Curriculum Changes
Date: October 14, 2015

To: Mark Zoran
Chair
Graduate Council

Through: Ryan Crocker
Dean
Bush School of Government and Public Service

Arnold Vedlitz
Executive Associate Dean
Bush School of Government and Public Service

From: Leonard Bright
Graduate Instruction Committee Chair
Assistant Dean of Graduate Education
Bush School of Government and Public Service

Jeryl Mumpower
Department Head
Department of Public Service and Administration

Subject: Revisions the Executive Masters of Public Service and Administration (EMPSA) Degree

The Bush School's Department of Public Service and Administration seeks to revise its recently approved EMPSA degree. The changes that are proposed better align the core and track requirements of the EMPSA with the in resident MPSA degree. The Bush School's Graduate Instruction Committee have issued their support of this action.
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type: □ Undergraduate  □ Graduate  □ First Professional (e.g., DPM, JD, MD, etc.)

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

3. Request submitted by (Department or Program Name): Department of Public Service and Administration

4. Program Designation and Name (e.g., B.A. in History, Minor in History, Certificate in European Union): Executive Master of Public Service and Administration (EMPSA)

5. Brief description of change:
We are requesting the following curricular changes of adding PSAA 630 Program Evaluation in Public and Nonprofit Organizations as a core required course for all EMPSA students. In addition, to the Nonprofit Management track, we are adding an additional required track course of PSAA 632, Fiscal Management for Nonprofits. To the Homeland Security Track, we are adding the required course of PSAA 623 Budgeting in Public Service and PSAA 634 Public Management, while removing PSAA 605 Homeland Security Policies, Strategies and Operations as a required Homeland Security in Nonprofit Management Track course. Finally, we are adding an additional Public Management track.

6. Rationale for change:
These modifications and course additions are needed in order to provide students with the knowledge and competencies that are expected of an graduate of a Master of Public Service and Administration program. Program evaluation, budgeting, and public management are critical knowledge areas that each Master of Public Service and Administration graduate must have in order to be successful in public service. Also, we seek to more closely align our executive online master's of public service & administration with the curriculum of our residential master's of public service and administration.

The additional offering of the Public Management track aligns with the current Public Management track offered by the residential MPSA program. Furthermore, public management has been identified as a high need area in which employers request more graduates who have this area of expertise.

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. □ No □ 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-9A92-4F11-2756AD3BFFFFD60

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:

[Signatures and dates]

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

<table>
<thead>
<tr>
<th>TRACKS</th>
<th>Full-time Residential Program</th>
<th>Executive Program</th>
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*current*
## MPSA Degree Overview

### Full-time Residential Program

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### Track Core Courses (FT)

| Tracks |  |
|--------|  |
| 623 Budgeting | 9 | 9 | 9 |
| 634 Public Management | 10 | 10 | 10 |
| 615 Public Policy Analysis | 9 |  |
| 622 Public Finance | 10 |  |
| 631 Fiscal Management of NP | 9 | 9 |  |
| 643 Foundations of the Non-Profit Sector |  |
| 644 Non Profit Management | 10 | 10 |  |
| 605 Homeland Security Policy |  |

### Track Electives

| Electives |  |
|-----------|  |
| Elective 1 | 11 | 11 | 11 | 11 | 11 | 11 |
| Elective 2 | 12 | 12 | 12 | 12 | 12 | 12 |
| Elective 3 | 13 | 13 | 13 |  |

### Concentration Electives

| Electives |  |
|-----------|  |
| Elective 1 | 13 | 13 | 13 |
| Elective 2 | 14 | 14 | 14 |
| Elective 3 | 15 | 15 | 15 |
| Elective 4 | 16 | 16 | 16 |
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):
   College of Education and Human Development

   Program Designation and Name
   (e.g., B.A. in History, Minor in History, Certificate in European Union):
   Education and Social Sciences Advanced Research Methods Certificate

4. Brief description of change:
   Remove the three EDCI 689 courses currently listed.
   Add the following courses: EPSY 637, EPSY 650, EPSY 652, EPSY 653, EPSY 654, EPSY 655, EPSY 656, EDCI 628, EHRD 690 (Statistics III), and HLTH 689.

5. Rationale for change:
   The previous courses offerings were largely dates, included many 689 courses, and did not include many of the advanced statistics and research methods courses the college currently offers.

   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?
      http://www.thecb.state.tx.us/index.cfm?objectid=A0F9F7FA-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:

George Cunningham  10/4/15 George Cunningham  10/4/15
Department Head or Program Chair (Type, Name & Sign) Date Dean of College Date

George Cunningham  10/4/15
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@temu.edu.
Curricular Services – 04/14
MEMORANDUM

TO: Graduate Council

FROM: George B. Cunningham, PhD
Associate Dean, College of Education and Human Development

RE: Proposal for Change in Curriculum to the Education and Social Sciences Advanced Research Methods (ARM) Certificate

Attached, please find the paperwork for revising the courses required for the Educational and Social Sciences Advanced Research Methods (ARM) certificate. The Graduate Instruction Council in the college voted to:

1. Remove several courses from the list, all of which were listed as 689 at the time the certificate was approved
   a. EDCI 689: Special topics in... (Advanced Research Methods in EDCI)
   b. EDCI 689: Special topics in... (Advanced Research Methods in Qualitative Research)
   c. EDCI 689: Special topics in... (Models and Methods of Curriculum Evaluation)

2. Add several courses from which students can choose in order to satisfy the certificate requirements. All of the courses focus on advanced analytical or methodological concepts:
   a. EPSY 637: Qualitative Grounded Theory Methodologies
   b. EPSY 650: Multiple Regression and other Linear Models in Education Research
   c. EPSY 652: Theory of hierarchical Linear Models
   d. EPSY 653: Advanced Structural Equation Modeling
   e. EPSY 654: Longitudinal Data Analysis
   f. EPSY 655: Item Response Theory
   g. HLTH 689: Special topics in... (System Thinking and Complexity in Population Health)
   h. EDCI 628: Analyzing and Reporting Field Based Research
   i. EDCI 688: Research Methods in EDCI III
   j. EHRD 690: Theory of Educational Human Resource Development Research (Part III)

We appreciate your consideration. Please contact us should you require additional information.
Education and Social Sciences Advanced Research Methods (ARM) - Certificate

Offered by the College of Education and Human Development (CEHD), a Graduate Certificate in Education and Social Sciences Advanced Research Methods allows students in the College of Education and Human Development to add to their degree’s minimum requirements for training in research methodology. The Certificate testifies to a student’s successful mastery of advanced competencies in education and social sciences research methods, with emphasis on quantitative or qualitative approaches. The Certificate requires 12 hours of advanced research methods courses, identified as such by the CEHD’s Research Certificate Committee. Enrollment in these advanced courses will require the completion of established prerequisites (designated in the Texas A&M University Graduate and Professional Catalog) and/or the approval of the course instructor and the student’s dissertation committee chair/faculty advisory. As part of the certificate completion requirements, students will provide evidence of submission of a manuscript for publication as the main author, or as a co-author. As a first step in applying for the Certificate, graduate students should contact their dissertation or program Chair(s).

Program Requirements

Certificate Requirements

Select 4 advanced Quantitative or Qualitative (or mixed methods) Research Methods Courses

Required for Completion: Evidence of submission of an article, for publication in a peer-reviewed journal, as main author or co-author

Educational Administration & Human Resource Development

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>EDAD 623</td>
<td>Advanced Fieldwork Methods</td>
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<td>EHRD 656</td>
<td>Narrative Analysis</td>
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<td>EHRD 657</td>
<td>Life History Research</td>
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Educational Psychology

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>EPSY 625</td>
<td>Advanced Psychometric Theory</td>
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<td>EPSY 642</td>
<td>Meta-Analysis of Behavioral Research</td>
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<td>EPSY 643</td>
<td>Applied Multivariate Methods</td>
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<tr>
<td>EPSY 651</td>
<td>Theory of Structural Equation Modeling</td>
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Current Research Methods Requirements by Departmental Programs for Ph.D. Degrees

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<th>Department/Program</th>
<th>Minimum Research Methods Requirement In credit hours</th>
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<td>Teaching, Learning and Culture</td>
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<tr>
<td>Educational Administration and Human Resource Development</td>
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<td>Educational Psychology</td>
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<td>Health and Kinesiology</td>
<td>9-18 hours</td>
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CEHD Courses Approved for Certificate

Teaching, Learning and Culture

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<td>EDCI 627</td>
<td>Teaching and Learning Data Analysis and Uncertainty Concepts</td>
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<tr>
<td>EDCI 699</td>
<td>Special Topics In... (Advanced Research Methods in EDCI)</td>
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<td>EDCI 699</td>
<td>Special Topics In... (Advanced Research Methods in Qualitative Res)</td>
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<tr>
<td>EDCI 689</td>
<td>Special Topics in... (Models and Methods of Curriculum Evaluation)</td>
<td>3</td>
</tr>
<tr>
<td>EDCI 661</td>
<td>Mixed Methods Research in Curriculum and Instruction</td>
<td>3</td>
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</table>
Education and Social Sciences Advanced Research Methods Certificate

Deleted Courses:
EDCI 689: Special topics in... (Advanced Research Methods in EDCI)
EDCI 689: Special topics in... (Advanced Research Methods in Qualitative Research)
EDCI 689: Special topics in... (Models and Methods of Curriculum Evaluation)

New Courses:
EPSY 637: Qualitative Grounded Theory Methodologies
EPSY 650: Multiple Regression and other Linear Models in Education Research
EPSY 652: Theory of hierarchical Linear Models
EPSY 653: Advanced Structural Equation Modeling
EPSY 654: Longitudinal Data Analysis
EPSY 655: Item Response Theory
HLTH 689: Special topics in... (System Thinking and Complexity in Population Health)
EDCI 628: Analyzing and Reporting Field Based Research
EDCI 688: Research Methods in EDCI III
EHRD 690: Theory of Educational Human Resource Development Research (Part III)
Education and Social Sciences Advanced Research Methods (ARM) – Certificate

Overview
Offered by the College of Education and Human Development (CEHD), a Graduate Certificate in Education and Social Sciences Advanced Research Methods allows students in the College of Education and Human Development to add to their degree's minimum requirements for training in research methodology. The Certificate testifies to a student’s successful mastery of advanced competencies in education and social sciences research methods, with emphasis on quantitative or qualitative approaches. The Certificate requires 12 hours of advanced research methods courses, identified as such by the CEHD’s Research Certificate Committee. Enrollment in these advanced courses will require the completion of established prerequisites (designated in the Texas A&M University Graduate and Professional Catalog) and/or the approval of the course instructor and the student’s dissertation committee chair/faculty advisory. As part of the certificate completion requirements, students will provide evidence of submission of a manuscript for publication as the main author, or as a co-author. As a first step in applying for the Certificate, graduate students should contact their dissertation or program Chair(s).

Certificate Requirements
Select 4 advanced Quantitative or Qualitative (or mixed methods) Research Methods Courses (12 hours)
Required for Completion: Evidence of submission of an article, for publication in a peer-reviewed journal, as main author or co-author.

Current Research Methods Requirements by Departmental Programs for PhD Degrees

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CREHD Courses Approved for Certificate

Educational Administration and Human Resource Development
EDAD 623 Advanced Fieldwork Methods 3
EHRD 656 Narrative Analysis 3
EHRD 657 Life History Research 3
EHRD 690 Theory of Educational Human Resource Development Research (Part III) 3
### Educational Psychology

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### Health and Kinesiology

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<td>HLTH 689</td>
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### Teaching, Learning and Culture

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<td>Mixed Methods Research in Curriculum and Instruction</td>
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<tr>
<td>EDCI 668</td>
<td>Research Methods in EDCI III</td>
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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 the Joint degree program between Oceanography and Atmospheric Sciences Meteorology program

I have attached a revision to the 3+2 program for METR and the non-thesis MS in Oceanography. It has been modified to swap out the non-thesis MS in Oceanography with the newly approved Master of Ocean Science and Technology. This is simply a swap in the designation non thesis Master’s degree.

The degree plan remains the same with one correction. In footnote #4, “GEOS 470/OCNG 657” needs to be removed from the list where both courses cannot count for credit. These courses are sufficiently different, and both will count for credit.

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 MS 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 (114 undergraduate credit hours plus 6 dual credit graduate courses) and non-thesis MS 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 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

First Year

<table>
<thead>
<tr>
<th>Semester Credit Hours</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMO 201 Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 101 Fundamentals of Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 111 and Fundamentals of Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>MATH 171 Analytic Geometry and Calculus</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 151</td>
<td></td>
</tr>
<tr>
<td>ENGL 104 Composition and Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 101 Introduction to the Geosciences</td>
<td>1</td>
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Spring

<table>
<thead>
<tr>
<th>Term Semester Credit Hours</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMO 203 Weather Forecasting Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 102 Fundamentals of Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>&amp; CHEM 112 and Fundamentals of Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td>MATH 172 Calculus</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 152</td>
<td></td>
</tr>
<tr>
<td>PHYS 218 Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>American history elective</td>
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</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Term Semester Credit Hours</th>
<th>16</th>
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<tbody>
<tr>
<td>ATMO 251 Weather Observation and Analysis 1</td>
<td>3</td>
</tr>
<tr>
<td>ATMO 363 Introduction to Atmospheric Chemistry and Air Pollution 1</td>
<td>3</td>
</tr>
<tr>
<td>MATH 251 Engineering Mathematics III 1</td>
<td>3</td>
</tr>
<tr>
<td>ATMO 321 Computer Applications in the Atmospheric Sciences 1</td>
<td>3</td>
</tr>
<tr>
<td>POLS 206 American National Government 1</td>
<td>3</td>
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<tr>
<td>General elective 1,8,9</td>
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Spring

<table>
<thead>
<tr>
<th>Term Semester Credit Hours</th>
<th>18</th>
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<tbody>
<tr>
<td>ATMO 324 Physical and Regional Climatology 1</td>
<td>3</td>
</tr>
<tr>
<td>MATH 308 Differential Equations 1</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 208 Electricity and Optics 1</td>
<td>4</td>
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<tr>
<td>American history elective 1</td>
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<tr>
<td>Social and behavioral sciences 1</td>
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Third Year

<table>
<thead>
<tr>
<th>Term Semester Credit Hours</th>
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<tbody>
<tr>
<td>ATMO 335 Atmospheric Thermodynamics 1</td>
<td>3</td>
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<tr>
<td>ATMO 336 Atmospheric Dynamics 1</td>
<td>4</td>
</tr>
<tr>
<td>STAT 211 Principles of Statistics I 1</td>
<td>3</td>
</tr>
<tr>
<td>POLS 207 State and Local Government 1</td>
<td>3</td>
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<tr>
<td>General Elective 1,8,9</td>
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Spring

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<tbody>
<tr>
<td>ATMO 435 Synoptic-Dynamic Meteorology 1</td>
<td>3</td>
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<tr>
<td>ATMO or technical electives 2</td>
<td>6</td>
</tr>
<tr>
<td>Communication elective 1</td>
<td>3</td>
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</tbody>
</table>
**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 Geology: Only one course from GEOL 101, 103 and 104 may be used for this degree.

<table>
<thead>
<tr>
<th>Program :</th>
<th>BS METR - GOC program</th>
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<tbody>
<tr>
<td>Campus :</td>
<td>College Station</td>
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<tr>
<td>College :</td>
<td>Geosciences</td>
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<tr>
<td>Degree :</td>
<td>Bachelor of Science</td>
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<td>Level :</td>
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<td>Majors :</td>
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<td>Fall 2015 - College Station</td>
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<td>13</td>
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<td>Results as of :</td>
<td>Jul 22, 2015</td>
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<td>Minors :</td>
<td>Concentrations :</td>
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This is NOT an official evaluation.

**Met Credits**

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**Courses**

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</table>

**Area : Major Coursework (48.000 credits) - Not Met**

| Met | Condition Rule Subject Attribute Low High Required | Required | Term Subject Course Title Attribute Credits Courses |
|-----|----------------------------------------|----------|----------------------------------------|----------------------------------------|
| No  | A. ATMO 201                             | ATMO 203  |                                      |                                      |
| No  | B. ATMO 203                             | ATMO 251  |                                      |                                      |
| No  | C. ATMO 203                             | ATMO 251  |                                      |                                      |
| No  | D. ATMO 204                             | ATMO 251  |                                      |                                      |
| No  | E. ATMO 204                             | ATMO 251  |                                      |                                      |
| No  | F. ATMO 251                             | ATMO 256  |                                      |                                      |
| No  | G. ATMO 256                             | ATMO 256  |                                      |                                      |
| No  | H. ATMO 256                             | ATMO 435  |                                      |                                      |
| No  | I. ATMO 446                             | ATMO 446  |                                      |                                      |
| No  | J. ATMO Elect 3hrs                     | ATMO Elect 3hrs |                                      |                                      |
| No  | K. METR Additional Rqmt 19hrs           | ATMO 441, 443 |                                      |                                      |

Select from ATMO 441, 443.

Select from ATMO 201, 300-499 (except ATMO 221); GEOG 400-499; GEOS 400-499; MATH 311, 400-499; CHEM 202, 300; CHEM 227, 237.
Detail Requirements

2. 4 hours required. Take CHEM 101 and 111.

