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

Form Instructions

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

2. Request submitted by (Department or Program Name):  
   Mays Business School Professional MBA Program
   FINC 662 Energy Finance

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

4. Catalog course description (not to exceed 50 words):  
   Analysis of financial aspects of the energy industry from exploration to delivery with emphasis on upstream segment; identifying differences in upstream, midstream, downstream; evaluation of profitability of key financial decisions.

5. Prerequisite(s):

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

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

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

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

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

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

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

MBA - Professional MBA Program

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

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

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

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Approval recommended by:

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

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

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 - 07/14
FINANCE 662
Energy Finance

Spring 2016

PROFESSOR: Shannon Deer, CPA
OFFICE: Wehner 390B
PHONE: 979-575-3851 (feel free to call or text)
E-MAIL: sdeer@mays.tamu.edu
SKYPE: Shannon.deer1

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

Prerequisites: Second year PMBA student

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

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

Required Course Materials

A free eBook version of the text is available at https://library.tamu.edu. Search “energy finance analysis and valuation” and the text should be the first link listed. Select the link and
the book will be available along with a useful table of contents. If you are prompted to login at any point use your net id and password (the same login you use for eCampus).

Additional Resources
Other resources will be provided on eCampus in the resources/texts folder and throughout the course of the semester based on current events, student’s interests, and necessary supplementation.

Laptop
You will be using your laptops or tablets each class. If for any reason you cannot bring a laptop to class you may be able to work with your peers to complete the necessary research.

Groups and Varying Expertise
Many students in this course have a background in energy, some have accounting or finance backgrounds, and others have limited professional exposure to either area. As a result, this is an incredible and unique opportunity for all of you to learn from each other. This course will be designed to foster this type of collaborative learning, as will be outlined below. To accomplish this, students will be assigned in class groups based on their professional experiences. Students will not be expected to complete group work outside of class.

In a typical week, individual work will be completed before class and shared during designated class time with your group to work on assigned cases. These cases are designed to give you real world application to the concepts learned before class.

Group roles: Within your in class groups each of you will assume one of the roles listed below. You do not have to be an expert in one of these areas to volunteer for the role. The goal is for you to use the readings to become an expert in this area and share what you have learned with your peers. If you are already working in one of the areas listed below then the role will be easier for you and might be a natural fit. You will get exposure to all areas expanding your knowledge about the industry, so these roles are not intended to be restrictive. The role you select will be where you will take leadership in your group and especially in your online roles below.

- Operational representative – This individual will provide their group with expertise about acquisition, exploration, drilling, production, transportation, and/or refining. This role may be a natural fit for an engineer, project manager, specialist, sales representative, or for those who work in another capacity in the operations of the energy industry.
- Financial representative 1 – This individual will support their group in financial issues. If you are an accountant or financial analyst within or outside of an energy company this role might be a natural fit for you. It is okay if you do not have energy expertise; your financial expertise will be valuable to your group.
- Financial representative 2 – This representative’s role will be to provide additional support related to the financial aspects of projects along with the other financial
representative. Your groups do not have two individuals currently working in accounting/finance departments. So, this might be a natural fit for project managers with industry expertise who are looking to move into executive positions within an energy company and hoping for more financial exposure.

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

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

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

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

### Appointments
My students are my number one priority. Your success, especially after this class, is incredibly important to me and is the sole reason I chose this line of work. My cell phone number (call or text), Skype information, and email address have all been made available to you. I am happy to schedule remote meetings outside of business hours to meet your scheduling needs (day or night). I can also meet with you before/after our class meetings.
Grading
Assessment will be based on your mastery of the course objectives and based on the following scale:

Individual case preparation/summary  40
  Reserves case 1 (15 points)
  Derivatives (hedging) strategy case 2 (15 points)
  International and other case 3 (10 points)

Individual case analysis/reflection   30
  Reserves case and reflection (10 points)
  Derivatives (hedging) strategy case and reflection (10 points)
  Class reflection assignment 1 (5 points)
  Class reflection assignment 2 (5 points)

Online discussions and responses   25
  (15 points for initial discussion post; 5 points each for 2 required responses)
Upstream company analysis   30
Custom project (5 project proposal; 30 final project)  35
Final case   40

Total  200

Each graded assignment is described below. More details for each assignment will be given on eCampus. All assignments will be submitted electronically on eCampus.

