Course Change Request

Date Submitted: 02/09/18 11:28 am

Viewing: MARA 636 : Managerial Decision Making

Last edit: 02/13/18 9:16 am

Changes proposed by: tiaveren

Catalog Pages referencing this course

- RS/MML-MARA/MAAL-GAD: Maritime Administration - 5-year Bachelor of Science/Master of Maritime Administration and Logistics
- RS/MML-MARR/MAAL-GAD: Marine Engineering Technology - 5-year Bachelor of Science/Master of Maritime Admin & Logistics

Faculty Senate Number

Contact(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joan Mileski</td>
<td><a href="mailto:mileski@tamug.edu">mileski@tamug.edu</a></td>
<td>409740978</td>
</tr>
</tbody>
</table>

Rationale for Course

Edit

Other

This course change is made to support online program

Course prefix | MARA  | Course number | 636 |
Department | Maritime Administration |
College/School | Galveston Campus |
Academic Level | Graduate |
Academic Level (alternate) | Undergraduate |
Effective term | 2018-2019 Galveston |

Complete Course Title
Managerial Decision Making

Abbreviated Course Title
MGRL DECISION MAKING

Catalog course description
Construction of mathematical models of business environments; linear programming techniques; planning, analysis and control of operations in complex organizations through mathematical techniques.

Prerequisites and Restrictions
Approval of instructor, graduate status or special approval.

Concurrent Enrollment
No

Should catalog prerequisites / concurrent enrollment be enforced?
No

Crosslistings
No

Crosslisted With

In Workflow
1. MARA Department Head
2. Curricular Services Review
3. GV Committee Preparer GR
4. GV Committee Chair GR
5. GV College Dean GR
6. GC Preparer
7. GC Chair
8. Faculty Senate Preparer
9. Faculty Senate
10. Provost II
11. President
12. Curricular Services
13. Banner

Approval Path
1. 02/11/18 7:43 pm
   Joan Mileski (mileski): Approved for MARA Department Head
2. 02/13/18 9:17 am
   Sandra Williams (sandra-williams): Approved for Curricular Services Review
3. 02/13/18 10:04 am
   Nicole Kinslow (wilkinsn): Approved for GV Committee Preparer GR
4. 02/13/18 10:09 am
   Antonietta Quigg (quigga): Approved for GV Committee Chair GR
5. 02/13/18 10:11 am
   Antonietta Quigg (quigga): Approved for GV College Dean GR
6. 02/16/18 12:54 pm
   Meagan Kelly (meagankelly): Approved for GC Preparer
7. 03/01/18 3:17 pm
   LaRhesa Johnson (lrjohnson): Approved for GC Chair

https://nextcatalog.tamu.edu/courseleaf/approve/
Learning Outcomes

Meets traditional face-to-face learning outcomes.

Describe how learning outcomes are met or provide justification why they are not met.

Learning outcomes in both syllabi are identical.

Hours

Meets traditional face-to-face hours.

Describe how hours are met or provide justification why they are not met.

Work provided to student is equal to 135 hours which is required for 3 hour credit course.

Will this course be taught as a distance education course?

Yes No

I verify that I have reviewed the FAQ for Export Control Basics for Distance Education.

Yes No

Is 100% of this course going to be taught in Texas?

Yes

Will classroom space be needed for this course?

No

This will be a required course or an elective course for the following programs:

<table>
<thead>
<tr>
<th>Required (select program)</th>
<th>Program(s)</th>
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<tbody>
<tr>
<td>(MML-MAAL) Master of Maritime Administration and Logistics in Maritime Administration and Logistics</td>
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</tbody>
</table>

Course Syllabus

Syllabus: Upload syllabus

Upload syllabus: Mara 636 in person.pdf
Letters of support or other documentation: No

Additional information:

Reviewer Comments: Sandra Williams (sandra-williams) (02/06/18 11:36 am): Rollback: You need to attach a syllabus and a non-traditional syllabus (if applicable).

Reported to state: No
Texas A&M University at Galveston  
Course Syllabus  
MARA 636- Managerial Decision Making  
Fall 2017, Department of Maritime Administration

INSTRUCTOR  
Ping Weng, Ph.D.