No AND D. Chemistry II Rqmt 4hrs

Select from the following:

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

Total Credits and GPA 0.000

unofficial evaluation

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

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

No A. Lang, Phil, Culture Rqmt 3hrs

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

Total Credits and GPA 0.000

unofficial evaluation

Area: Creative Arts (3.000 credits) - Not Met

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

No A. Creative Arts Requirement

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

Total Credits and GPA 0.000

unofficial evaluation

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

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

No A. Social Science Rqmt 3hrs

Select from courses with the Social and Behavioral Science attribute [KSOC].

Total Credits and GPA 0.000

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.

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

No A. American History Rqmt 6hrs

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
<table>
<thead>
<tr>
<th>No</th>
<th>A.</th>
<th>Foreign Language Rqmt</th>
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<td></td>
<td>Complete one of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Two years of the same foreign language in High School.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. A two semester sequence of the same foreign language for University credit.</td>
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<table>
<thead>
<tr>
<th>Area:</th>
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<tbody>
<tr>
<td>Description:</td>
<td>A minimum of 36 hours of 300-400 level coursework must be completed at Texas A&amp;M University. 12 hours must be in the major field.</td>
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<table>
<thead>
<tr>
<th>Met</th>
<th>Condition</th>
<th>Rule</th>
<th>Subject</th>
<th>Attribute</th>
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<th>High</th>
<th>Required</th>
<th>Required Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>C</th>
<th>Credits</th>
<th>Courses</th>
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<tbody>
<tr>
<td>No</td>
<td>AND</td>
<td>B.</td>
<td>Residence</td>
<td>300-499</td>
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</table>

<table>
<thead>
<tr>
<th>Area:</th>
<th>GPR-Major - Not Met</th>
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</thead>
</table>

<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</th>
<th>Required Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>C</th>
<th>Credits</th>
<th>Courses</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Major GPR</td>
<td>25+hrs</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Select from ATMO 100-499; GEOS 100-499.</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Total Credits and GPA 0.000

unofficial evaluation

Back to Display Options
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, College of Geosciences

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

I have attached a revision to the 3+2 program for ENGS and the non M.S. in Oceanography. It has been modified to swap out the non-thesis MS in Oceanography with the newly approved Master of Ocean Science and Technology. This is simply a swap in the designation non thesis Master’s degree.

The degree plan remains the same with one correction. In footnote #4, “GEOS 470/OCNG 657” needs to be removed from the list where both courses cannot count for credit. These courses are sufficiently different, and both will count for credit.

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

O&M Building, Room 1204
3148 TAMU
College Station, TX 77843-3146
Tel. 979.845.7211 Fax 979.845.6331
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 150 hours of coursework. The concurrent degree program will enable these motivated students to coordinate the required B.S. coursework (114 undergraduate credit hours plus 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 to 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

Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS 105</td>
<td>Introduction to Environmental Geoscience</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 111</td>
<td>Introductory Biology I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 151</td>
<td>Engineering Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 104</td>
<td>Composition and Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>GEOS 101</td>
<td>Introduction to the Geosciences</td>
<td>1</td>
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</table>

| Term Semester Credit Hours | 15 |

Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>POLS 206</td>
<td>American National Government</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 112</td>
<td>Introductory Biology II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 152</td>
<td>Engineering Mathematics II</td>
<td>4</td>
</tr>
<tr>
<td>American history</td>
<td>Language, philosophy and culture</td>
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</tr>
</tbody>
</table>

| Term Semester Credit Hours | 17 |

Second Year

Fall

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATMO 201</td>
<td>Weather and Climate</td>
<td>4</td>
</tr>
<tr>
<td>&amp; ATMO 202</td>
<td>and Weather and Climate Laboratory</td>
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<tr>
<td>GEOG 203</td>
<td>Planet Earth</td>
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<tr>
<td>&amp; GEOG 213</td>
<td>and Planet Earth Lab</td>
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<tr>
<td>GEOL 101</td>
<td>Principles of Geology</td>
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<tr>
<td>OCNG 251</td>
<td>Oceanography</td>
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<td>&amp; OCNG 252</td>
<td>and Oceanography Laboratory</td>
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<tr>
<td>CHEM 101</td>
<td>Fundamentals of Chemistry I</td>
<td>4</td>
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<tr>
<td>&amp; CHEM 111</td>
<td>and Fundamentals of Chemistry Laboratory</td>
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<tr>
<td>GEOG 201</td>
<td>Introduction to Human Geography</td>
<td>3</td>
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<tr>
<td>American history</td>
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<tr>
<td>Environmental Policy Elective</td>
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Select one of the following:

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<tr>
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<th>Title</th>
<th>Semester Credit Hours</th>
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<tbody>
<tr>
<td>AGEC 350</td>
<td>Environmental and Natural Resource Economics</td>
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<tr>
<td>BESC 367</td>
<td>U.S. Environmental Regulations</td>
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<tr>
<td>ECON 202</td>
<td>Principles of Economics</td>
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<td>ECON 323</td>
<td>Microeconomic Theory</td>
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<td>Economic Geography</td>
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<td>GEOG 306</td>
<td>Introduction to Urban Geography</td>
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<td>GEOG 309</td>
<td>Geography of Energy</td>
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<td>GEOG 401</td>
<td>Political Geography</td>
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<td>GEOG 406</td>
<td>Geographic Perspectives on Contemporary Urban Issues</td>
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<td>GEOG 430</td>
<td>Environmental Justice</td>
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<td>PHIL 314</td>
<td>Environmental Ethics</td>
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<td>POLS 347</td>
<td>Politics of Energy and the Environment</td>
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<td>RENR 470</td>
<td>Environmental Impact Assessment</td>
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<td>SOCI 328</td>
<td>Environmental Sociology</td>
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<tr>
<td>URPN 202</td>
<td>Building Better Cities</td>
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<tr>
<td>URPN 380</td>
<td>Issues in Environmental Quality</td>
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<td>URPN 371</td>
<td>Environmental Health Planning and Policy</td>
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<td>URPN 460</td>
<td>Sustainable Communities</td>
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</table>

| Term Semester Credit Hours | 17 |

Spring

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
</table>

| Term Semester Credit Hours | 4 |


Environmental Geosciences - 5-Year Bachelor of Science/Master of Science in Oceanography

GEOG 450 Field Geography
GEOG 462/ESSM 462 Advanced GIS Analysis for Natural Resources Management
GEOG 467 Dynamic Modeling of Earth and Environmental Systems
GEOG 475 Advanced Topics in GIS (Geographic Information Systems)
GEOG 476 GIS Practicum
GEOL 309 Introduction to Geological Field Methods
GEOL 330 Geologic Field Trips
GEOL 352 GNSS in the Geosciences
GEOP 413 Near-surface Geophysics
OCNG 451 Mathematical Modeling of Ocean Climate

Term Semester Credit Hours: 15
Total Semester Credit Hours: 126

Fifth Year

Fall

Semester Credit Hours
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
Capstone Experience 3

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 also 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 350, OCNG 451, 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 courses and associated labs 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; GEOG 470/OCNG 670).

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

Coastal and Marine Environments Theme List

GEOG 370/ Coastal Processes 3
MARS 370
OCNG 401 Interdisciplinary Oceanography 3

Select the remaining courses from the following: 4

GEOG 331 Geomorphology 3
GEOG 360 Natural Hazards 3
GEOL 306 Sedimentology and Stratigraphy 4
GEOL 440 Engineering Geology 3
GEOS 444 The Science and Politics of Global Climate Change 3
GEOS 484 Internship 0-6
OCNG 350 Marine Pollution 3
OCNG 410 Introduction to Physical Oceanography 3
OCNG 420 Introduction to Biological Oceanography 3
OCNG 425 Microbial Oceanography 3
OCNG 430 Introduction to Geological Oceanography 3
OCNG 440 Introduction to Chemical Oceanography 3
WFSC 418 Ecology of the Coastal Zone 3
WFSC 425 Marine Fisheries 3
WFSC 428 Wetland Ecosystem Management 4

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.
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

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

Request change for: ☑ Degree Program ☐ Minor ☐ Certificate

Request submitted by (Department or Program Name): Health and Kinesiology

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

Brief description of change:
ATTR 654 Clinical Education IV (2 credits) will be deleted and replaced in the curriculum plan be ATTR 673 Manual Therapy in Athletic Training (2 credits).

Rationale for change:
ATTR 654 Clinical Education IV was a clinical experience class offered during the summer to fulfill accreditation requirements for practical experience during the summer. These requirements no longer exist so the program wants to use the 2 credit hours to strengthen the program in an area of weakness, manual therapy. Course objectives that were covered in the lecture portion of ATTR 654 will be divided as follows: Psychosocial intervention and referral will be covered in ATTR 670 General Medical Conditions and Therapeutic Medication. Cultural diversity is already embedded throughout the curriculum but specifics of cultural sensitivity and awareness will be covered in ATTR 671 Organization and Administration to support the communication module. Special populations in injury diversity was already embedded throughout the curriculum in various courses (ATTR 662 Clin Diag LE, ATTR 664 Clin Diag UE, ATTR 666 Phys Rehab, ATTR 670) and will continue to be taught in these courses.

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-9A92-4F11-2756AD3BBFF01D60

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

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

Approval recommended by:

Richard Kreider
Department Head or Program Chair (Type Name & Sign) Date 10/16/15

George Cunningham
Dean of College Date 11-5-15

Mark Zoran
Chair, GC or UCC Date

Chair, College Review Committee Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandl-a-williams@tamu.edu.
Curricular Services – 04/14
Texas A&M University  
Department of Health and Kinesiology  
Master of Science in Athletic Training  
Curriculum Plan  

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Research Core (7 hours):</strong></td>
<td></td>
</tr>
<tr>
<td>KINE 601</td>
<td>Reading Research (Research Methods)</td>
</tr>
<tr>
<td>KINE 690S</td>
<td>Theory of Kinesiology (Statistics)</td>
</tr>
<tr>
<td>KINE 681</td>
<td>Seminar</td>
</tr>
<tr>
<td><strong>Required Athletic Training Core (53 hours):</strong></td>
<td></td>
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<tr>
<td><em>ATTR courses are new course proposals</em></td>
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<tr>
<td>ATTR 651</td>
<td>Clinical Education I</td>
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<td>ATTR 652</td>
<td>Clinical Education II</td>
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<td>ATTR 654</td>
<td>Clinical Education IV</td>
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<td>Clinical Education V</td>
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<td>Clinical Education VI</td>
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<tr>
<td>ATTR 660</td>
<td>Prevention and Care of Injuries</td>
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<tr>
<td>ATTR 661</td>
<td>Prevention and Care of Injuries Lab</td>
</tr>
<tr>
<td>ATTR 662</td>
<td>Clinical Examination and Diagnosis-Lower Extremity</td>
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<tr>
<td>ATTR 663</td>
<td>Clinical Examination and Diagnosis-Lower Extremity Lab</td>
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<tr>
<td>ATTR 664</td>
<td>Clinical Examination and Diagnosis-Upper Extremity</td>
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<td>ATTR 666</td>
<td>Physical Rehabilitation</td>
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<tr>
<td>ATTR 667</td>
<td>Physical Rehabilitation Lab</td>
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<tr>
<td>ATTR 668</td>
<td>Therapeutic Modalities</td>
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<tr>
<td>ATTR 669</td>
<td>Therapeutic Modalities Lab</td>
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<tr>
<td>ATTR 670</td>
<td>General Medical Conditions and Therapeutic Medication</td>
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<td>ATTR 671</td>
<td>Organization and Administration in Athletic Training</td>
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<td>ATTR 672</td>
<td>Professional Preparation and Issues in Athletic Training</td>
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<tr>
<td>ATTR 673</td>
<td>Manual Therapy in Athletic Training</td>
</tr>
<tr>
<td>KINE 628</td>
<td>Nutrition in Sports and Exercise</td>
</tr>
<tr>
<td>KINE 629</td>
<td>Physiology of Strength and Conditioning</td>
</tr>
<tr>
<td>KINE 685</td>
<td>Directed Studies</td>
</tr>
</tbody>
</table>

Total: 60 hours
DATE:  7 October 2015
TO:  Leroy Dorsey, Associate Dean, College of Liberal Arts
CC:  Tiffany Green, Senior Administrative Coordinator, Office of the Dean, College of
Liberal Arts
FROM:  Kirsten Pullen, Associate Professor and Director of Graduate Studies

RE:  Curricular Changes to the MA in Performance Studies

This memo details several curricular changes to the MA in Performance Studies. We are in
the 6th year of offering the MA degree, and are revising the curriculum to reflect what we
are doing in practice, rather than what we assumed we'd do when we developed the
program.

Course Withdrawal:
-  PERF612: Music Capitalism is being withdrawn because it has never been and never
will be offered.

Course Changes:
-  PERF605: Changing the name because the program does not actually offer topics
courses; changing the description because it may not be taken twice; changing the
prerequisites to bring it in line with other departmental prerequisites.
-  PERF611: Changing the name to better reflect the content of the course; changing the
description to better reflect the content of the course.
-  PERF615: Changing the name to more clearly differentiate the course from PERF608
(see below); changing the description to better reflect the content of the course.
-  PERF621: Changing the name because the program does not actually offer topics
courses; changing the description because it may not be taken twice; changing the
prerequisites to bring it in line with other departmental prerequisites.

Course Proposals:
-  PERF606: Developed to take advantage of new faculty expertise.
-  PERF607: Developed to take advantage of new faculty expertise.
-  PERF608: Developed to take advantage of new faculty expertise.
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

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

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

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

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

5. Brief description of change:
   Modified requirements for core curriculum classes, defined competency areas, added requirements for oral presentation, ethics, and grant writing.

6. Rationale for change:
   These changes were part of the recommendations from our recent Academic Program Review and also reflect the changing nature of genetics research. A course in computational genetics is an essential training component for all genetics students. The competency areas were defined to ensure that each student had some breadth to their course work. Ethics training is required for all students supported on federal funds. A course in grant writing will improve the writing skills of the students and is an essential part of their career development.

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/in-d/s.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-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:

Craig Carter
Department Head or Program Chair (Type Name & Sign)
Date 10-16-15

Dean of College
Date

Chair, College Review Committee
Date 10-24-15

Chair, GC or UCC
Date 11-5-15

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra-williams@tamu.edu.
Curricular Services - 04/14
COURSE REQUIREMENTS FOR DOCTORATE AND MASTER'S DEGREES IN GENETICS

- GENE 603 Introduction to Genetics (4 CR)
- GENE 612 Population Genetics (3 CR) OR GENE 613 Quantitative Genetics (3 CR) - Removed, replaced with Computational Genetics regained
- GENE 631 Biochemical Genetics (3 CR) - Removed
- One additional course (elective) in Genetics or a related field to be chosen by the student and the student's advisory committee.* - Now 9 CR from at least 3 competency areas.
- GENE 608 Critical Analysis of the Genetics Literature (1 CR) - Changed name to model genetic systems and increased to 2 credits
- GENE 697 Teaching Genetics (for students who are T.A.s for GENE 301 or 432) - for all students.
- GENE 685 Directed Studies: Lab Rotation (1 CR)
- 681 (seminar/journal club) any departmental prefix, 3 semesters for Ph.D. students and 1 semester for M.S. students - Changed to at least 2 GENE 681 for both Ph.D. and M.S.

* Courses that would meet this requirement include, but are not limited to GENE 620 Cytogenetics, GENE 643 Quantitative Genetics and Plant Breeding, GENE 655 Complex Genomes, GENE/ANSC 614 Maximum Likelihood Estimation of Genetics, ANSC 628 Animal Breeding, BIOL 650 Genomics, ANSC 689 Special Topics in Databases and Programming for Biologists, or MICR 614 Microbial Signaling and Development.

Note: GENE 603 is a prerequisite for GENE 612, 613, and 620. Most graduate students will begin their studies with GENE 603, however, if they come to Texas A&M with an advanced (graduate) level course in Genetics, they may skip GENE 603; the Chair of the Faculty of Genetics will make this decision after reviewing the documentation provided by the student. Also, the course requirements are essentially the same for MS and Ph.D. degrees for the first year of study.

Fall semester courses (YR. 1):
Typically, new students entering in the fall semester will start with:
GENE 603 (4 hrs.) - Genetics
GENE 608 (1 hr.) - Critical Analysis of Genetics Literature - 2 hrs., + name change
GENE 697 (1 hr.) - Teaching Genetics Labs - removed
(Regent's fellowship students do not take this course; they take
GENE 685 (3 hr.) - Directed Studies (rotation credit) - 1 cr hr only.

TOTAL: 9 hours
Spring semester course (YR. 1) s:
GENE 631 (3 hrs.) - Biochemical Genetics - removed, replaced with Computational Genet
GENE 697 (1 hr.) - Teaching Genetics Labs
GENE 685 (1 hr.) - Directed Studies (rotation credit) - removed, replaced with GENE 691 - Res
Elective course (3hr) - Added 1 hr. - Research Ethics requirement

Other Course requirements
GENE 697 (1 hr.) - Teaching Genetic Labs (Required for TAs)

Students with do not take GENE 697. Instead they can register for GENE 685 -
(1 hr) Directed Studies, another 681 (Seminar), or a 1 hr. module.