At semester’s end, the total points accumulated by each student will earn a letter grade based on the following scale:

A:  180 points and higher
B:  160 points up to and including 179.99
C:  140 points up to and including 159.99
D:  120 points up to and including 139.99
F:  below 120 points

Individual Case Preparation/Summary
You will be given guided preparation for each class in the format of an individual assignment you will complete and submit prior to each class. The purpose of the assignment is to prepare you to evaluate a case with your group during class. The effort you put in to the preparation before class will directly impact your group’s learning experience.

Guidelines: All preparation assignments will be submitted on eCampus prior to the start of class. Additionally, I recommend bringing either a printed copy or electronic copy to class, which can be accessed to aid in completing the case in class. Specific information about each assignment will be provided in the Guided Preparation Packet for each class.
Case Analysis and/or Reflections
After the weekends we cover reserves and derivatives you will submit a case analysis. The purpose of the analysis is to ensure each individual has an understanding of the assumptions made and strategy determined by your group from the case assigned in class.

After the other weekends I will ask you to submit a class reflection. The reflection will include what you learned in class, concepts with which you are still struggling, and how you plan to apply the material you learned in class at work. Additional prompts may be added to the reflection as well relevant to specific topics covered. The purpose of the reflection is to start helping you transfer topics covered in class to work. All case analysis and reflection assignments will be due on Sunday at 10:00 p.m. a week following each class.

Online Discussion Post and Responses
The purpose of the online discussion is to keep you connected with the material in between class meetings, to stimulate interest in the content, and to keep everyone on track with their reading assignments.

Initiating a discussion: Your instructor will post 3 prompts on eCampus, one related to each role described above, under “Groups & Varying Experience”. You will post a discussion point based on the prompt corresponding to your group role. Each student will initiate one discussion that will be due by the deadline listed on the class schedule.

Responding to posts: You must post at least one response to each discussion (one for operations, one for financial, one for CSR, unless you initiate a post that week). If it was your turn to initiate a discussion then you are responsible for trying to continue the discussion and monitoring responses to your posts.

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

1) Demonstrating knowledge and mastery of the topic discussed; I agree...is not sufficient. Add something to the discussion.
2) Offering additional information not covered in class
3) Stimulating the interest of your peers and instructor
4) Being respectful of the peers and facilitator in your learning community

Company Analysis
Prior to the first week of class you will select an upstream, midstream, downstream, and oilfield services or equipment company. More guidance is provided on the selection of companies in your Guided Preparation Packet. For the upstream company you select you will complete a company analysis.

Guidelines: Your instructor encourages you to be creative with the analyses you complete. Your submissions are not restricted to words. You can use a dashboard format (samples on eCampus), infographics, or another format of your choice that achieves the goal of your
analysis. You can use your judgment as to what is most important to include in your analysis, as long as it reflects the company’s financial position, risks, and future opportunities. You have learned the skills necessary to complete this assignment in your previous courses, including (but not limited to) financial ratios, SWOT analysis, stock trends, etc. Please review the assignment rubric for more details about what I want in your analysis.

**Custom Project**

This project is an opportunity to work on something that will benefit you in your career. Students last semester worked on projects at their job. These were projects they sought out as a result of this assignment or enhanced as a result of this assignment. You should not use projects you are already expected to do in your current role for this assignment. Last year a few really interesting projects were done by students who did not work in the industry included interviewing three professionals in energy finance about how the decline in prices impacted company’s debt covenants (i.e. triggered mandatory repayment of debt). Another student applied what we learned about derivatives to their own industry by exploring the possibility of their company hedging steel purchases.

You will submit a brief project proposal for my review and approval prior to starting your project. Your final deliverable should include a summary of the results from the work you did, along with a reflection about how the project contributed to your learning and career.