MEETING TIME AND PLACE (for regular non-online students)  
Wednesday, 06:00 pm - 08:30 pm, CLB 109

INSTRUCTOR INFORMATION  
E-mail: wangpj@tamug.edu  
Office Phone: 409-740-4441  
Office Location: CLB 225  
Office Hours: Tuesday, 6:00 pm - 8:30 pm.  
Web information: Handouts and supplementary materials are available on WebCT.  
Contact students: The instructor will use your on-campus Email address as the primary means of contacting you. Please check your email frequently.

TEXTBOOK  
Course Text  

Other Materials  
Videos and required readings are available at Howdy.

COURSE DESCRIPTION  
Since they began to evolve in the 1940’s, decision support methods known collectively as “operations research” or “management science” or “modeling” for solving business decision problems have increased greatly in popularity and usefulness. Almost all of the largest 500 U.S. companies use such approaches, in order to make their operations more efficient and profitable. Applications have significantly impacted the business functional areas of operations and logistics, finance, marketing and health care. Many significant applications to public policy and not-for-profit decision making have also been documented.

This course is a comprehensive application of the mathematical modeling techniques in a maritime business context. Working in small teams with a faculty advisor, students are required to frame and analyze an issue faced by the Port of Houston in terms of a strategic business perspective. The team develops a) a service-network level understanding of the maritime industry and business model, b) an appropriate analytical framework for addressing the functional concerns in the logistics service network in the Port of Houston, and c) a report of recommendations to the MBA faculty that explains the situation and its strategic analysis.
Fundamental management science modeling techniques emphasizing problem formulation, computer solution, and economic analysis in the operations context. Mathematical modeling techniques covered include decision tree analysis, statistical process control, queuing, simulation, forecasting, and linear programming.

PREREQUISITS
Students need to finish at least one 200-level or above Statistics course. Students who do not meet this requirement need to talk with the instructor before signing in.

COURSE SEQUENCE IN CURRICULUM
This course is an elective course for the MAAL and designed for the first quarter in the second year. It can also be used as an elective for undergraduate students with MARA majors.

COURSE OBJECTIVES/OUTCOMES
This course is to provide students with fundamental knowledge and understanding of how to quantitatively make managerial decisions in maritime-related operations, and to help students be ready to work in an environment where number-based decisions are important.
Specifically, after taking this course, students will be able to:
- Understand why and how to make managerial decisions based on mathematical modeling and analysis
- Understand how complex business problems can be modeled in a quantitative way
- Use spreadsheet software to implement various mathematical models and analyze modeling results
- Apply these modeling approaches appropriately to solve a particular maritime operations problem

HOWDY/eCompus
HOWDY/ELEARNING is TAMUG’s primary Learning Management Software and used for communications, course material, and lessons. Check the site daily. Make use of the online environment and its collaborative features (discussion/bulletin board, course email, etc.) to work with your classmates virtually. Check the course website and your campus email address daily.

Course Management Preparation:
- Make sure you are able to navigate eCompus/Howdy. If you are not already familiar with eCompus, TAMU ITS has an eCompus orientation for Students course at http://itsinfo.tamu.edu/elearning-orientation/
- File types: http://webaccess.tamu.edu/resources/fileTypes.html
- Most compatible browser: Mozilla Firefox 3.x
- Ensure you have the TAMUG Virtual Private Network (VPN) software installed if you are using an offsite computer, which is available at http://www.tamug.edu/computing/vpn/
- Should you experience a technical computer problem, contact the Computer and Information Services (CIS) Helpdesk:
  CLB (Building 3007), Suite 115
CLASS MATERIALS
Ideally, students should bring the lecture notes in their preferred format to class every day. A
notebook computer will be needed in class on several days.