TOTAL: 9 hours

Summer:
STAT 651 - Statistics in Research I, if needed

If the graduate student has chosen a lab at this time, he/she will take:
GENE 691 (hrs.) - Research

IF NOT... he/she will take
GENE 685 (3 hrs. each 5 week session) - Directed Studies
Summer Total: 6 hrs. for 10-wk. Session, or, 3 hrs. for each 5 week session

The 4th semester, the graduate student will continue to take the required courses from
the "core" courses and select a thesis committee. At this time, the student's committee
advisor will prescribe additional courses for the student to take to complete his/her
degree.

Fall YR.2 GENE 612 (Pop.Gen.-3 hrs.) or
Spring YR.2 GENE 613(Quant.Gen.-3 hrs.)

TOTAL HOURS FOR MASTERS = Thesis - minimum 32 hours, plus
completion of thesis.
Non-thesis - 36 hours
minimum 96 HOURS, plus - 96 hrs. only,
completion of thesis.
64 HOURS, plus
completion of thesis if one has.
already completed a M.S. degree.
M.S. in Genetics

Required Courses
1) GENE 603 (4 hrs.) Genetics
2) Computational Genetics (3 hrs.)
   • can be met through a variety of courses such as CSCE 601, BIOL 651, VTPP 638, STAT 657
3) GENE 608 (2 hrs.) Model Genetics Systems
4) GENE 681 (1 hr.) Seminar
   • Students will take at least 2 GENE 681 Seminars.
5) GENE 685 (1 hr.) Research Rotations
   • Students will perform at least 1 semester of research rotations.
6) GENE 697 (1 hr.) Teaching Genetics Labs
   • Students will teach as a lab TA for at least 1 semester
7) Research Ethics (1 hr.)
   • can be met through a variety of existing courses.
8) Grant Writing (1 hr.)
   • can be met through a variety of existing courses.

Elective Courses (9 hrs.) – Students will take a minimum of 9 hrs. (can be a mix of 3 hrs., or 1-2 hr. modular courses) spread across at least three of the following competency areas, which can be satisfied by courses such as the following.

1) Molecular genetics
   • GENE 626, GENE 631, GENE 648, GENE 655, GENE 677
2) Quantitative and population genetics
   • GENE 606, GENE 612, GENE 613, GENE 614, GENE 638, GENE 643, ANSC 628, ANSC 689 – Advanced Quantitative Genetics, SCSC 641, SCSC 642
3) Statistics
   • STAT 651, STAT 652, STAT 643, PHEB 613, PHEB 614
4) Organismal genetics
   • GENE 633, BIOL 611, ANSC 624, VTPP 638, BIOL 652, MSCI 630, BIOL 635
5) Cytogenetics
   • GENE 620
1st Year

Fall
GENE 603 (4 hrs.) – Genetics
GENE 608 (2 hrs.) – Model Genetic Systems
GENE 681 (1 hr.) - Seminar
GENE 685 (1 hr.) - Rotations
BIOL 689 (1 hr.) – Grant Writing

Spring
XXXX ### (3 hrs.) - Computational Genetics
XXXX ### (3 hrs.) - Elective
XXXX ### (1 hr.) - Research Ethics
GENE 697 (1 hr.) - Teaching Genetics Labs
GENE 691 (1 hr.) - Research

2nd Year

Fall
XXXX ### (3 hrs.) - Elective
XXXX ### (3 hrs.) - Elective
GENE 691 (3 hrs.) - Research
Submit Degree Plan

Spring
GENE 691 (9 hrs.) – Research

Total Hours for M.S.
- Thesis – 32 hrs. plus completion of thesis
- Non-Thesis – 36 hrs.
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):
   Genetics
3. Course prefix, number and complete title of course:
   GENE 608 Critical Analysis of Genetics Literature
   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 signature of both department heads.
   d. Change in course title and description. Enter complete current course title and current course description in item 9; enter proposed course title and proposed course description in item 10. Complete item 11a and b for a change in title.
   e. Change in course number, contact hours (lab & lecture), and semester credit hours. Complete item 11a and b. Attach a course syllabus.
5. Is this an existing core curriculum course?
   □ Yes  ✔ No
6. If grade type is changing for existing course, indicate the new grade type:
   □ Grade  □ S/U  □ P/F (CLMD)
7. If this course will be stacked, please indicate the course number of the stacked course:
   ✔ I verify that I have reviewed the FAQ for Export Control Basics for Distance Education (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
8. Complete current course title and current catalog course description:
   Critical Analysis of Genetics Literature. An introduction to primary literature in the field of genetics which will give students experience in critically evaluating scientific papers and develop an appreciation of how genetics can be used to address important biological questions.
9. Complete proposed course title and proposed catalog course description (not to exceed 50 words):

10. As currently in course inventory:

    Prefix  Course #  Title (excluding punctuation)
    GENE  608  CRIT ANALYSIS GENE LIT

    | Lect. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | FICE Code | Level |
    |-------|-----|-------|-----|------------------|-------------|-----------|-------|
    | 1.00  |     |       | 1.00| 26.0801.00      | GENE        | 0 0 3 6 3 2 | 6     |

    Change to:

    Prefix  Course #  Title (excluding punctuation)
    GENE  608  GENETIC MODEL SYSTEMS

    | Lect. | Lab | Other | SCH | CIP and Fund Code | Admin. Unit | Acad. Year | FICE Code |
    |-------|-----|-------|-----|------------------|-------------|------------|-----------|
    | 2.00  |     |       | 2.00| 26.0801.00      | GENE        | 16 - 17    | 0 0 3 6 3 2 |
    Level 6

Approval recommended by:
Craig Coates
Department Head or Program Chair (Type Name & Sign) Date
Chair, College Review Committee Date
Dean of College Date
Chair, GC or UCC Date

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

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra.williams@tamu.edu.
Curricular Services – 08/14
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type:
   - Undergraduate
   - Graduate
   - First Professional (e.g., Law, Med, etc.)

2. Request change for:
   - Degree Program
   - Minor
   - Certificate

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):
   Genetics
   Ph.D. in Genetics

4. Brief description of change:
   Modified requirements for core curriculum classes, defined competency areas, added requirements for oral presentation, ethics, and grant writing.

5. Rationale for change:
   These changes were part of the recommendations from our recent Academic Program Review and also reflect the changing nature of genetics research. A course in computational genetics is an essential training component for all genetics students. The competency areas were defined to ensure that each student had some breadth to their course work. The oral presentation requirement will improve the presentation skills of the students and provides them a platform to present their research to the faculty as a whole. Ethics training is required for all students supported on federal funds. A course in grant writing will improve the writing skills of the students and is an essential part of their career development.

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

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

7. Will degree program hours change (increase/decrease) due to the proposed curriculum changes?
   - Yes
   - No

8. If yes, degree program hours will change from: _______ to: _______

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:
Craig Coates, 10-16-15
Dean of College, 11-5-15
Chair, College Review Committee, 10/4/15
Chair, GC or UCC, 11-5-15

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

Information for Degree Evaluation

Step 3: Select a major. Click "add more" to add minors to the What-If evaluation.

Program Description: Doctor of Philosophy

Time Limits: All requirements for the degree must be completed within ten consecutive years.

Degree Plan: A Graduate Degree Plan of at least 96 hrs beyond a baccalaureate degree or 64 hrs beyond a master's degree or a DVM or a MD from a U.S. institution.

Course Limitations: Courses exceeding limits below will not be considered for meeting degree requirements.

1. Only approved courses on the degree plan will be considered for this program.
2. No correspondence study may be used.
3. No credit hours of FREN 601 or GERM 603 may be used.
4. No credit hours of extension course work may be used.
5. For other course exclusions refer to the Graduate Catalog.

Advisory Committee: The Advisory Committee consists of at least four members of the Graduate Faculty, one of which must be from outside the student's major department.

Residence Requirement: If entering with a baccalaureate degree, one year plus one semester must be spent in resident study. If entering with a master's degree, or a DVM or MD from a U.S. institution, one year must be spent in resident study. One year may include two adjacent long semesters or one long semester and one adjacent 10-week summer term of 9 hrs each.

Research Proposal: A dissertation proposal approved by the Advisory Committee, Department Head and the Office of Graduate Studies is required.

Preliminary Examination: The result of the Preliminary Exam must be received, along with the Checklist, by the Office of Graduate Studies within ten days of the oral examination date. All degree requirements must be completed within a four year time period following the preliminary exam or the preliminary exam is voided and must be repeated.

To be eligible to hold a preliminary exam, the student:
1. must have a Degree Plan approved by the Office of Graduate Studies no later than ninety days prior to the preliminary exam,
2. must have a graduate GPR of at least 3.0 (listed as "Program GPA" below),
3. must have a degree plan GPR of at least 3.0,
4. must be registered in the university,
5. must be within 6 hrs of completing all formal (graded) course work on the degree plan (i.e., all course work except 681, 684, 690, and 691).

Admission to Candidacy: To achieve Admission to Candidacy, the student:

1. must have completed all formal course work on the degree plan with the exception of any remaining 681, 684, 690 and 691,
2. must have a graduate GPR of at least 3.0 (listed as "Program GPA" below),
3. must have a Degree Plan GPR of at least 3.0 with no grade lower than C in any course on the degree plan,
4. must have passed the preliminary examination (written and oral portions),
5. must have an approved dissertation proposal,
6. must have met the residence requirements.

**Dissertation Defense:** The doctoral student is allowed only one opportunity to take the dissertation defense. The request to hold and announce the defense must be submitted to the Office of Graduate Studies a minimum of 10 working days in advance of the scheduled date.

To be eligible to hold the defense, the student:
1. must have a graduate GPR of at least 3.0 (listed as "Program GPA" below),
2. must have a Degree Plan GPR of at least 3.0,
3. must be admitted to candidacy,
4. must have completed or be registered for all remaining degree plan course work,
5. must be registered in the university.
6. must have the dissertation in final form and ready for distribution to all committee members,
7. must complete all degree requirements within a four year period following the preliminary exam.

**Dissertation:** The final version of the dissertation must be cleared by the Office of Graduate Studies no later than one year after the defense or within the ten year time limit, whichever is first.
- GENE 603 Introduction to Genetics (4 CR)
- GENE 612 Population Genetics (3 CR) OR GENE 613 Quantitative Genetics (3 CR) - Removed, replaced with Computational Genetics 3 CR
- GENE 631 Biochemical Genetics (3 CR) - Removed
- One additional course (elective) in Genetics or a related field to be chosen by the student and the student's advisory committee.* - Now 9 CR from at least 3 competency areas.
- GENE 608 Critical Analysis of the Genetics Literature (1 CR) - Changed name to model genetic systems and increased to 2 credit
- GENE 697 Teaching Genetics (for students who are T.A.s for GENE 301 or 432) - For all students.
- GENE 685 Directed Studies: Lab Rotation (1 CR)
- 681 (seminar/journal club) any departmental prefix, 3 semesters for Ph.D. students and 1 semester for M.S. students - Changed to at least 2 GENE 681 for both Ph.D. and M.S.

* Courses that would meet this requirement include, but are not limited to GENE 620 Cytogenetics, GENE 643 Quantitative Genetics and Plant Breeding, GENE 655 Complex Genomes, GENE/ANSC 614 Maximum Likelihood Estimation of Genetics, ANSC 628 Animal Breeding, BIOL 650 Genomics, ANSC 689 Special Topics in Databases and Programming for Biologists, or MICR 614 Microbial Signaling and Development.

Note: GENE 603 is a prerequisite for GENE 612, 613, and 620. Most graduate students will begin their studies with GENE 603, however, if they come to Texas A&M with an advanced (graduate) level course in Genetics, they may skip GENE 603; the Chair of the Faculty of Genetics will make this decision after reviewing the documentation provided by the student.
Also, the course requirements are essentially the same for MS and Ph.D. degrees for the first year of study.

**Fall semester courses (YR. 1):**
Typically, new students entering in the fall semester will start with:
- GENE 603 (4 hrs.) - Genetics
- GENE 608 (1 hr.) - Critical Analysis of Genetics Literature - 2 hrs. + Name change
- GENE 697 (1 hr.) - Teaching Genetics Labs - Removed
(Regent's fellowship students do not take this course; they take
- GENE 685 (3 hr.) - Directed Studies (rotation credit) - 1 cr/hr only.

TOTAL: 9 hours
- Added GENE 681 - Seminar
- Added BIOL 689 - Grant Writing.
Spring semester course (YR. 1)s:
GENE 631 (3 hrs.) - Biochemical Genetics - removed, replaced with Computational Genetics
GENE 697 (1 hr.) - Teaching Genetics Labs
GENE 685 (1 hr.) - Directed Studies (rotation credit) - removed, replaced with GENE 691 - Research
Elective course (3hr) - Added 1 hr. - Research Ethics requirement.

Other Course requirements
GENE 697 (1 hr.) - Teaching Genetic Labs (Required for TAs)

Students with do not take GENE 697. Instead they can register for GENE 685 - (1 hr) Directed Studies, another 681 (Seminar), or a 1 hr. module.

TOTAL: 9 hours

Summer:
STAT 651 - Statistics in Research I, if needed

If the graduate student has chosen a lab at this time, he/she will take:
GENE 691 (hrs.) - Research

IF NOT...he/she will take
GENE 685 (3 hrs. each 5 week session) - Directed Studies
Summer Total: 6 hrs. for 10-wk. Session, or, 3 hrs. for each 5 week session

The 4th semester, the graduate student will continue to take the required courses from the “core” courses and select a thesis committee. At this time, the student’s committee advisor will prescribe additional courses for the student to take to complete his/her degree.

Fall YR.2 GENE 612 (Pop.Gen.-3 hrs.) or
Spring YR.2 GENE 613 (Quant.Gen.-3 hrs.)

TOTAL HOURS FOR MASTERS = Thesis - minimum 32 hours, plus completion of thesis.
Non-thesis - 36 hours

TOTAL HOURS FOR Ph.D. = minimum 96 HOURS, plus 96 hrs. only, completion of thesis.
64 HOURS, plus completion of thesis if one has already completed a M.S. degree.
Ph.D. in Genetics

Required Courses
1) GENE 603 (4 hrs.) Genetics
2) Computational Genetics (3 hrs.)
   • can be met through a variety of courses such as CSCE 601, BIOL 651, VTPP 638, STAT 657
3) GENE 608 (2 hrs.) Model Genetics Systems
4) GENE 681 (1 hr.) Seminar
   • Students will take at least 2 GENE 681 Seminars.
5) GENE 682 (1 hr.) Seminar Presentation
   • Students will take at least 2 GENE 682 Seminar Presentations
6) GENE 685 (1 hr.) Research Rotations
   • Students will perform at least 1 semester of research rotations.
7) GENE 697 (1 hr.) Teaching Genetics Labs
   • Students will teach as a lab TA for at least 1 semester
8) Research Ethics (1 hr.)
   • can be met through a variety of existing courses.
9) Grant Writing (1 hr.)
   • can be met through a variety of existing courses.

Elective Courses (9 hrs.) – Students will take a minimum of 9 hrs. (can be a mix of 3 hrs., or 1-2 hr. modular courses) spread across at least three of the following competency areas, which can be satisfied by courses such as the following.

1) Molecular genetics
   • GENE 626, GENE 631, GENE 648, GENE 655, GENE 677
2) Quantitative and population genetics
   • GENE 606, GENE 612, GENE 613, GENE 614, GENE 638, GENE 643, ANSC 628, ANSC 689 – Advanced Quantitative Genetics, SCSC 641, SCSC 642
3) Statistics
   • STAT 651, STAT 652, STAT 643, PHEB 613, PHEB 614
4) Organismal genetics
   • GENE 633, BIOL 611, ANSC 624, VTPP 638, BIOL 652, MSCI 630, BIOL 635
5) Cytogenetics
   • GENE 620
1st Year

Fall
GENE 603 (4 hrs.) – Genetics
GENE 608 (2 hrs.) – Model Genetic Systems
GENE 681 (1 hr.) - Seminar
GENE 685 (1 hr.) - Rotations
BIOL 689 (1 hr.) – Grant Writing

Spring
XXXX ### (3 hrs.) - Computational Genetics
XXXX ### (3 hrs.) - Elective
XXXX ### (1 hr.) - Research Ethics
GENE 697 (1 hr.) - Teaching Genetics Labs
GENE 691 (1 hr.) - Research

2nd Year

Fall
XXXX ### (3 hrs.) - Elective
XXXX ### (3 hrs.) - Elective
GENE 691 (3 hrs.) - Research
Submit Degree Plan

Spring
GENE 682 (1 hr.) – Seminar Presentation
GENE 691 (8 hrs.) - Research

3rd Year

Fall
GENE 691 (9 hrs.) - Research
Preliminary Exam

Spring
GENE 691 (9 hrs.) - Research

4th Year

Fall
GENE 682 (1 hr.) – Seminar Presentation
GENE 691 (8 hrs.) - Research

Total Hours for Ph.D.
- 96 hrs. plus completion of thesis.
- 64 hrs. plus completion of thesis if previously completed a M.S. degree
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

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

2. Request change for:
   - [ ] Department Program
   - [ ] Minor
   - [x] Certificate

3. Request submitted by (Department or Program Name):
   Institute for Scientific Computation (ISC)

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

5. Brief description of change:
The ISC proposes changing the Computational Sciences Certificate Program by introducing clarity into the catalog description, changing the curriculum from requiring two core and two elective courses to one core and three elective courses, and adding additional elective course options.