**Final Case**

The course will culminate with a comprehensive case. The case will be integrated across both electives and your strategy course. You will complete the case in your normal year 2 groups, which you are using for strategy. These groups should have students from the energy and marketing electives. To complete the case, your groups will use the knowledge you have gained through the semester in all three courses. At the beginning of the last class weekend you will be given a case. By the end of class that session all work must stop and you must submit your PowerPoint slides to Dr. Devers. During class on Saturday morning, you will present your ideas to your peers and instructors. You will be rated by your peers (25% of your grade) and your instructors (75% of your grade). The ratings will also be used to select the team with the best idea. The winning team will be rewarded the following:

1) The names of all championship team members will be engraved on a plaque that will be prominently displayed in the Mays Business School CITYCENTRE campus.

2) Dean Jones will send letters documenting success to individuals of the employing firms of all members of the championship team.

**Academic Integrity**

Aggie Honor Code

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

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

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

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

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

The reasons absences are considered excused by the university are listed below. See Student Rule 7 for details (http://student-rules.tamu.edu/rule07). The fact that these are university-excused absences does not relieve the student of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence. Falsification of documentation is a violation of the Honor Code.

1) Participation in an activity that is required for a class and appears on the university authorized activity list at https://studentactivities.tamu.edu/app/sponsauth/index
2) Death or major illness in a student's immediate family.
3) Illness of a dependent family member.
4) Participation in legal proceedings or administrative procedures that require a student's presence.
5) Religious holy day. NOTE: Prior notification is NOT required.
6) Injury or illness that is too severe or contagious for the student to attend class.
   a) Injury or illness of three or more class days: Student will provide a medical confirmation note from his or her medical provider within one week of the last date of the absence (see Student Rules 7.1.6.1)
   b) Injury or illness of less than three class days: Student will provide one or both of these (at instructor's discretion), within one week of the last date of the absence: (i.)Texas A&M University Explanatory
Statement for Absence from Class form available at http://attendance.tamu.edu
or (ii.) Confirmation of visit to a health care professional affirming date and time of
visit.
7) Required participation in military duties.
8) Mandatory admission interviews for professional or graduate school which cannot be
rescheduled.

Other absences may be excused at the discretion of the instructor with prior notification and
proper documentation. In cases where prior notification is not feasible (e.g., accident or
emergency) the student must provide notification by the end of the second working day after
the absence, including an explanation of why notice could not be sent prior to the class.

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

Changes to the Syllabus
This syllabus was created based on a planned schedule. The instructor reserves the right to
change the syllabus when it will benefit students’ learning, or in situations beyond the control
of the instructor (weather/school closures).
### Class Schedule

<table>
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<tr>
<th>Date</th>
<th>Topic</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Jan. 22 (Fri.)</td>
<td>Instructor introductions and Course expectations Industry overview/challenges</td>
<td>Mini-case 1 prep (not for a grade), but I will provide feedback.</td>
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<tr>
<td>2 Feb. 5 (Fri.)</td>
<td>Reserves</td>
<td>Due before class: Case #1 preparation Due 2/14 at 10:00 p.m.: Reserves case analysis/reflection</td>
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<td>3 Feb. 20 (Sat. AM)</td>
<td>Derivatives</td>
<td>Due before class: Case #2 preparation</td>
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<tr>
<td>4 Feb. 20 (Sat. PM)</td>
<td>Derivatives</td>
<td>Due 2/28 at 10:00 p.m.: Derivatives case analysis/reflection</td>
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<tr>
<td>5 Mar. 5 (Sat. AM)</td>
<td>Financial Statement Analysis</td>
<td>Due before class:&lt;li&gt;Upstream company analysis raw data&lt;/li&gt;&lt;li&gt;Custom project proposal&lt;/li&gt;</td>
</tr>
<tr>
<td>6 Mar. 5 (Sat. PM)</td>
<td>You Choose &amp; Your Experiences (including financing options; CSR; alternative energy; midstream; downstream – you all can learn from sharing your experiences)</td>
<td>Due before class:&lt;li&gt;Case #3 preparation&lt;/li&gt;Due 3/13:&lt;li&gt;Final upstream company analysis&lt;/li&gt;&lt;li&gt;Class reflection&lt;/li&gt;</td>
</tr>
<tr>
<td>7 Apr. 1 (Fri.)</td>
<td>Guest Speakers</td>
<td>Due before class:&lt;li&gt;Final custom project&lt;/li&gt;Due 4/10:&lt;li&gt;Class reflection&lt;/li&gt;</td>
</tr>
<tr>
<td>8 Apr. 29 (Fri.) – Apr. 30 (Sat.)</td>
<td>Final case</td>
<td>No deliverables required; case due in class</td>
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**Online Discussion Deadlines — Initial Posts**
Operational representative: post due February 14, 10 p.m.
Financial representatives (both): post due March 13, 10 p.m.
Corporate and social responsibility representative: post due April 10, 10 p.m.

