENDAR
TBD

Revision Date October 2015

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