6. Rationale for change: Program changes will provide clarity in certificate requirements and facilitate increased student participation.

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

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

8. Will degree program hours change (increase/decrease) due to the proposed curriculum changes? [ ] Yes [x] No
   a. If yes, degree program hours will change
   b. from: __________ to: __________
   c. If yes, is the Texas Higher Education Coordinating Board form attached?
      [ ] Yes [x] No
      http://www.thecb.state.tx.us/index.cfm?objectid=A0F9E7FA-9A02-4F11-2755A03B8FF01D60

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:

Yalchin Efendiev
Department Head or Program Chair (Type Name & Sign) [Signature] 10-16-15
Date
[Signature] 10-21-15
Date
Dean of College

Chair, College Review Committee [Signature] 10-20-15
Date
[Signature] 11-5-15
Date
Chair, GC or UCC

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra-williams@tamu.edu
Curricular Services - 04/14
Proposed Catalog Description for the Computational Sciences Certificate Program:

The Institute for Scientific Computation developed the Computational Sciences Certificate Program to meet the increased need for computational techniques that help solve complex science and engineering problems. This program targets science and engineering students enrolled in graduate studies, providing them with a broad-based multidisciplinary enhancement to their degree program and preparing them with the intellectual infrastructure necessary as a leader in computational science, engineering, and technology. By completing this certification program, a graduate will receive an official certified transcript that will add value and marketability to their advanced degree. The Computational Sciences Certificate Program provides formal documentation on a student’s transcript that they successfully completed courses focused on computational aspects that supplement their degree in science or engineering. To fulfill the certification requirements, a student must complete four total courses (one core and three electives), as described by the program curriculum, and a capstone project within their home department. For more information, visit http://isc.tamu.edu.
### Proposed Curriculum for the Computational Sciences Certificate Program:

#### Core Courses
Select one of the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 609</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td>STAT 604</td>
<td>Topics in Statistical Computations</td>
</tr>
<tr>
<td>CSCE 659/</td>
<td>Parallel/Distributed Numerical Algorithms and Applications</td>
</tr>
<tr>
<td>ECEN 659</td>
<td></td>
</tr>
</tbody>
</table>

#### Elective Courses
Select three of the following, one of which must be exclusive of the student's home department

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO 615</td>
<td>Numerical Methods for Internal Flow</td>
</tr>
<tr>
<td>CSCE 603</td>
<td>Database Systems and Applications</td>
</tr>
<tr>
<td>CSCE 605</td>
<td>Compiler Design</td>
</tr>
<tr>
<td>CSCE 626</td>
<td>Parallel Algorithm Design and Analysis</td>
</tr>
<tr>
<td>CSCE 654</td>
<td>Supercomputing</td>
</tr>
<tr>
<td>CVEN 680</td>
<td>Advanced Computation Methods for Fluid Flow</td>
</tr>
<tr>
<td>CVEN 688</td>
<td>Computational Fluid Dynamics</td>
</tr>
<tr>
<td>GEOP 620</td>
<td>Geophysical Inverse Theory</td>
</tr>
<tr>
<td>MATH 610</td>
<td>Numerical Methods in Partial Differential Equations</td>
</tr>
<tr>
<td>MATH 648</td>
<td>Computational Algebraic Geometry</td>
</tr>
<tr>
<td>MATH 661</td>
<td>Mathematical Theory of Finite Element Methods</td>
</tr>
<tr>
<td>MATH 676</td>
<td>Finite Element Methods in Scientific Computing</td>
</tr>
<tr>
<td>MEEN 672</td>
<td>Introduction to Finite Element Method</td>
</tr>
<tr>
<td>NUEN 618</td>
<td>Multiphysics Computations in Nuclear Science and Engineering</td>
</tr>
<tr>
<td>OCNG 615</td>
<td>Numerical Modeling of Ocean Circulation I</td>
</tr>
<tr>
<td>PETE 656</td>
<td>Advanced Numerical Methods for Reservoir Simulation</td>
</tr>
<tr>
<td>STAT 605</td>
<td>Advanced Statistical Computations</td>
</tr>
<tr>
<td>STAT 608</td>
<td>Regression Analysis</td>
</tr>
<tr>
<td>STAT 626</td>
<td>Methods in Time Series Analysis</td>
</tr>
<tr>
<td>STAT 636</td>
<td>Applied Multivariate Analysis</td>
</tr>
<tr>
<td>CSCE 620/</td>
<td>Computational Geometry</td>
</tr>
<tr>
<td>VIZA 670</td>
<td></td>
</tr>
<tr>
<td>MATH 660/</td>
<td>Computational Linear Algebra</td>
</tr>
<tr>
<td>CSCE 660</td>
<td></td>
</tr>
</tbody>
</table>

#### Other
Capstone Project

#### Total Semester Credit Hours

12

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1. MATH 609 will also satisfy the CSCE 653 prerequisite.
2. With approval by the director of the Institute for Scientific Computation (ISC), students may substitute a course outside those listed as elective options. In such situations, the student must justify the substitution to and seek approval from the ISC's director prior to enrolling in the course. The director will include their support for the substitution in a memorandum to the Office of Graduate Studies (OGS) after the student files their degree plan with OGS and copies of these documents with the ISC.
3. The capstone project’s goal is to provide students with experience in the computational sciences. The capstone project may be fulfilled by:
   1. an independent study graduate course within the student’s home department, or
   2. an independent study graduate course outside the student’s home department, or
   3. as part of a MS thesis or project required by the student’s home department, or
   4. as part of a PhD dissertation.

   To fulfill this requirement, the ISC's associate director or director must approve the capstone project, certify its computational component, and document its completion.
Computational Sciences - Certificate

The Computational Sciences Certificate was developed to meet the increased need for computational techniques to help solve complex science and engineering problems. This program is targeted to science and engineering students enrolled in graduate studies. The goal of the certificate program is to provide formal documentation upon a student's transcript that they have taken selected courses focused on the computational aspects that supplement a given degree in science and engineering. To fulfill the certification requirements, a student must complete four courses, as described by the program outline, and a capstone project in their home department.

This certification will provide a graduate student with a broad-based multidisciplinary enhancement to their degree program so they can prepare better with the intellectual infrastructure to be a more effective leader in computational science, engineering, and technology. By joining this certification program, a graduate will receive an official certified transcript that will add value and marketability to their advanced degree. For more information, visit http://www.tamu.research.education/EECE/ or send an email message to eese@tamu.edu.

Program Requirements

Course Options

- Select two courses from the following list:
  - Core Courses
  - Other Elective Courses

Capstone Project

Total Semester Credit Hours

Elective Courses

- Select the following courses, one of which will be exclusive of the student's home department:
  - MATH 609
  - STAT 604
  - CSCE/ECEN 659

Optional Course (see proposed curriculum document)

Mathematics

- MATH 609: Numerical Analysis
- MATH 610: Numerical Methods in Partial Differential Equations
- MATH 660: Computational Linear Algebra
- CSCE 660

Statistics

- STAT 604: Topics in Statistical Computations
- STAT 605: Advanced Statistical Computations
- STAT 608: Regression Analysis

CSE 603: Database Systems and Applications

CSC 595/ECEN 669: Parallel/Distributed Numerical Algorithms and Applications

CSE 660: Computational Linear Algebra

MATH 660

Each of the following courses will be offered once a year.

- MATH 609 will satisfy the CSCE 653 prerequisite.
DATE: October 12, 2015

TO: Dr. Bradley Shumbera
Assistant Director, Institute for Scientific Computation

FROM Rodney Bowersox  
Professor and Head of Aerospace Engineering

SUBJECT: Computational Sciences Certificate Program

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including AERO 615, Numerical Methods for Internal Flow, from the Department of Aerospace Engineering in its curriculum.
MEMORANDUM:

TO: R. Bradley Shumbera
   Assistant Director, Institute for Scientific Computation

FROM: Dilma Da Silva
       Department Head, Professor and Holder of the Ford Motor Company Design Professorship II

DATE: October 9, 2015

SUBJECT: Computational Science Certificate Program Changes

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including the following courses from the Department of Computer Science and Engineering in its curriculum:

- CPSC 603, Database Systems and Applications
- CPSC 605, Compiler Design
- CPSC 620/VIZA 671, Computational Geometry
- CPSC 626, Parallel Algorithm Design and Analysis – CPSC 654, Supercomputing
- CPSC 659/ECEN/659, Parallel/Distributed Numerical Algorithms and Applications
- CPSC 660/MATH 660, Computational Linear Algebra

Should you have any questions or concerns, please feel free to contact me.
Hello,
Yes it is acceptable to list these classes. I had to check with the new DH in OCEN and he agrees.
Thanks
Robin

Sent from my iPad

On Oct 15, 2015, at 8:26 AM, Shumbera, R. Bradley <shumbera@tamu.edu> wrote:

Dr. Autenrieth,

Could you please update regarding my request from 10/7 (included below)?

R. Bradley Shumbera, Ph.D. | Assistant Director
Institute for Scientific Computation | Texas A&M University
3404 TAMU | College Station, TX 7743-3404

ph: 979.458.0448 | mobile: 979.224.4415 | fax: 979.862.3983
shumbera@tamu.edu | http://isc.tamu.edu/

Developing Computational Technology to Advance Science & Engineering

From: Shumbera, R. Bradley
Sent: Wednesday, October 7, 2015 1:51 PM
To: Autenrieth, Robin <rautenrieth@civil.tamu.edu>
Subject: Computational Sciences Certificate Program Changes

Dr. Autenrieth,

The Institute for Scientific Computation is currently working to update its Computational Sciences Certificate program. This program targets science and engineering graduate students, providing them with formal documentation on their transcript that they successfully completed courses targeted at the computational sciences to supplement their degree. To promote increased student participation, we are updating the program’s curriculum by adding additional elective choices that will satisfy program requirements. Based on the recommendation of Dr. Chen, we are interested in adding the following courses from your department:

-- CVEN 680, Advanced Computation Methods for Fluid Flow
-- CVEN 688, Computational Fluid Dynamics

Would you kindly provide a short statement indicating your support for this move on departmental letterhead? Below you can find suggested wording you can use.
"I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including the following courses from the Department of Civil Engineering in its curriculum:

- CVEN 680, Advanced Computation Methods for Fluid Flow
- CVEN 688, Computational Fluid Dynamics"

If you have any questions or concerns, please feel free to contact me.

Best Regards,

R. Bradley Shumbera, Ph.D. | Assistant Director
Institute for Scientific Computation | Texas A&M University
3404 TAMU | College Station, TX 7743-3404

ph: 979.458.0448 | mobile: 979.224.4415 | fax: 979.862.3983
shumbera@tamu.edu | http://isc.tamu.edu/

----------------------------------------
Developing Computational Technology to Advance Science & Engineering
Inclusion of GEOP 620, Geophysical Inverse Theory in Computational Sciences Certification

October 7, 2015

To Whom it May Concern:

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including GEOP 620, Geophysical Inverse Theory from the Department of Geology and Geophysics in its curriculum.

Sincerely,

Dr. Michael C. Pope
Professor and Head
Department of Geology and Geophysics
October 7, 2015

To Whom It May Concern:

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including the following courses from the Department of Mathematics in its curriculum:

- MATH 609, Numerical Analysis
- MATH 610, Numerical Methods in Partial Differential Equations
- Math648, Computational Algebraic Geometry
- MATH 660/CSCE 660, Computational Linear Algebra
- MATH 661, Mathematical Theory of Finite Element Methods
- MATH 676, Finite Element Methods in Scientific Computing

Sincerely,

Emil J. Straube
Professor and Head
Dear Dr. Schumbera

"I support the Institute for Scientific Computation's efforts to revitalize the Computational Sciences Certificate Program by including MEEN 672, Introduction to Finite Element Method, from the Department of Mechanical Engineering in its curriculum."

Thanks, Andreas

Andreas A. Polycarpou, Ph.D.
Department Head & Meinhard H. Kotzebue '14 Professor
Texas A&M University
Department of Mechanical Engineering
100 Mechanical Engineering Building, 3123 TAMU
College Station, TX 77843-3123
Tel (979) 458-4061; Fax (979) 845-3081
E-mail: tamu-me-head@mengr-tamu.org
Dept Web Site: http://www.mengr.tamu.edu
Dear Dr. Shumbera,

This is to inform you the Department of Nuclear Engineering supports the Institute for Scientific Computation's efforts to revitalize the Computational Sciences Certificate Program by including NUEN 618, Multiphysics Computations in Nuclear Science and Engineering, from the Department of Nuclear Engineering in its curriculum.

Should you need more information, please contact me.

Thanks,
Yassin

Yassin A. Hassan
Department Head, Nuclear Engineering
Sallie and Don Davis’ 61 Professor of Engineering
Editor-in-Chief of Nuclear Engineering and Design Journal
Texas A&M University
MS 3133
College Station, Texas 77843-3133
Phone: 979 845 7090
Cell: 979 218 4417
Email: y-hassan@tamu.edu
October 14, 2015

To Whom It May Concern

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including OCNG 615, Numerical Modeling of Ocean Circulation I, from the Department of Oceanography in its curriculum.

Please let me know if I may be of any assistance in enhancing this transformative educational program.

Sincerely,

Debbie Thomas
October 7, 2015

R. Bradley Shumbera, Ph.D.
Assistant Director
Institute for Scientific Computation
Texas A&M University
3404 TAMU
College Station, TX 7743-3404

Dear Dr. Shumbera:

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including PETE 656, Advanced Numerical Methods for Reservoir Simulation from the Harold Vance Department of Petroleum Engineering in its curriculum.

If you have any questions or concerns, please feel free to contact me.

Sincerely,

\[ Signature \]
A. Daniel Hill
Department Head
Noble Endowed Chair
October 7, 2015

R. Bradley Shumbera, Assistant Director
Institute for Scientific Computation
Texas A&M University
3404 TAMU
College Station, TX 7743-3404

Dear Dr. Shumbera,

I support the Institute for Scientific Computation’s efforts to revitalize the Computational Sciences Certificate Program by including the following courses from the Department of Statistics in its curriculum:

-- STAT 604, Topics in Statistical Computations
-- STAT 605, Advanced Statistical Computations
-- STAT 608, Regression Analysis
-- STAT 626, Methods in Time Series Analysis
-- STAT 636, Applied Multivariate Analysis

Sincerely,

Valen Johnson
Professor and Head
Department of Statistics
Texas A&M University
July 17, 2015

To: Dr. Karen Butler-Purry, Associate Provost for Graduate and Professional Studies

Through: Dr. Mark Zoran, Chair of Graduate Council

Through: Dr. Antonietta Quigg, Associate Vice President for Research and Graduate Studies

From: Dr. Joan P. Mileski, Department Head, Maritime Administration

The Department of Maritime Administration respectfully requests waiving of the one-semester residency requirement for students in the Maritime Administration and Logistics (MAAL) program.

The MAAL program prepares professionals for leadership positions in the public and private sectors. Designed for working professionals in maritime fields, the program seeks to provide an avenue for a professional degree at a part time pace; thus allowing employment to be continued. The residency requirement creates restrictions for our target audience; limiting the number of applicants. Waiver of this requirement will broaden access to this audience.

Thank you for your consideration.
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):  
   Maritime Administration and Logistics  

Program Designation and Name  
MMAL: Masters in Maritime Administration and Logistics (3+2 thesis option)  

4. (e.g., B.A. in History, Minor in History, Certificate in En)  
   
5. Brief description of change:  

   Change MGMT 211 to a required course and reduce number of required general elective hours. Add MARA 475 and MARA 675 (new course approvals in process) as MARA directed electives.  

6. Rationale for change:  

   Making MGMT 211 a required course is necessary for achieving the MARA department's AACSB accreditation goal and will reduce the number of general electives needed to fulfill the degree program. Adding MARA 475 and MARA 675 as permanent MARA directed electives to curriculum.  

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-9A92-4F11-2756AD3BBFFQ1D60  

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:  

<table>
<thead>
<tr>
<th>Department Head or Program Chair (Type Name &amp; Sign)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ilene P. Ledesma</td>
<td>9/15</td>
</tr>
<tr>
<td>Chair, College Review Committee</td>
<td>10/11/15</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Dean of College (Type Name &amp; Sign)</th>
<th>Date</th>
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<tbody>
<tr>
<td></td>
<td>10/11/15</td>
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</thead>
<tbody>
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<td></td>
<td>11/5/15</td>
</tr>
</tbody>
</table>

Questions regarding this form should be directed to Curricular Services at 845-8201 or sanford.williams@tamu.edu  
Curricular Services — 04/14
5-Year Curriculum: Maritime Administration (MARA) and Master of Maritime Administration and Logistics (MMAL)

This program allows Maritime Administration (MARA) majors to enter the graduate program for a Master of Maritime Administration and Logistics the beginning of their senior year, enabling students to receive their MARA undergraduate degree (B.S.) and a Master of Maritime Administration and Logistics (MMAL) graduate degree in five years.