**Online Discussion Deadlines — Responses**
Operational responses due by: February 28, 10 p.m.
Financial responses due by March 20, 10 p.m.
CSR responses due by April 17, 10 p.m.

See the Excel version of the assignment schedule for an alternative format to view a summary of deadlines.
I Promise To:

1) Lead by being a content expert
2) Organize the course effectively and guide time on task
3) Communicate by being responsive to questions and responding quickly
4) Facilitate learning through active engagement
5) Demonstrate genuine interest in your learning
6) Assess fairly and quickly
7) Provide challenge with support
8) Emphasize relevance using real-world examples
9) Reflect and adapt appropriately based on your feedback
10) Provide a reasonable amount of work outside of class with clear guidance*

*I reserve the right to sometimes incorporate uncertainty into in class assignments, since I will be there to give you immediate feedback and additional instruction.

In summary, I promise no fluff, no boredom, and practical application (something you can take to work on Monday). If I ever fail to fulfill this promise at any point I expect you to make me aware of it.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
* Submit original form and attach a course syllabus.*

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

2. Request submitted by (Department or Program Name):
   Select or Type Department/Program Name
   Department Of Health & Kinesiology
   KINE 630 Periodized Models

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

4. Catalog course description (not to exceed 50 words):
   Scientific principles and procedures relating to detailed cutting edge periodized training designs; emphasis on researched based periodized program designs and implementation regarding the background/history, concepts, variations and application of relevant periodization models.

5. Prerequisite(s):
   Graduate Classification or Approval of Instructor
   Cross-listed with: 
   Stacked with:

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

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

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

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

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

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

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

    M.S. PhD in Kinesiology, Health, Pedagogy

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

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

13. Prefix
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<td>PERIODIZED PROGRAM MODELS</td>
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   3.00 | 0.00 | 0.00 | 3.00 | 3105050014 | 1402 | 16 | 003632 |

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

Dr. George Cunningham
Chair, College Review Committee Date

Dr. George Cunningham
Dean of College Date

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

Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 07/14
College of Education & Human Development  
Department of Health & Kinesiology  
KINE 630 – Spring 2016

Course Title: KINE 630 – Periodized Program Models  
Course Time: 2:00 PM – 5:00 PM – Wednesday  
Professor: Dr. Mike Greenwood FNSCA, CSCS * D, RSCC* D, FACSM, FISSN  
Phone: 979-862-4667  
Office: Blocker 305 D  
Office Hours: M-W-F 11 AM  
E-Mail: mgreenwood@hlkn.tamu.edu  
Prerequisite(s) Graduate classification or approval of instructor

Required & Supplemental Textbooks/Materials:


**Current supplemental readings relevant to select topics will be assigned periodically**

Course Description:

Scientific principles and procedures relating to detailed cutting edge periodized training designs; emphasis on researched based periodized program designs and implementation regarding the background/history, concepts, variations and application of relevant periodization models for multiple populations {Exercise, Athletic, Clinical, etc.}.