INFORMATION OF MyOMLab
Students should register their accounts at MyOMLab. Homework assignments are supposed
to be completed in MyOMLab. You can refer to the "Student Registration Handoff" for
instructions. Course materials including handoffs and homework assignments are also

CAPSTONE PROJECT AND TEAM FORMATION
In the first week of the semester, students are expected to setup a team with 4 to 6 students. Each
team should select a person in charge of the communication with the faculty. Each team should
only turn in a 15-page single-space project report by December 12th, 8:00pm. Project reports will
be graded on the basis of the "Grading Rubric for the Capstone Project" to be posted separately.

COURSE ASSESSMENTS

Homework Assignments (4@20)
- Homework and/or assignments will be as instructed.
- Homework assignments should be turned in through email to wangp@tamug.edu

Midterm (1@60):
Midterm exam will be given at 6:00pm on October 10th.
Open-book/open-notes policy. No Personal computers can be used during the exam.

Capstone Project Report (1@60):
Project Report will be due by 8:00pm on December 12th.
Open-book/open-notes policy. No Personal computers can be used during the exam.

GRADING
Final letter grade will be based on the total credit, and will not be curved.

\begin{align*}
\text{Homework assignments} & \quad 4@20 \quad 80 \\
\text{Midterm and Capstone report} & \quad 2 \quad 120 \\
\text{Total:} & \quad 200
\end{align*}

Letter Grade: \begin{align*}
A: & \geq 170; \\
B: & 140-169; \\
C: & \text{below 139.}
\end{align*}

AMERICANS WITH DISABILITIES ACT (ADA) POLICY STATEMENT
The Americans with Disabilities Act (ADA) is a federal non-discrimination statute that provides
comprehensive civil rights protection for persons with disabilities. Among other things, this law requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Counseling Office, Selbel Student Center, or call (409)740-4587. For additional information visit: http://www.tamug.edu/counsel/services/dssprocedures.htm.

ACADEMIC INTEGRITY STATEMENT AND POLICY

"An Aggie does not lie, cheat, or steal or tolerate those who do."
http://www.tamug.edu/counsel/services/HonorSystem

TOPICS OUTLINE

Module 1  Modeling Business Processes
Week 1
  5-Sep  Course Introduction
  Lecture 1_Fundamental Decision-Making Models
  Homework #1 is available.
Week 2
  12-Sep  Lecture 2_Queueing Process
Week 3
  19-Sep  Lecture 3_Waiting Line
  Homework #1 is due.
  Homework #2 is available.

Module 2  Process Performance and Control
Week 4
  26-Sep  Lecture 4_Statistical Process Control
  No Class Meeting for non-online students.
Week 5
  3-Oct  Lecture 5_Process Capability Analysis
  Homework #2 is due.
Week 6
  10-Oct  MIDTERM EXAM

Module 3  Managing Customer Demand
Week 7
  17-Oct  Lecture 7_Forecasting I
  Homework #3 is available
Week 8
  24-Oct  Lecture 8_Forecasting II
Week 9
  31-Oct  Lecture 9_Simulation

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<table>
<thead>
<tr>
<th>Module 4</th>
<th>Modeling-Based Managerial Decision Making</th>
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<tbody>
<tr>
<td><strong>Week 10</strong></td>
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</tr>
<tr>
<td>7-Nov</td>
<td>Lecture 10_Service Operations Scheduling</td>
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<tr>
<td></td>
<td>Homework #3 is due.</td>
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<tr>
<td></td>
<td>Homework #4 is available.</td>
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<td><strong>Week 11</strong></td>
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<tr>
<td>14-Nov</td>
<td>Lecture 11_Linear Programming</td>
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<td><strong>Week 12</strong></td>
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<tr>
<td>21-Nov</td>
<td>Lecture 12_Network Design</td>
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<td><strong>Week 13</strong></td>
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<tr>
<td>28-Nov</td>
<td>Lecture 13_Port of Houston Service Network Capston</td>
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<td><strong>Week 14</strong></td>
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<td>5-Dec</td>
<td>Capston Project Review</td>
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<td>Homework #4 is due.</td>
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<td><strong>Week 15</strong></td>
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<tr>
<td>12/12/2017</td>
<td>Capston Project Report is Due.</td>
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<td></td>
<td>NO FINAL EXAM.</td>
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