Students admitted to the 5-year degree program will have completed 92 of the 120 hours of course work required to receive a bachelor's degree. These courses must include the specific prerequisites for a Bachelor of Science degree in Maritime Administration, as well as the required Texas A&M University core curriculum courses.

Maritime Administration majors who have at least a 3.25 GPA and who have taken all of their prerequisite courses and otherwise completed 92 hours by the fall of their fourth year will be eligible to apply for the 5-year program during their junior year. Applicants to the 5-year program will submit the same materials (including GMAT scores) as other MMAL applicants, and those whose records are judged to be competitive by the mid-January deadline will be admitted. Admission criteria will be the same as for other MMAL students.

Students who choose not to finish the MMAL degree after being admitted to the 5-year program may exit the program at any time. Completed MMAL courses will be applied to their bachelor's degree in Maritime Administration, as appropriate. Failure to complete the MMAL program will in no way impede their ability to attain a bachelor's degree in Maritime Administration when the requirements for that degree are completed. Those who pursue the joint program will receive both degrees upon completion of the entire 5-year program. Students will not graduate with a bachelor's degree in year four, but rather will earn both their Bachelor of Science and Master of Maritime Administration and Logistics at the end of year five.

Admitted students will be enrolled in Maritime Administration and Logistics graduate courses with an undergraduate classification (U4) during the fall of their fourth year and will be re-classified as degree seeking master's students (G7) upon completing 107 credit hours. This will normally occur at the beginning of the spring semester of year four. Students will take 12 fewer undergraduate credit hours. Graduate courses taken in the fifth year program will be counted double, as credit towards their MMAL degree and as substitutes for MARA and free electives required for the bachelor's degree.

Students will be required to complete 36 graduate hours. The graduate hours will include 7 core courses (21 credits) in economics, management, operations and logistics with 15 credit hours of electives. The electives will be chosen according to the interest of the student in either the Maritime Policy and Law track or the Shipping and Port Management track. Students will also take 21 hours of undergraduate level MARA electives that must include MARA 416 in order to satisfy the TAMU intensive writing requirement.

**FRESHMAN YEAR**

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**SOPHOMORE YEAR**

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**MARCH 211**

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### Spring Semester
- ACCT 230 Introduction to Accounting † .............................................. (3-0) 3
- ECON 203 Principles of Economics † .............................................. (3-0) 3
- MARA 212 Business Law † ................................................................. (3-0) 3
- MARA 281 Seminar in Undergraduate Research Methods † ..................... (1-0) 1
- MARA 304 Ocean Transportation II † ................................................ (3-0) 3
- POLS 207 State and Local Government ............................................. (3-0) 3

Total ................................................................. 16

### JUNIOR YEAR
#### Fall Semester
- MARA 373 Personnel Management † .................................................. (3-0) 3
- MARA 421 Admiralty Law † ................................................................. (3-0) 3
- SCMT 303 Statistical Methods † .......................................................... (3-0) 3
- Elective in MARA † ........................................................................... 3
- Elective in MARA † ........................................................................... 3

Total ................................................................. 16

#### Spring Semester
- MARA 440 Global Economy and Enterprise Management †*** ................. (3-0) 3
- MGMT 481 Seminar in Management † ................................................ (1-0) 1
- Elective in Creative Arts .................................................................... 3
- Elective in Language, Philosophy and Culture ..................................... 3
- Elective in MARA † ........................................................................... 3
- Elective in MARA † ........................................................................... 3

Total ................................................................. 16

Total Hours to be completed prior to admission to the graduate courses 92

### SENIOR YEAR/FIRST YEAR OF FIVE-YEAR PROGRAM
#### Fall Semester
- MARA 536 Managerial Decision Making ............................................. (3-0) 3
- MARA 641 Financial Management in Marine Transportation ................. (3-0) 3
- MARA 627 Marketing of Transportation Services .................................. (3-0) 3
- Elective in MARA † ........................................................................... 3
- Elective in MARA † ........................................................................... 3

Total ................................................................. 15

#### Spring Semester
- MARA 623 Economics Issues in Shipping ............................................. (3-0) 3
- MARA 664 Production, Operations and Logistics Management ............. (3-0) 3
- MARA 614 International Strategic Planning and Implementation ............. (3-0) 3
- Elective in MARA † ........................................................................... 3

Total ................................................................. 12

### SECOND YEAR OF FIVE-YEAR PROGRAM
#### Fall Semester
- MARA 624 Intermodal Transportation Operations .................................. (3-0) 3
- MMAL Elective * Graduate MMAL Elective ........................................ 3
- MMAL Elective * Graduate MMAL Elective ........................................ 3
- Elective (General) ........................................................................... 4

Total ................................................................. 13

#### Spring Semester
- MMAL Elective * Graduate MMAL Elective ........................................ 3
- MMAL Elective * Graduate MMAL Elective ........................................ 3
- MMAL Elective * Graduate MMAL Elective ........................................ 3
- Elective (General) ........................................................................... 12

Total Hours 144
Notes for the MARA/MMAL 3+2 Program

Note: All electives must be chosen in consultation with, and approved by, the student's academic advisor. Unless courses are specifically listed, see University Core Curriculum at http://core.tamu.edu/ for a listing of course options for Communication; Mathematics; Life and Physical Sciences; Language, Philosophy, and Culture; Creative Arts; American History; Government and Political Science; and Social and Behavioral Sciences. The 6-hour University Core Curriculum requirement for International and Cultural Diversity may be met with courses used to satisfy other degree requirements.

†- Indicates required courses in the Maritime Administration major. These courses will be used to compute the major GPA. At the time of graduation, a MARA major must have a GPA of 2.25 in their major. A MARA major must achieve a grade of "C" or better in BCON 202, BCON 203, ACCT 229, ACCT 230 and BCMT 303 as a graduation requirement. These courses may be repeated as necessary to meet this requirement, and the requirement applies to courses taken at TAMUG or offered for transfer from other institutions.

§ Students may satisfy the 9-credit hours of Life and Physical Science requirement through any combination of one, three or four credit hour courses.

△ The total hours may be increased if the student is required to take remedial math, remedial English, foreign language or International and Cultural Diversity courses.

V - MARA Elective: Students are required to complete 21 credit hours of MARA electives that must include MARA 416 to satisfy the intensive writing requirement. Students should choose 6 from the following courses:
   ACCT 315, ACCT 316, BCON 311, BCON 323, BCON 452, BCMT 336, MARA 401, MARA 402, MARA 416, MARA 424, MARA 433, MARA 450, MARA 460, MARA 470, MARA 484, MARA 483, MARA 489, MARA 491*, MARA 493*, MARA 447

* - Choose 12 credit hours from the following graduate level MMAL elective courses: MARA 604, MARA 616, MARA 640, MARA 650, MARA 652, MARA 658, MARA 660, MARA 670, MARA 672; or MARS 620, MARS 640, MARS 660, MARS 676

* approved in July 2015
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.

Program: [GV] BS MARA - 3+2 Program
Campus: Galveston
College: Galveston Campus
Degree: Bachelor of Science
Level: Undergraduate
Majors: Maritime Administration
Departments: Maritime Administration

Catalog Term: Fall 2015 - Galveston
Evaluation Term: Fall 2015 - Galveston
Expected Graduation Date: Fall 2015 - Galveston
Request Number: 289
Results as of: Sep 22, 2015

Met Credits

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Other Course Information

Transfer: 0.000 0.000

This is NOT an official evaluation.

Area: Major Coursework (60.000 credits) - Not Met

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[53]
unofficial evaluation

### Area: Supporting Coursework (21.000 credits) - Not Met

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Select 18 hours from the following courses: ACCT 315, 316; ECON 311, 332, 452; SCMT 336; MARA 342, 401, 402, 416, 424, 435, 450, 460, 470, 484, 485, 489, MARA 491*, MARA 493*, MARA 475

*approved in July 2015

unofficial evaluation

### Area: Communication (6.000 credits) - Not Met

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Total Credits and GPA 0.000

unofficial evaluation

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Total Credits and GPA 0.000

unofficial evaluation

### Area: Life and Physical Sciences (9.000 credits) - Not Met

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Total Credits and GPA 0.000

unofficial evaluation

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

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unofficial evaluation
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<tr>
<td></td>
<td></td>
<td>Lang, Phil, Culture Rqmt 3hrs</td>
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<tr>
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<td>Select any course with the Language, Philosophy and Culture attribute [KLPC].</td>
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**unofficial evaluation**

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<th>Area</th>
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**unofficial evaluation**

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**unofficial evaluation**

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**unofficial evaluation**
### Unofficial Evaluation

#### Area: Work Not Applied - Met

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Total Credits and GPA

#### Area: University Writing Requirement - Not Met

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<td>No</td>
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<td>Writing Requirement</td>
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<td>Select two courses with the Writing Requirement [UWRT]</td>
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Total Credits and GPA 0.000

#### Area: Int'l & Cult Diversity - Not Met

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<tr>
<td>No</td>
<td>A.</td>
<td>Int'l &amp; Cultural Diversity</td>
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<td>6 hours required. Select from courses with the International and Cultural Diversity attribute [UICD].</td>
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Total Credits and GPA 0.000

#### Area: Foreign Language - Not Met

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<tr>
<td>No</td>
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<td>Foreign Language Rqmt:</td>
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<td>Complete one of the followings:</td>
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<td></td>
<td></td>
<td>1. Two years of the same foreign language in High School.</td>
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<td></td>
<td>2. A two semester sequence of the same foreign language for University credit</td>
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Total Credits and GPA 0.000

#### Area: GPR-Major - Not Met

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<td>Major GPR 74+hrs</td>
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Total Credits and GPA
Area: Residence Requirement - Not Met

Description: Student must complete minimum of 36 hours of 300-400 level course work at Texas A&M University, 12 hours must be in field of study.

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<td>Residence - Major 12hrs</td>
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<td>B. Residence 24hrs</td>
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Total Credits and GPA

unofficial evaluation

Back to Display Options
**Program Evaluation**

*Master of Maritime Administration and Logistics*

**Time Limits:** All requirements for the degree must be completed within seven consecutive years.

**Degree Plan:** A Graduate Degree Plan of at least 36 hrs must be completed with a minimum GPR of 3.00 and no grade lower than C.

**Course Limitations (non-thesis option):** Courses exceeding limits below will not be considered for meeting degree requirements.

1. Only approved courses on the degree plan will be considered for this program.
2. No more than 12 hrs or one-third of the total hours on the degree plan, whichever is greater, may be used. Transfer course work must be completed at an accredited institution with a grade of B or better.
3. No more than 12 hrs taken in a non-degree seeking (064) classification may be used.
4. No more than 25 percent of the total degree plan hours may be used in any combination of the following categories:
   a. Not more than 4 hrs 684 (Professional Internship) may be used.
   b. Not more than 9 hrs of 605 (Directed Studies) may be used.
   c. Not more than 3 hrs of 690 (Research) may be used.
   d. Not more than 3 hrs of 695 (Frontiers in Research) may be used.
5. No more than 2 hrs of 681 (Seminar) may be used.
6. No more than 9 hrs of advanced undergraduate courses (300-499) may be used.
7. No correspondence study may be used.
8. No credit hours of extension course work may be used.
9. No credit hours of FRN 601 or GERM 603 may be used.
10. No credit hours of 691 (Research) may be used.

**Advisory Committee:** The Advisory Committee consists of the chair of the advisory committee.

**Residence Requirement:** During one semester or 2 consecutive 5-week summer terms, 9 hrs of resident credit must be completed.

**Final Examination:** A final comprehensive examination is required for thesis option students. The final examination may be written and/or oral. The request to hold and announce the final examination must be submitted to the Office of Graduate Studies a minimum of 10 working days in advance of the scheduled date.

To be eligible to hold the defense, the student:

1. must have a graduate GPR of at least 3.00 (listed as "Program GPA" below),
2. must have a Degree Plan GPA of at least 3.00 with no grade lower than a C in any course on the degree plan,
3. must have completed or be registered for all remaining degree plan course work.

A final comprehensive exam is not required for non-thesis option students.

---

**Program:** MNL [Galv] 3+2

**Campus:** Galveston

**College:** Galveston Campus

**Degree:** Master of Maritime Admin & Log

**Level:** Graduate

**Major:** Maritime Admin & Logistics

**Department:** Maritime Administration

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**Met Credits**

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**Courses**

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<td>Unused:</td>
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https://compass-ssb.tamu.edu/pis/PROD/bwckcapp.P_VerifyDispEvalViewOption

9/18/2015
This is NOT an official evaluation.

Area: Courses for Degree Plan GPR - Not Met
Description: A minimum degree plan GPR of 3.000 is required. Courses with grades of D, F or U are not acceptable for degree plan credit and must be better or Satisfactory (S).
Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Courses

No A. No Approved Degree Plan

201532 MARA 627 MKTG TRANS SERVICES

201532 MARA 636 MRGL DECISION MAKING

Total Credits and GPA

Area: Supporting Coursework - Directed electives

Choose 15 credit hours from the following graduate level MMAL elective courses: MARA 604, MARA 616, MARA 640, MARA 650, MARA 652, MARA 658, MARA 660, MARA 670, MARA 672, or MARS 620, MARS 640, MARS 660, MARS 675, MARA 676

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Area: Courses Not Applied - Met
Description: See Graduate Committee Chair or Graduate Advisor for acceptable changes to degree plan coursework.
Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Courses

Yes A. Additional Unused Courses

Total Credits and GPA

unofficial evaluation

Area: Graded Degree Plan Courses - Not Met
Description: A grade of C or better is required in all courses listed.
Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Courses

No A. No Approved Degree Plan

Total Credits and GPA

unofficial evaluation

Area: S/U Degree Plan Courses - Met
Description: A grade of S is required in all courses listed.
Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Courses

Yes A. No S/U Courses on Degree Plan

Total Credits and GPA

unofficial evaluation

E-mail Julieanna R. Cardoso

Back to Display Options
# Texas A & M Galveston
## Maritime Administration - Five Year Program Thesis Option

### Name:

### UIN:

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### Comments:

1. Students may satisfy the 9 credit hour life and physical science requirement through any combination of one, three or four credit hour courses.
2. The 6 hours communications electives requirement can be satisfied at TAMUG using COMM 203, ENGL 104 or ENGL 203.

---

Legend:
- T - Credit by Transfer
- CR - Credit by Examination
- Q - Q-Drop
- R - Registered in Current Semester

* - Courses requiring a grade of "C" or better
** - Writing Intensive if Section 980 course

(Revised: 8/23/2015)
Texas A&M University
Request for a Change in Curriculum
Undergraduate • Graduate • Professional

1. Program request type:
   □ Undergraduate  ✔ Graduate  □ First Professional (e.g., DVM, J.D., M.D., etc.)
   ✔ Degree Program  □ Minor  □ Certificate

2. Request change for:
   Program Designation and Name
   (e.g., B.A. in History, Minor in History, Certificate in European Union):
   Marine Sciences
   Master of Marine Resources Management

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

4. Brief description of change:
   All MARM students will be required to take a new quantitative methods course, MARS 603, and MARS 681 seminar. There have been some shifts in required and elective courses. The proposed changes will also require the non-thesis option MARM students to complete a Technical Paper and pass a final examination. The preparation of the paper will be guided in a new course, MARS 693, and the credit hours (variable 1-3) will count towards their degree. Thesis option students will have increased flexibility in choosing coursework and an increase from a maximum of 8 to 12 credit hours of MARS 691 research hours.

5. Rationale for change:
   These changes were driven primarily by the results of an Academic Program Review (APR) which was completed in early July of 2015. The external APR reviewers identified several action items that they believed would improve the program, and that found agreement with MARM related faculty. The program alterations address several of the action items outlined by the external reviewers, and were discussed and agreed upon by a committee of MARS faculty members that are close to or involved with the MARM program.

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?
      http://www.thecb.state.tx.us/index.cfm?objectid=A01F7FCA-9A92-4F11-2756A1D3BBF701D60
      □ 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:

Kyoung Park
Department Head or Program Chair (Type Name & Sign) 9/18/15
Date

Dean of College
10/15/15
Date

Chair, College Review Committee
10/15/15
Date

Chair, GC or UCC
11-5-15
Date

Questions regarding this form should be directed to Curricular Services at 845-8201 or sandra.wall@tamu.edu.
Curricular Services – 04/14
The Master of Marine Resources Management (MARM) degree provides students with a broad understanding of coastal and ocean policy and management. The demand for graduates from this program in industry, government, academia and non-governmental organizations (NGO's) has never been stronger. Federal agencies employing graduates include the U.S. Coast Guard, the U.S. Army Corps of Engineers, and the Environmental Protection Agency. State agencies include the Texas General Land Office and the Texas Commission on Environmental Quality. Industries employing graduates include oil and natural gas, environmental consulting companies, ports, and tourism. These organizations have identified the need for a degree which focuses on national and international ocean resource law and policy; coastal zone management; physical and geochemical marine resources management strategies; and fisheries management. This degree program views marine natural resources management and policy development from both an ecological and policy perspective.

The degree may be viewed as a degree comparable to an MBA as an alternative terminal degree for people working in marine/ocean/coastal organizations. In addition, the degree program may address the needs of some public school science teachers seeking a degree outside the field of education.