Course Outcomes:

**At the conclusion of the semester students will demonstrate an understanding of:**

1. The insight into the theory and methodology of training.  
2. The history of systematic training.  
3. Factors relevant to periodized training.  
4. Rationales of various types of periodized models.
5. Various aspects of designing an annual plan for training.
6. The current research supported literature pertaining to program planning designs.
7. Long term athlete development via relevant periodization models – select population based
8. Related ideas, methodologies and techniques in planning and periodization.
9. How to design specific periodization program models based on special physiological and psychological requirements according to unique populations.

**Evaluation Procedures**

A. **Course Assignments and Requirements:**

The student is expected to:
1.) Attend class - participate in discussions and noted practical experiences;
2.) Abide by reasonable rules of professional conduct;
3.) Turn in **typed** quality work on time (No Late Assignments Accepted – Except For University Excused Absence Policies Rule 7) – [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)
4.) Demonstrate effective writing skills and rational thinking ability.

B. **Evaluation Procedures**

**Final Comprehensive Exam** – 40 % of final grade (400 points)

This written take home exam will be provided 2 weeks before the end of the semester. This exam will require that the student demonstrates a strong knowledge of all the content areas covered in class. The exam will be essay format with emphasis placed on practical application and available current supportive research. The exam is worth 40% of the final grade. No makeup exams will be given except in the cases of university excused absences. [http://student-rules.tamu.edu/rule07](http://student-rules.tamu.edu/rule07)

Final Exam due via e-mail WORD file format no later than assigned due date

{5-8-16 On Or Before 5 PM}

**Periodization Presentation Topics** - 30 % of final grade (300 points)

Each student will be required to perform 3/4 detailed PowerPoint presentations on a topic provided by Dr. Mike Greenwood throughout the course of the semester. The student will sign up for their respective topic as early as possible which will be based on the chapter lectures designated for each week in the semester. The PowerPoint presentation must be sent via e-mail to Dr. Greenwood at least 2 days before the class meets on Tuesday afternoon. This will allow the instructor time to evaluate the presentation and determine if all relevant topics/information are included in the lecture. Please only address information in the presentation that was assigned to you. Relevant tables, charts, figures and manuscripts are expected to be part of your teaching assignments. Class members that are not presenting are expected to participate in the lecture asking relevant questions and providing quality practical examples. When in doubt please ask any questions that will help you provide a quality finalized product. **No PDF format submissions accepted**
C. **Annual Plan and Program Design Project - 30% of final grade (300 points)**  
Students will be expected to design a detailed strength and conditioning program on an approved topic specifically related to scientifically based periodization designed principles. Additionally, students will be required to submit a solid rationale when explaining their methodology. Specific guidelines for this project will be discussed in detail throughout the entire semester. *No PDF format submissions accepted*

If time allows, the student will give a 40 plus minute PowerPoint Presentation on their selected topic. Specific guidelines for this project will be discussed in detail throughout the entire semester. Your intended topic is due to the instructor on or before the 3rd class period of the semester. Final projects are due 2 weeks before final examinations occur.

**Student presentations will be evaluated on:**

*Preparation: (Small slide handout of project provided to class members preceding the presentation)*

*Visual aids*

*Clarity of discussion*

*Argumentation (Logical with supporting research evidence)*

*Overall Impression & Relevant Applications*

**Grading Scale:**

- A = 90 - 100 (900 - 1000 pts.)
- B = 80 - 89 (800 - 899 pts.)
- C = 70 - 79 (700 - 799 pts.)
- D = 60 - 69 (600 - 699 pts.)
- F = Below 60 (Below 599 pts.)
### IV. CLASS OUTLINE AND SCHEDULE *