Professional Track (Non-thesis Option)

The 36-hour professional track curriculum is structured with 24 hours of required courses and 12 hours of optional elective courses. The required courses include a 1 hour seminar to be taken in the student's first year, 8 hours of management, 3 hours of Geographic Information Systems (GIS), 6 hours of resource economics and statistical methods, and 6 hours of law/policy courses. The student in the professional track will choose electives for the remaining 12 credit hours. Additional flexibility to replace required courses with courses targeted to their area of research is available to professional track students upon recommendation and approval by their committee and the department. Students in the professional track are not allowed to enroll in 691 (Research) for any reason and 691 may not be used for credit toward a professional track MARM degree.

A technical paper prepared on a topic relevant to Marine Resources Management is required for professional track students to complete the MARM degree. The technical paper will be developed under the guidance of the student's advisory committee. Professional track students may count up to 3 hours of 693 (Professional Studies) on their degree plan as work toward their technical paper requirement.

The professional track students must pass a final examination with their advisory committee that addresses the technical paper and prior coursework. The final examination must be by dates announced each semester by the Office of Graduate and Professional Studies. A request to hold and announce the final examination must be submitted to the Office of Graduate and Professional Studies a minimum of 10 working days in advance of the scheduled date for the examination.

Professional track (non-thesis option) Curriculum in Master of Marine Resources Management

Required Courses (24 hours required)

- MARS 681 Seminar
- MARS 625 GIS Based Modeling for Coastal Resources
- MARS 603 Quantitative Methods for Resource Management
- MARS 635 Environmental Impact Statements and NRDA
- MARS 676 Environmental Policy
- MARA 604 Marine Natural Resource Economics
- MARS 675 Environmental Management Strategies for Scientists
- MARS 680 Integrative Analyses in Marine Resources
- PLAN 641 Problems of Environmental Planning Administration
Master's in Marine Resource Management Program Curriculum Changes

The following summarizes and describes changes to the Marine Resource Management (MARM) program curriculum and requirements (see original, revised, and strike-through versions of the MARM catalog entry). These changes were driven primarily by the results of an Academic Program Review (APR) which was completed in early July of 2015. The external APR reviewers identified several action items that they believed would improve the program, and that found agreement with MARM related faculty. The program alterations outlined below address several of the action items outlined by the external reviewers, and were discussed and agreed upon by a committee of MARS faculty members that are close to or involved with the MARM program. The proposed MARM program changes fall into three broad categories:

New Requirements for non-thesis (professional) MARM students

The proposed changes will require non-thesis option MARM students to complete a Professional Paper and pass a final examination in order to successfully matriculate. In contrast to a traditional thesis, the professional paper is not intended to be original research, but rather provide an opportunity for MARM students to individually address a policy and/or management topic at an applied level and produce and individual product. The professional paper will be developed under the guidance of the student’s advisory committee, strengthening MARM students’ mentoring and overall involvement with their committee. In addition, non-thesis option MARM students may also count up to 3 hours of 693 (Professional Studies, see new Syllabus and course request) on their degree plan as work toward their professional paper requirement.

Lastly, the proposed changes will now require non-thesis option students to pass a final examination (as requested and filed with OGS). This final examination again adds strength to the role of MARM students’ advisory committee, provides an opportunity for MARM students to present their professional paper, and provides the advisory committee with the ability to assess overall student learning outcomes. The new examination requirement also leverages the individual assessment of student learning outcomes to contribute to larger MARM program data collection for program metrics. Considering that over 80% of MARM students select the non-thesis option, we believe these new requirements greatly strengthen the program and increase both the visibility of the students and the program as a whole.

Changes in Coursework for all MARM students

The proposed changes alter the required coursework for all MARM students (as outlined in the new catalog entry):

- Creates and adds MARS 603 (Quantitative Methods for Resource Management) as a required course (see MARS 603 Syllabus and new course request). This course addresses the lack of a methods/statistics course for all MARM students. No equivalent is currently available at TAMUG.

- Creates and adds MARS 693 (Professional Study; see MARS 693 Syllabus and new course request). This variable credit (1-3) elective course is intended for non-thesis option MARM students to focus on and prepare their newly required Professional Paper under the guidance of their advisory committee chair.
• Requires 1 hour seminar to be taken in the first semester. Seminar content will include talks by MARS/MARM related faculty about their research topics, courses offered, etc. This addition is intended to provide better and increased faculty exposure to MARM students early in their MARM degree tenure to better focus their choice of thesis/non-thesis option and degree planning.
• Shifts PLAN 641 (Problems in Environmental Planning Administration) from an elective course to a required course. This shift diversifies faculty involvement in the MARM program.
• Shifts MARS 615 (Physical and Geochemical Marine Resources), MARB 620 (Marine Biological Resources), and MARS 652 (Sustainable Management of Coastal Margins) from required to elective courses. The addition of MARS 603 and PLAN 641, coupled with an increase in hours of MARS 675 (from 2 to 3) would have led to a large increase in required courses. All three courses will remain acceptable MARM electives.

*Increased flexibility for MARM thesis-option students*

MARM thesis option students will adopt the required coursework outlined above, but will still lack the requirement of the capstone MARM course, MARS 680 (Integrative Analysis of Marine Resources). Previously, thesis-option MARM students were restricted to 6 (or sometimes 8) hours of MARS 691 (Research). The proposed changes increase the allowable hours of MARS 691 to a degree plan maximum of 12, allowing more time and flexibility to conduct research and prepare and defend theses.
Research Track (Thesis Option)

The MARM research track is designed to allow the student to demonstrate research capabilities through developing an independent and thorough investigation of a particular problem of interest. This also prepares the student for further graduate studies.

The 36-hour research track curriculum is structured with 22 hours of the required courses (MARS 680 is not taken by research track students) and 14 hours of optional elective courses of which up to 12 hours may be of 691 courses. Additional flexibility to replace required courses targeted to their area of research is available to research track students upon recommendation and approval by their advisory committees and the department.

No credit hours of 684 (Professional Internship) or 693 (Professional Studies) may be used for the research track MARM degree. A maximum of 12 credit hours of 691 (Research) or 485 and/or 685 (Directed Studies), and up to 3 credit hours of 690 (Theory of Research) or 695 (Frontiers in Research) may be used toward the research track MARM degree. In addition, any combination of 685, 690, 691 and 695 may not exceed 12 credit hours.

An acceptable thesis is required for the MARM degree for students who select the research track program. The finished work must reflect a comprehensive understanding of the pertinent literature and express in clear English, the problem(s) for study, the method, significance and results of the student’s original research. Guidelines for the preparation of the thesis are available in the Thesis Manual which is available on line at http://thesis.tamu.edu.

After successful defense (or exemption from) and approval by the student’s advisory committee and the head of the student’s major department, students must submit their thesis to the Thesis Office. Students must submit their thesis in electronic format as a single PDF file. The PDF file must be uploaded to the Thesis Office website http://thesis.tamu.edu. Additionally, a signed approval page must be brought or mailed to the Thesis Office. Both the PDF file and the signed approval page are required by the deadline day.

Deadline dates for submitting are announced each semester or summer term in the Office of Graduate and Professional Studies Calendar (see Time Limit statement).

Before a student can be “cleared” by the Thesis Office, a processing fee must be paid at Financial Management Services. After commencement, theses are digitally stored and made available through the Texas A&M Libraries.

A thesis that, because of excessive corrections, is deemed unacceptable by the Thesis Office, will be returned to the student’s department head. The manuscript must be resubmitted as a new document, and the entire review process must begin anew. All original submittal deadlines must be met during the resubmittal process in order to graduate that semester.

Ocean and Coastal Resources/Master of Marine Resources Management 3+2 Program

This program allows Ocean and Coastal Resources (OCRE) undergraduate majors to enter the graduate program for a Master of Marine Resources Management at the beginning of their senior year, enabling students to receive their OCRE undergraduate degree (B.S.) and a Master of Marine Resources Management (MARM) graduate degree in five years.

Students admitted to the 5-year degree program will have completed 102 of the 120 hours of course work required to receive a bachelor’s degree. These courses must include the specific prerequisites for a Bachelor of Science degree in Ocean and Coastal Resources, as well as the required Texas A&M University core curriculum courses. See the undergraduate section of this catalog for curriculum and enrollment information.
Master of Marine Resources Management (MARM)

The Master of Marine Resources Management (MARM) degree provides students with a broad understanding of coastal and ocean policy and management. The demand for graduates from this program in industry, government, academia and non-governmental organizations (NGO's) has never been stronger. Federal agencies employing graduates include the U.S. Coast Guard, the U.S. Army Corps of Engineers, and the Environmental Protection Agency. State agencies include the Texas General Land Office and the Texas Commission on Environmental Quality. Industries employing graduates include oil and natural gas, environmental consulting companies, ports, and tourism. These organizations have identified the need for a degree which focuses on national and international ocean resource law and policy; coastal zone management; physical and geochemical marine resources management strategies; and fisheries management. This degree program views marine natural resources management and policy development from both an ecological and policy perspective.

The degree may be viewed as a degree comparable to an MBA as an alternative terminal degree for people working in marine/ocean/coastal organizations. In addition, the degree program may address the needs of some public school science teachers seeking a degree outside the field of education.

Professional (Non-thesis option) Track

A thesis is not required for the Master of Marine Resources Management degree for students who select the non-thesis option program. The 36-hour professional track curriculum is structured with 24 hours of required courses and 12 hours of optional elective courses. The required courses include a 1 hour seminar to be taken in the student's first year, 8 hours of management, 3 hours of Geographic Information Systems (GIS), 6 hours of resource economics and statistical methods, and 6 hours of law/policy courses. The student in the professional track will choose electives for the remaining 12 credit hours. Additional flexibility to replace required courses with courses targeted to their area of research is available to professional track students upon recommendation and approval by their committee and the department. Students pursuing the non-thesis option professional track are not allowed to enroll in 691 (Research) for any reason and 691 may not be used for credit toward a non-thesis option professional track Master of Marine Resources Management degree.

A technical paper prepared on a topic relevant to Marine Resources Management is required for professional track students to complete the MARM degree. The technical paper will be developed under the guidance of the student's advisory committee. Professional track students may count up to 3 hours of 693 (Professional Studies) on their degree plan as work toward their professional paper requirement.

Of the total 36 hours of curriculum, 24 are required courses of study for the non-thesis degree in Masters of Marine Resources Management. The required courses include 6 hours of science, 8 hours of management, 2 hours of Geographic Information Systems (GIS) and 8 hours of law/policy courses. The student in the non-thesis option will choose electives for the remaining 12 credit hours, 3 hours of which will be additional science, and 3 hours of which will be additional law/policy management. The remaining 6 hours can be in an appropriate supporting field, if desired. Additional flexibility to replace required courses with courses targeted to their area of research is available to non-thesis option students upon recommendation and approval by their committee and the department.

The 36-hour non-thesis option curriculum is structured with 24 hours of required courses and 12 hours of optional elective courses, of which three hours are in additional science, three hours are in law/policy management, and six hours are of the student's choice.

The professional track student must pass a final examination with their advisory committee that addresses the technical paper and prior coursework. The final examination must be by dates announced each semester by the Office of Graduate and Professional Studies. A request to hold and announce the final examination must be submitted to the Office of Graduate and Professional Studies a minimum of 10 working days in advance of the scheduled date for the examination.
Professional Track (Non-thesis) Curriculum in Master of Marine Resources Management

Required Courses (24 hours required)

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<td>MARS 643</td>
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<td>Quantitative Methods for Resource Management</td>
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<td>Integrative Analyses in Marine Resources</td>
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<tr>
<td>MARR 652</td>
<td>Sustainable Management of Coastal Margins</td>
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<tr>
<td>PLAN 841</td>
<td>Problems of Environmental Planning Administration</td>
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Research (Thesis Option) Track

The MARM thesis option research track is designed to allow the student to demonstrate research capabilities through developing an independent and thorough investigation of a particular problem of interest. This would also prepare the student for further graduate studies.

The 36-hour research track curriculum is structured with 22 hours of the required courses (MARS 680 is not taken by research track students) and 14 hours of optional elective courses of which up to 12 hours may be of 691 courses. Additional flexibility to replace required courses targeted to their area of research is available to research track students upon recommendation and approval by their advisory committees and the department.

No credit hours of 684 (Professional Internship) or 693 (Professional Studies) may be used for the research track Master of Marine Resources Management degree. A maximum of 12 credit hours of 691 (Research) or 485 and/or 685 (Directed Studies), and up to 3 credit hours of 690 (Theory of Research) or 695 (Frontiers in Research) may be used toward the research track Master of Marine Resources Management degree. In addition, any combination of 685, 690, 691 and 695 may not exceed 12 credit hours.

An acceptable thesis is required for the Master of Marine Resources Management degree for students who select the thesis option research track program. The finished work must reflect a comprehensive understanding of the pertinent literature and express in clear English, the problem(s) for study, the method, significance and results of the student's original research. Guidelines for the preparation of the thesis are available in the Thesis Manual which is available on line at [http://thesis.tamu.edu](http://thesis.tamu.edu).

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A thesis that, because of excessive corrections, is deemed unacceptable by the Thesis Office, will be returned to the student's department head. The manuscript must be resubmitted as a new document, and the entire review process must begin anew. All original submittal deadlines must be met during the resubmittal process in order to graduate that semester.

No credit hours of 684 (Professional Internship) may be used for the thesis option Master of Marine Resources
Management degree. A maximum of 8 credit hours of 685 (Research) or 485 and/or 685 (Directed Studies), and up to 3 credit hours of 690 (Theory of Research) or 695 (Frontiers in Research) may be used toward the thesis option. In addition, any combination of 685, 690, 691 and 695 may not exceed 12 credit hours.

The 36-hour thesis option curriculum is structured with 22 hours of the required courses (MARS 680 is not taken by thesis option students) and 14 hours of optional elective courses of which at least 2 hours are in additional sciences, at least 3 hours are in law/policy/management and up to 6 hours may be of 691 courses. Additional flexibility to replace required courses targeted to their area of research is available to thesis option students upon recommendation and approval by their committees and the department.

**Ocean and Coastal Resources/Master of Marine Resources Management 3+2 Program**

This program allows Ocean and Coastal Resources (OCRE) undergraduate majors to enter the graduate program for a Master of Marine Resources Management at the beginning of their senior year, enabling students to receive their OCRE undergraduate degree (B.S.) and a Master of Marine Resources Management (MARM) graduate degree in five years.

Students admitted to the 5-year degree program will have completed 102 of the 120 hours of course work required to receive a bachelor's degree. These courses must include the specific prerequisites for a Bachelor of Science degree in Ocean and Coastal Resources, as well as the required Texas A&M University core curriculum courses. See the undergraduate section of this catalog for curriculum and enrollment information.
Information for Degree Evaluation
This is NOT an official evaluation.

Program Evaluation
Master of Marine Resources Management - Thesis Option

Time Limits: All requirements for the degree must be completed within seven consecutive years.

Degree Plan: A Graduate Degree Plan of at least 36 hrs must be completed with a minimum GPR of 3.00 and no grade lower than C. At least one hour of 691 (Research) must be included.

Course Limitations: Courses exceeding limits below will not be considered for meeting degree requirements.

1. Only approved courses on the degree plan will be considered for this program.
2. No more than 12 hrs or one-third of the total hours on the degree plan, whichever is greater, may be used. Transfer course work must be completed at an accredited institution with a grade of B or better.
3. No more than 12 hrs taken in a non-degree seeking (60) classification may be used.
4. No more than 12 hrs may be used in any combination of the following categories:
   a. Not more than 6 hrs of 691 (Research) may be used.
   b. Not more than 8 hrs of 695 (Directed Studies) may be used.
   c. Not more than 3 hrs of 690 (Theory of Research) may be used.
   d. Not more than 3 hrs of 695 (Directed Research) may be used.
5. No more than 2hrs of 681 (Seminar) may be used.
6. No more than 9 hrs of advanced undergraduate courses (300-499) may be used.
7. No correspondence study may be used.
8. No credit hours of extension course work may be used.
9. No credit hours of 691 or 695 may be used.
10. No credit hours of 683 or 693 may be used.

Advisory Committee: The Advisory Committee consists of at least three members of the Graduate Faculty, one of which must be from outside the student's major department.

Residence Requirement: During one semester or 2 consecutive 5-week summer terms, 9 hrs of resident credit must be completed.

Thesis Defense: The thesis defense may be written and/or oral. The defense may be waived for students with a 3.500 degree plan GPR and permission of the Advisory Committee, Department Head and the Office of Graduate Studies. The request to hold and announce the defense must be submitted to the Office of Graduate Studies a minimum of 10 working days in advance of the scheduled date.

To be eligible to hold the defense, the student:
1. must have a graduate GPA of at least 3.000 (listed as "Program GPA" below),
2. must have a Degree Plan GPA of at least 3.000 with no grade lower than a C in any course on the degree plan,
3. must have an approved research proposal,
4. must have completed or be registered for all remaining degree plan course work,
5. must be registered in the university,
6. must have the thesis in final form and ready for distribution to all committee members,

Thesis: The final version of the thesis must be cleared by the Office of Graduate Studies no later than one year after the defense or within the seven year time limit, whichever is first.

Program:
MMR (GeW) Thesis option

Campus:
Galveston

College:
Galveston Campus

Degree:
Master of Marine Res. Mgmt.

Level:
Graduate

Majors:
Marine Resources Management

Departments:
Marine Science

Catalog Term:
Evaluation Term:
Expected Graduation Date:
Fall 2015 - Galveston
Fall 2015 - Galveston
Sept 23, 2015

Request Number:
Results as of:
Minors:
Concentrations:
293

Met Credits Courses
Required Used Required Used
Total Required:
Yes 0.00 0.00
Program GPA:
No 3.00 .00
Overall GPA:
Yes .00 .00

Other Course Information
Transfer:

This is NOT an official evaluation.

Area:
Courses for Degree Plan GPR - Not Met

Description:
A minimum degree plan GPR of 3.000 is required. Courses with grades of D, F or U are not acceptable for degree plan credit and must be repeated for a grade of C.
unofficial evaluation

Area: Courses Not Applied - Met
Description: See Graduate Committee Chair or Graduate Advisor for acceptable changes to degree plan coursework.

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

Total Credits and GPA 0.000 .00

unofficial evaluation

Area: Graded Degree Plan Courses - Not Met
Description: A grade of C or better is required in all courses listed.

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

Total Credits and GPA 0.000 .00

unofficial evaluation

Area: S/U Degree Plan Courses - Not Met
Description: A grade of S is required in all courses listed.

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

Total Credits and GPA 0.000 .00

unofficial evaluation

Back to Display Options
Program Evaluation

Master of Marine Resources Management

Time Limits: All requirements for the degree must be completed within seven consecutive years.

Degree Plan: A Graduate Degree Plan of at least 36 hrs must be completed with a minimum GPR of 3.000 and no grade lower than C.

Course Limitations (non-thesis option): Courses exceeding limits below will not be considered for meeting degree requirements.

1. Only approved courses on the degree plan will be considered for this program.
2. No more than 12 hrs or one-third of the total hours on the degree plan, whichever is greater, may be used. Transfer course work must be completed at an accredited institution with a grade of B or better.
3. No more than 12 hrs taken in a non-degree seeking (GG) classification may be used.
4. No more than 25 percent of the total degree plan hours may be used in any combination of the following categories:
   a. Not more than 4 hrs 694 (Professional Internship) may be used.
   b. Not more than 9 hrs of 685 (Directed Studies) may be used.
   c. Not more than 3 hrs of 690 (Theory of Research) may be used.
   d. Not more than 3 hrs of 699 (Trends in Research) may be used.
5. No more than 2 hrs of 681 (Seminar) may be used.
6. No more than 9 hrs of advanced undergraduate courses (300-499) may be used.
7. No correspondence study may be used.
8. No credit hours of extension course work may be used.
9. No credit hours of FRBN 601 or GRMN 603 may be used.
10. No credit hours of 691 (Research) may be used.

Advisory Committee: The Advisory Committee consists of at least three members of the Graduate Faculty, one of which must be from outside the student’s major department.

Final Examination Requirement: During one semester or 2 consecutive 5-week summer terms, 9 hrs of resident credit must be completed.

To be eligible for the defense, the student:
1. must have a graduate GPR of at least 3.000 (listed as “Program GPA” below),
2. must have a Degree Plan GPR of at least 3.000 with no grade lower than a C in any course on the degree plan,
3. must have completed or be registered for all remaining degree plan course work.

Program: MMR [Galv] | Catalog Term: Fall 2015 - Galveston
Campus: Galveston | Evaluation Term: Fall 2015 - Galveston
College: Galveston Campus | Expected Graduation Date: Fall 2015 - Galveston
Degree: Master of Marine Res. Mgmt. | Request Number: 292
Level: Graduate | Results as of: Sep 23, 2015
Majors: Marine Resources Management | Minors:
Departments: Marine Science | Concentrations:

<table>
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<tr>
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<td>Yes</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tbody>
</table>

This is NOT an official evaluation.

Area: Courses for Degree Plan GPR - Not Met
Description: A minimum degree plan GPR of 3.000 is required. Courses with grades of D, F or U are not acceptable for degree plan credit and must be repeated for a grade of C or better or Satisfactory (S).

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

<table>
<thead>
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<th>No</th>
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Total Credits and GPA: 0.000 0.00
unofficial evaluation

Area: Courses Not Applied - Met
Description See Graduate Committee Chair or Graduate Advisor for acceptable changes to degree plan coursework.

<table>
<thead>
<tr>
<th>Met</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>Additional Unused Courses</td>
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Total Credits and GPA 0.000 .00

unofficial evaluation

Area: Graded Degree Plan Courses - Not Met
Description A grade of C or better is required in all courses listed.

<table>
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<th>Credits</th>
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<tr>
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Total Credits and GPA 0.000 .00

unofficial evaluation

Area: S/U Degree Plan Courses - Met
Description A grade of S is required in all courses listed.

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<thead>
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</table>

Total Credits and GPA 0.000 .00

unofficial evaluation

Back to Display Options

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

Ocean and Coastal Resources and Marine Resources Management

4. Brief description of change:  
Removal of ENGL 210 and 2 free elective credits, replaced by BIOL 111 and an introductory seminar with first year experience, MARS 101. Other housekeeping necessitated by changes in coursework by other departments. Changes also to the MARM curriculum and this 3+2 program requirements needed to reflect those changes.

5. Rationale for change:  
ENGL 210 is dropped leaving 6 credit hours of communications. BIOL 111 is included as a prerequisite for BIOL 112; our majors no longer have a waiver. The introductory MARS 101 adds a first year experience in the first semester with a cruise as part of the course. Geology split the lecture and lab into GEOL 101 (3cr) and GEOL 102 (1cr). The 2 contact hours for OCNG 252 lab do not give enough time for some field experiences in several lab sessions, so an intro marine science lab, MARS 252 (0-3) is proposed. For the graduate portion MARS 615 and MARB 620 are no longer required, and have been replaced with MARS 603 Quantitative Methods in Resource Management and PLAN 641 Problems in Environmental Planning Administration, and a seminar, MARS 681, is required, for a total of 24 hours of required MARM coursework. An additional 12 hours of electives in MARM bring the total graduate credits to 36. No other changes were made to the 3+2 plan.

6. Use the checkboxes below to make sure that all information is included.  
☐ Yes ☐ No

a. Proposed curriculum attached.

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=A0F9F7FA-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:  

Kuehn, P. H.  
Dean  
10/15/15  
Date

Dean of College

10/15/15  
Date

Chair, GC or UCC

11-5-15  
Date

Questions regarding this form should be directed to Curricular Services at 845-9201 or sandra.williams@tamu.edu.
Curricular Services – 04/14
5-Year Curriculum: Ocean and Coastal Resources (OCRE) and Master of Marine Resources Management (MARM)

This program allows Ocean and Coastal Resources (OCRE) majors to enter the graduate program for a Master of Marine Resources Management at the beginning of their senior year, enabling students to receive their OCRE undergraduate degree (B.S.) and a Master of Marine Resources Management (MARM) graduate degree in five years.

Students admitted to the 5-year degree program will have completed 102 of the 120 hours of course work required to receive a bachelor's degree. These courses must include the specific prerequisites for a Bachelor of Science degree in Ocean and Coastal Resources, as well as the required Texas A&M University core curriculum courses.

Application to the 5-Year Program

Ocean and Coastal Resources majors who have at least a 3.25 GPA and who have taken all of their prerequisite courses and otherwise completed 101 or 102 hours by the fall of their fourth year will be eligible to apply for the 5-year program during their junior year. Applicants to the 5-year program will submit the same materials (including GRE scores) as other MARM applicants, and those whose records are judged to be competitive by the mid-January deadline will be admitted. Admission criteria will be the same as for the other MARM students.

Admitted students will be enrolled in Marine Resources Management graduate courses with an undergraduate classification (U4) during the fall of their fourth year. They will then be reclassified as degree-seeking master's students (G7) upon completing 120 credit hours. This will normally occur at the beginning of the fall semester of the fifth year. Students will be required to complete the same 2-year, 36-hour curriculum as other students admitted to the MARM non-thesis program. This curriculum combines nine core courses (24 credit hours) in resources management, policy, and economics with 12 credit hours of electives (see MARM curriculum). At least one elective must be a science elective and at least one must be additional law, policy, or management courses.

If students are interested in the MARM thesis option, then there is additional flexibility to replace required courses with up to six hours of 691 (research) courses and electives chosen with the approval of their thesis advisor and committee. To comply with the course and work requirements of the thesis option, this program may extend beyond the 5-year window. For specific requirements to comply with the thesis option curriculum, students are asked to consult the MARM section of the TAMUG catalog.

Students who choose not to finish the MARM degree after being admitted to the 5-year program may exit the program at any time. Completed MARM courses will be applied to their bachelor's degree in Ocean and Coastal Resources, as appropriate. Failure to complete the MARM program will in no way impede their ability to attain a bachelor's degree in Ocean and Coastal Resources when the requirements for that degree are completed.

Those who pursue the 5-year program will receive both degrees upon the completion of the 5-year program. Students will not graduate with a bachelor's degree in year four, but rather will earn both their Bachelor of Science and the Master of Marine Resources Management degrees at the end of year five.

Advising

Advising for the 5-year program is a coordinated effort by the Department of Marine Sciences undergraduate and graduate advisors and by the Office of Graduate Studies. Advising will help ensure that interested students have satisfied the prerequisite course requirements for the bachelor's degree so that they may enter the 5-year program. OCRE students can speak to Dr. Melanie Lesko at Lesko.m@tamug.edu or phone 409.740.4517. The MARM advisor is Dr. Frederick Schlemmer at Schlemme.f@tamue.edu or phone 409.740.4518.

FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>(Tb-Pr)</th>
<th>Cr</th>
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<td>ENGL 104</td>
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<td>GEOL 101</td>
<td>(3-4)</td>
<td>4</td>
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<tr>
<td>MATH</td>
<td>(3-2)</td>
<td></td>
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<tr>
<td>POLS 206</td>
<td>(3-0)</td>
<td>3</td>
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<tr>
<td>Elective in American History</td>
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<td>Total Hours</td>
<td>16 or 17</td>
<td>15 or 16</td>
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MATH 101: ECONOMICS MATTERS (4-3) 4

MATH 101: ECONOMICS MATTERS (1-0) 1
<table>
<thead>
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<th>Rationale</th>
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<td><strong>Freshman Year</strong></td>
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<td><strong>Core</strong></td>
<td><strong>Rationale</strong></td>
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<td>Fall</td>
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<td>biod 111</td>
<td>Introductory Biology I</td>
<td>(4-0)</td>
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<td>engl 104</td>
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<td>math requirement</td>
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<td>geol 101</td>
<td>Principals of Geology</td>
<td>(3-0)</td>
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<td>geol 102</td>
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<td>(0-2)</td>
<td>1 Sci</td>
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<td>mars 101</td>
<td>Marine Science Matters**</td>
<td>(1-0)</td>
<td>1</td>
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<td></td>
<td>16</td>
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<tr>
<td>Spring</td>
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<tr>
<td>biod 112</td>
<td>Introductory Biology II</td>
<td>(3-3)</td>
<td>4 Sci</td>
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<tr>
<td>pols 207</td>
<td>State and Local Government</td>
<td>(3-0)</td>
<td>3 Poles</td>
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<td>math requirement</td>
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<td>4 Math</td>
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<td>Oceanography**</td>
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<td>mars 252</td>
<td>Intro Marine Science Laboratory**</td>
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<td>Marine Geography**</td>
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<td><strong>Total Hours</strong></td>
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<td><strong>Sophomore Year</strong></td>
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<td>Fall</td>
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<td>chem 111</td>
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<td>Creative Arts core elective</td>
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<td></td>
<td>Coastal and Ocean Resources**</td>
<td>(3-0)</td>
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<td></td>
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<td>mars 281</td>
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<td>chem 102</td>
<td>Fundamentals of Chemistry II</td>
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<td>chem 112</td>
<td>Fund. Of Chemistry Laboratory II</td>
<td>(0-3)</td>
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<td>L&amp;P &amp; C elec</td>
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<td>mara 363</td>
<td>The Management Process</td>
<td>(3-0)</td>
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<td>Principles of Economics</td>
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<tr>
<td>pols 206</td>
<td>American National Government</td>
<td>(3-0)</td>
<td>3 Poles</td>
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<td><strong>Junior Year</strong></td>
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<tr>
<td>mars 350</td>
<td>Advanced Computer Applications**</td>
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<td>ocng 420</td>
<td>Biological Oceanography**</td>
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<td>mars 425</td>
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<td>and mars 426</td>
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<tr>
<td>or marb 430</td>
<td>Coastal Plant Ecology (3-3) credit 4**</td>
<td></td>
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<tr>
<td>pole 247</td>
<td>Politics of Energy and the Environment</td>
<td>(3-0)</td>
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or mars 432 Peak Oil, Global Warming and Resource Scarcity
hist History Core Requirement (3-0) 3 3 Hist
Total Hours 15

Spring
mars 310 Field Methods in Marine ** (1-6) 3 Writing Intensive Satisfied
stat 303 Statistical Methods (2-2) 3 Am Hist Core Satisfied, core complete
golden eagle requirement ** (3-0) 3 change from 485
hist History Core Requirement (3-0) 3 3 Hist
mars 451 Research in Marine Sciences** (0-3) 1
mars 481 Seminar** (1-0) 1
Total Hours 14

Fall
mars 625 GIS Use in Coastal Resources (2-2) 3 GIS reqmt for both OCRE and MARM
mars 676 Marine Policy (3-0) 3
elective 3
Professional elective** (3-0) 3
Total Hours 12

Spring
mars 604 Marine Natural Resource Economics (3-0) 3 economics reqmt for both OCRE and MARM
mars 675 Environmental Mgmt Strategies for Scientists (3-0) 3
mars 603 Quantitative Methods for Resource Mgmt (3-0) 3 new MARM reqmt
Professional elective** (3-0) 3
Total Hours 12

Fall
mars 635 Environmental Impact Statements and NRDA (3-0) 3 new MARM reqmt
Professional elective** (3-0) 3 new MARM reqmt
mars 681 Seminar (1-0) 1 also fulfills a professional elective for ocre
plan 641 Environmental Planning Administration (3-0) 3
marm elective 3
Total Hours 13

Spring
mars 680 Integrative Analyses in Marine Resources (2-0) 2 also fulfills a professional elective for ocre
marm elective 3
marm elective 3
marm elective 3
Total Hours 11

Total Curriculum Hrs. 144
*Selected from mars 430, 431
**counts in major GPR 6
150
Spring Semester
BIOL 112
MARS 210
MATH
OCNG 251
MARS489 252
POLS 207

Introductory Biology II *
Marine Geography
Mathematics Requirement **
Oceanography †
Oceanography †
State and Local Government

Total Hours 17

SOPHOMORE YEAR
Fall Semester
CHEM 101
CHEM 111
COMM 203
MARS 280
MARS 281
PHYS 218
or PHYS 201
Creative Arts Elective

Fundamentals of Chemistry I.
Fundamentals of Chemistry Laboratory I
Public Speaking
Coastal and Ocean Resources †††
Sophomore Seminar in MARS †
Mechanics
College Physics

Total Hours 18

Spring Semester
CHEM 102
CHEM 112
ECON 202
MARA 363
Polisci 261

Fundamentals of Chemistry II
Fundamentals of Chemistry Laboratory II
Principles of Economics
The Management Process
Elective in American History
Elective in Language, Philosophy and Culture

Total Hours 16

JUNIOR YEAR
Fall Semester
MARS 350
MARS 425
MARS 426
or MARS 430

Advanced Computer Applications †
Coastal Wetlands Management (3-0) Credit 3 †
Coastal Wetlands Delineation Laboratory (0-3) Credit 1 †
Coastal Plant Ecology (3-3) Credit 4 †
Seminar †
Introduction to Biological Oceanography †
Politics of Energy and the Environment
Peak Oil, Global Warming and Resource Scarcity

Total Hours 23

Spring Semester
ENGL 210
MARS 310
MARS 430
or MARS 431

Technical and Business Writing
Field Methods in Marine Sciences †††
Geological Oceanography - Plate Tectonics †††

Total Hours 18

SENIOR YEAR OCRE and FIRST YEAR OF MARM
Fall Semester
MARS 615
MARS 625
MARS 676
Professional Elective ‡

Physical and Geochemical Marine Resources †
GIS Use in Coastal Resources
Environmental Policy

Total Hours 11

11
### Spring Semester
- MARA 604: Marine Natural Resource Economics (3-0) 3
- MARB 620: Marine Biological Resources (3-0) 3
- MARS 675: Environmental Management Strategies for Scientists (2-0) 2
- General Elective ‡

**Total Hours**: 12

### SECOND YEAR OF MARM
#### Fall Semester
- MARS 635: Environmental Impact Statements and Natural Resource Damage Assessment (3-0) 3
- Professional Elective ‡

**Total Hours**: 6

#### Spring Semester
- MARS 652: Sustainable Management of Coastal Margins (3-0) 3
- MARS 680: Integrative Analyses in Marine Resources (2-0) 2
- MARS 654: Professional Elective ‡

**Total Hours**: 11

**Total Curriculum Hours for Combined OCRE/MARM 5-Year Program**: 144

### Notes for OCRE/MARM 3+2 Program
- All electives must be chosen in consultation with, and approved by, the student's academic advisor. Unless courses are specifically listed, see University Core Curriculum at [http://core.tamu.edu/](http://core.tamu.edu/) for a listing of course options for Communication, Mathematics; Life and Physical Sciences; Language, Philosophy and Culture; Creative Arts; American History; Government and Political Science; and Social and Behavioral Sciences. The 6-hour University Core Curriculum requirement for International and Cultural Diversity may be met with courses used to satisfy other degree requirements.
- As indicated above, students in the 5-year program will take 21 fewer undergraduate credit hours than other OCRE students. Graduate courses taken in the fourth and fifth year will be counted as credit towards the OCRE degree.
- Credit by Exam credit will be awarded for ECON 203 and MARS 325 upon completion of examination in MARA 604 and MARS 625 respectively.
- Course adjustments will be allowed for 6 hours of undergraduate elective credit to use 6 hours of MARM elective credits.

---
**‡**: BIOI 414 is a prerequisite for BIOI 112.
**‡‡**: Depending upon the math sequence selected, the number of credit hours will vary by 1 or 2 credits. The Math Requirement may be met by the following:
1. Either MATH 151 (4 credits), which is preferred for a science-oriented career path, or MATH 142 (3 credits) may be taken. Credit will not be given for both MATH 151 and MATH 142.
2. Either MATH 152 (4 credits), MATH 141 or MATH 150 may be taken.
†Indicates required courses in the Ocean and Coastal Resources major. These courses will be used to compute the major GPR. Also, if any upper level MARS or DCNG elective courses are taken, they will be used in the major GPR.
†Recommended professional electives are:

Note: If you choose to take CHEM 316, then you must take CHEM 318 concurrently.
§: Field Experience may also be met with MARB 300 plus one credit hour of a field oriented lab course.
* The total undergraduate hours prior to entering the 5-year program is 101 or 102, depending upon your math selection. After starting the 5-year program, additional undergraduate hours will be taken for a total of 128 undergraduate hours. The total graduate credit hours is 36. Substituting 6 hours of MARM electives for one free and one professional elective and applying 6 hours of credit by exam results in a total of 150 hours. The total hours may be increased if the student is required to take remedial math, remedial English, foreign language or international and diverse cultures courses.
V: Students may choose to take MARS 460 and gain credit for MARS 310 and two hours of professional electives.
VV: Designated writing intensive course.

+++ - The 36-hour non-thesis option curriculum is structured with 24 hours of required courses and 12 hours of optional elective courses, of which three hours are in additional science, three hours are in law, policy, management, and six hours are of the student's choice. See MARM curriculum pages of the catalog for additional requirements for the thesis option curriculum.
**Detail Requirements**

Information for Degree Evaluation

This is NOT an official evaluation.

### Program Evaluation

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

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

<table>
<thead>
<tr>
<th>Program</th>
<th>[GV] 85 OCRE - 3+2 Program</th>
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</thead>
<tbody>
<tr>
<td>Catalog Term</td>
<td>Fall 2015 - Galveston</td>
</tr>
<tr>
<td>Evaluation Term</td>
<td>Fall 2015 - Galveston</td>
</tr>
<tr>
<td>Expected Graduation Date</td>
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<tr>
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<td>Marine Science</td>
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<tr>
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<td>Overall GPA :</td>
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**Other Course Information**

Transfer : 0.000 0

This is NOT an official evaluation.

---

**Area Major Coursework (36,000 credits) - Not Met**

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<th>Required Courses</th>
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<tr>
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<td>No AND</td>
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<td>MARS 281</td>
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<tr>
<td>No AND</td>
<td>C.</td>
<td>MARS 310</td>
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<td>No AND</td>
<td>D.</td>
<td>MARS 340</td>
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<td>No AND</td>
<td>E.</td>
<td>MARS 425</td>
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<td>No AND</td>
<td>F.</td>
<td>MARS 430</td>
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<tr>
<td>No AND</td>
<td>G.</td>
<td>DCNG 251</td>
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<td>H.</td>
<td>DCNG 252</td>
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<td>No AND</td>
<td>I.</td>
<td>DCNG 420</td>
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<tr>
<td>No AND</td>
<td>J.</td>
<td>Ecology Reqmt hrs</td>
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<tr>
<td></td>
<td></td>
<td>Select from MARS 425, 426 or MARB 430.</td>
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<tr>
<td>No AND</td>
<td>K.</td>
<td>MARS 485</td>
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<tr>
<td>No AND</td>
<td>L.</td>
<td>MARS 350</td>
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Total Credits and GPA 0.000 .00

unofficial evaluation

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**Area Supporting Coursework (15,000 credits) - Not Met**

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<th>Term Subject Course Title Attribute Credits Grade Source</th>
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<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>ECON 202</td>
<td></td>
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<td>No AND</td>
<td>B.</td>
<td>Economics Reqmt 3 IR's</td>
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unofficial evaluation

Area Professional Electives (12.000 credits) - Not Met

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<th>Met Condition Rule Subject Attribute Low High Required</th>
<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
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<tbody>
<tr>
<td>No A. Professional Electives 12 hrs.</td>
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<tr>
<td>No AND C. MATH 313</td>
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Total Credits and GPA 0.000 .00

unofficial evaluation

Area Communication (.000 credits) - Not Met

<table>
<thead>
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<th>Required Courses</th>
<th>Term Subject Course Title Attribute Credits Grade Source</th>
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<tbody>
<tr>
<td>No A. ENGL 104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No AND B. ENGL 210</td>
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<tr>
<td>No AND C. COMM 203</td>
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Total Credits and GPA 0.000 .00

unofficial evaluation

Area Mathematics (10.000 credits) - Not Met

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<tbody>
<tr>
<td>No A. MATH 151</td>
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<td></td>
</tr>
<tr>
<td>No AND B. Math Rqnt 3hrs</td>
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<td>No AND C. STAT 303</td>
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Total Credits and GPA 0.000 .00

unofficial evaluation

Area Life and Physical Sciences (20.000 credits) - Not Met

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<td>No A. Physics Rqnt 4hrs</td>
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<tr>
<td>No AND B. BIOL 112</td>
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<td>No AND C. CHEM 101</td>
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<td>No AND D. CHEM 111</td>
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<td>No AND F. CHEM 102</td>
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<td></td>
</tr>
<tr>
<td>No AND F. CHEM 112</td>
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<tr>
<td>No AND G. GEO1 101</td>
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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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<th>No</th>
<th>A.</th>
<th>Lang, Phil, Culture Rqmt 3hrs</th>
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<tr>
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<td>Select any course with the Language, Philosophy and Culture attribute [KLPC].</td>
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Total Credits and GPA: 0.000 0.00

unofficial evaluation

Area Creative Arts (3.000 credits) - Not Met

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<td>Select three hours from any course with the Creative Arts attribute [KCRA].</td>
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Total Credits and GPA: 0.000 0.00

unofficial evaluation

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

| No | A. | MARS 210 |

Total Credits and GPA: 0.000 0.00

unofficial evaluation

Area Citizenship (12.000 credits) - Not Met

<table>
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<tr>
<th>No</th>
<th>A.</th>
<th>American History Rqmt 6hrs</th>
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<td>Select 6 hours from any course with the [KHIS] attribute.</td>
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<table>
<thead>
<tr>
<th>No AND</th>
<th>B.</th>
<th>Political Science Rqmt 6hrs</th>
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<tr>
<td></td>
<td></td>
<td>Take POLS 206 and POLS 207.</td>
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Total Credits and GPA: 0.000 0.00

unofficial evaluation

Area General Electives (5.000 credits) - Not Met

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<th>General Electives 5hrs</th>
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<tr>
<td></td>
<td></td>
<td>5 hours of coursework required. See advisor for acceptable courses.</td>
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Total Credits and GPA: 0.000 0.00

unofficial evaluation
Area: Work Not Applied - Met

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

### Met

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<tr>
<th>Condition Rule Subject Attribute</th>
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<th>Required</th>
<th>Required</th>
<th>Term Subject Course Title</th>
<th>Attribute</th>
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<th>Grade</th>
<th>Source</th>
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**unofficial evaluation**

### Area University Writing Requirement - Not Met

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<th>Required</th>
<th>Required</th>
<th>Term Subject Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
<th>Total Credits and GPA</th>
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<tr>
<td>No</td>
<td>A.</td>
<td>Writing Requirement</td>
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<td>Select two courses with the Writing Requirement [UWRT] attribute.</td>
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**unofficial evaluation**

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

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<th>Required</th>
<th>Required</th>
<th>Term Subject Course Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Grade</th>
<th>Source</th>
<th>Total Credits and GPA</th>
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<tbody>
<tr>
<td>No</td>
<td>A.</td>
<td>Int'l &amp; Cultural Diversity</td>
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<td>6 hours required. Select from courses with the International and Cultural Diversity attribute [URCD].</td>
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**unofficial evaluation**

### Area Foreign Language - Not Met

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<th>Term Subject Course Title</th>
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<tr>
<td>No</td>
<td>A.</td>
<td>Foreign Language Rqmt</td>
<td></td>
<td>Complete one of the following: 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>
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<td>0.00 0.00</td>
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**unofficial evaluation**

### Area: GPR-Major - Not Met

**Description:** Must maintain a minimum GPR of 2.000 on all major field of study courses.

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<tr>
<th>Condition Rule Subject Attribute</th>
<th>Low High</th>
<th>Required</th>
<th>Required</th>
<th>Term Subject Course Title</th>
<th>Attribute</th>
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<td>Major GPR</td>
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**unofficial evaluation**

### Area: Residence Requirement - Not Met

**Description:** Student must complete minimum of 36 hours of 300-400 level course work at Texas A&M University, 12 hours must be in field of study.
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<td>AND</td>
<td>B.</td>
<td>Residence</td>
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unofficial evaluation

Back to Display Options

Total Credits and GPA: 0.000 0.00

Print
Information for Degree Evaluation

This is NOT an official evaluation.

Program Evaluation

Master of Marine Resources Management (Non-Thesis Option) (Five Year Program)

Time Limits: All requirements for the degree must be completed within seven consecutive years.

Degree Plan: A Graduate Degree Plan of at least 36 hrs must be completed with a minimum GPA of 3.000 and no grade lower than C.

Course Limitations: Courses exceeding limits below will not be considered for meeting degree requirements.

1. Only approved courses on the degree plan will be considered for this program.
2. No more than 12 hrs or one-third of the total hours on the degree plan, whichever is greater, may be used. Transfer course work must be completed at an accredited institution with a grade of B or better.
3. No more than 12 hrs taken in a non-degree seeking (GS) classification may be used.
4. No more than 25 percent of the total degree plan hours may be used in any combination of the following categories:
   a. Not more than 4 hrs 604 (Professional Internship) may be used.
   b. Not more than 9 hrs of 605 (Directed Studies) may be used.
   c. Not more than 3 hrs of 690 (Theory of Research) may be used.
   d. Not more than 3 hrs of 695 (Frontiers in Research) may be used.
5. No more than 2 hrs of 691 (Seminar) may be used.
6. No more than 9 hrs of advanced undergraduate courses (300-499) may be used.
7. No correspondence study may be used.
8. No credit hours of extension course work may be used.
9. No credit hours of FREN 601 or GERM 603 may be used.
10. No credit hours of 691 (Research) may be used.

Advisory Committee: The Advisory Committee consists of at least three members of the Graduate Faculty, one of which must be from outside the student's major department.

Residence Requirement: During one semester or 2 consecutive 5-week summer terms, 9 hrs of resident credit must be completed.

Final Examination: A final comprehensive examination is not required.

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Catalog Term: Fall 2015 - Galveston
Evaluation Term: Fall 2015 - Galveston
Expected Graduation Date: Sep 29, 2015

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<td>Total Required</td>
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<td>Program GPA</td>
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<tr>
<td>Overall GPA</td>
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Other Course Information:
Transfer: 0.000 | 0

This is NOT an official evaluation.

Area: Courses for Degree Plan GPA - Not Met
Description: A minimum degree plan GPA of 3.000 is required. Courses with grades of D, F or U are not acceptable for degree plan credit and must be repeated for a grade of C or better or Satisfactory (S).

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

No: A. No Approved Degree Plan

Total Credits and GPA: 0.000 .00

unofficial evaluation

Area: Courses Not Applied - Met
unofficial evaluation

Area: Graded Degree Plan Courses - Not Met
Description: A grade of C or better is required in all courses listed.

Not Met

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<th>Subject</th>
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<th>Attribute</th>
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<th>Courses</th>
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<td>Additional Unused Courses</td>
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Total Credits and GPA: 0.000 0.00

unofficial evaluation

Area: S/U Degree Plan Courses - Met
Description: A grade of S is required in all courses listed.

Not Met

<table>
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<th>Required</th>
<th>Term</th>
<th>Subject</th>
<th>Course</th>
<th>Title</th>
<th>Attribute</th>
<th>Credits</th>
<th>Courses</th>
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<tr>
<td>No</td>
<td>A.</td>
<td>No S/U Courses on Degree Plan</td>
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</table>

Total Credits and GPA: 0.000 0.00

unofficial evaluation

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Program Evaluation

Master of Marine Resources Management Five Year Program - Thesis Option

Time Limits: All requirements for the degree must be completed within seven consecutive years.

Degree Plan: A Graduate Degree Plan of at least 36 hrs must be completed with a minimum GPR of 3.000 and no grade lower than C. At least one hour of 691 (Research) must be included.

Course Limitations: Courses exceeding limits below will not be considered for meeting degree requirements.

1. Only approved courses on the degree plan will be considered for this program.
2. No more than 12 hrs or one-third of the total hours on the degree plan, whichever is greater, may be used. Transfer course work must be completed at an accredited institution with a grade of B or better.
3. No more than 12 hrs taken in a non-degree seeking (GR) classification may be used.
4. No more than 12 hrs may be used in any combination of the following categories:
   a. Not more than 8 hrs of 691 (Research) may be used.
   b. Not more than 8 hrs of 688 (Directed Studies) may be used.
   c. Not more than 3 hrs of 690 (Theory of Research) may be used.
   d. Not more than 3 hrs of 695 (Frontiers in Research) may be used.
5. No more than 2 hrs of 681 (Seminar) may be used.
6. No more than 9 hrs of advanced undergraduate courses (300-499) may be used.
7. No correspondence study may be used.
8. No credit hours of extension course work may be used.
9. No credit hours of FREN 601 or GERM 603 may be used.

Advisory Committee: The Advisory Committee consists of at least three members of the Graduate Faculty, one of which must be from outside the student's major department.

Residence Requirement: During one semester or 2 consecutive 5-week summer terms, 9 hrs of resident credit must be completed.

Research Proposal: A thesis proposal approved by the Advisory Committee, Department Head and the Office of Graduate Studies is required.

Thesis Defense: The thesis defense may be written and/or oral. The defense may be waived for students with a 3.500 degree plan GPR and permission of the Advisory Committee, Department Head and the Office of Graduate Studies. The request to hold and announce the defense must be submitted to the Office of Graduate Studies a minimum of 10 working days in advance of the scheduled date.

To be eligible to hold the defense, the student:

1. must have a graduate GPR of at least 3.000 (listed as "Program GPA" below),
2. must have a Degree Plan GPR of at least 3.000 with no grade lower than C in any course on the degree plan,
3. must have an approved research proposal,
4. must have completed or be registered for all remaining degree plan course work,
5. must be registered in the university,
6. must have the thesis in final form and ready for distribution to all committee members.

Thesis: The final version of the thesis must be cleared by the Office of Graduate Studies no later than one year after the defense or within the seven year time limit, whichever is first.

Program: MMR [Ga&T] Syr program
Campus: Galveston
College: Galveston Campus
Degree: Master of Marine Res. Mgmt.
Level: Graduate
Majors: Marine Resources Management
Departments: Marine Science

Catalog Term: Fall 2015 - Galveston
Evaluation Term: Fall 2015
Expected Graduation Date: Sep 29, 2015
Request Number: 13
Results as of: Sep 29, 2015
Minors: Concentrations:

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<th>Met Credits</th>
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<td>Program GPA: No</td>
<td>3.00</td>
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<td>Overall GPA: Yes</td>
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Other Course Information

Transfer: 0.000

This is NOT an official evaluation.
unofficial evaluation

Area: Courses Not Applied - Met
Description: See Graduate Committee Chair or Graduate Advisor for acceptable changes to degree plan coursework.

Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source
Credits Courses
No A. Additional Unused Courses

Total Credits and GPA 0.000 .00

unofficial evaluation

Area: Graded Degree Plan Courses - Not Met
Description: A grade of C or better is required in all courses listed.

Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source
Credits Courses
No A. No Approved Degree Plan

Total Credits and GPA 0.000 .00

unofficial evaluation

Area: S/U Degree Plan Courses - Not Met
Description: A grade of S is required in all courses listed.

Met: Condition Rule Subject Attribute Low High Required Required Term Subject Course Title Attribute Credits Grade Source
Credits Courses
No A. No Approved Degree Plan

Total Credits and GPA 0.000 .00

unofficial evaluation

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