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
<th>Book Chapter: More Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>Week 1</td>
<td>Course Introduction – Setting The Stage For Program Design</td>
<td>Syllabus&lt;br&gt;Motor Learning Handouts&lt;br&gt;Presentation Schedule</td>
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<tr>
<td>W</td>
<td>Week 2</td>
<td>Motor Learning Related To Strength Training Periodization</td>
<td>Motor Learning Lecture &amp; Supplemental Notes&lt;br&gt;Sport &amp; Exercise Psychology Handouts</td>
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<tr>
<td>W</td>
<td>Week 3</td>
<td>Sport &amp; Exercise Psychology Related To Strength Training Periodization</td>
<td>Sport Psychology - Supplemental Notes&lt;br&gt;Super-Training 339-343</td>
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<td>W</td>
<td>Week 4</td>
<td>ST &amp; C Philosophy &amp; Foundational Periodization Approaches</td>
<td>Presentation &amp; Supplemental Notes</td>
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<td>W</td>
<td>Week 5</td>
<td>Development of Training Programs Peridization as a Form of Organization Periodization Controversy Training as an Objective of Management Prerequisites for Organizing Training</td>
<td>Super-Training 313-339&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<tr>
<td>W</td>
<td>Week 6</td>
<td>Classification of Sports – Training Process – Preparedness</td>
<td>Super-Training 345-362&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<td>W</td>
<td>Week 7</td>
<td>Periodization &amp; ST &amp; C Philosophy</td>
<td>Guest Speaker&lt;br&gt;Supplemental Notes</td>
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<td>Week 8</td>
<td>Long Term Training Effect Dynamics of Training in the Annual Cycle Principles of Programming &amp; Organizing Training</td>
<td>Super-Training 362-377&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<td>Block Periodization Review &amp; Evaluation</td>
<td>In Class Video&lt;br&gt;Supplemental Notes&lt;br&gt;Class Discussion</td>
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<td>Week 10</td>
<td>Primary Aims for Program Training Models for Structuring Annual Training Programming Sequence – Managing – Future</td>
<td>Super-Training 378-392&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<td>Week 11</td>
<td>Strength Training Methods PNF Training System Combinations of RT – Muscle Training – Strength Training Compendium</td>
<td>Super-Training 393-419&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<td>Week 12</td>
<td>Periodization &amp; ST &amp; C Philosophy</td>
<td>Guest Speaker</td>
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<td>W</td>
<td>Week 13</td>
<td>Designing Sport Specific Strength Programs Needs Analysis Training Programs Classification Systems</td>
<td>Super-Training 421-441&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<td>W</td>
<td>Week 14</td>
<td>Restoration &amp; Stress Management Assessment For Program Design Injury &amp; Safety In ST &amp; C Safety &amp; Training Apparel</td>
<td>Super-Training 444-469&lt;br&gt;Supplemental Notes&lt;br&gt;Student Presentation</td>
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<td>Week 15</td>
<td>Overtraining Towards The Future NSCA Periodization Video PowerPoint Presentations</td>
<td>Super-Training 441-444 &amp; 473-480&lt;br&gt;Student Presentations</td>
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<tr>
<td>W</td>
<td>Week 15</td>
<td>FINAL COMPREHENSIVE EXAM DUE</td>
<td>All Textbook Chapters Listed Above &amp; All Lecture Notes/Handouts</td>
</tr>
</tbody>
</table>

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**This schedule is subject to change upon the instructor’s discretion – Students will be notified of such changes in advance**
COURSE ADMINISTRATIVE STATEMENTS

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

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

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

Aggie Code of Honor: “Aggies do not lie, cheat or steal, nor do they tolerate those who do.” “The Aggie Code of Honor is an effort to unify the aims of all Texas A&M men and women toward a high code of ethics and personal dignity. For most, living under this code will be no problem, as it asks nothing of a person that is beyond reason. It only calls for honesty, integrity, characteristics that Aggies have always exemplified. The Aggie Code of Honor functions as a symbol to all Aggies, promoting the understanding and loyalty to truth and confidence in each other.”

All students are expected to abide by the Aggie Honor Code. Students should be aware of all Honor Council Rules and Procedures on the Honor Council website at www.aggiehonor.tamu.edu
MEMORANDUM

DATE: 1/12/2016

TO: CEHD Graduate Instruction Committee

THROUGH: George Cunningham
Associate Dean

FROM: Adam Barry
Chair of Graduate Education Programs

SUBJECT: Online Masters of Health Education and Sport Management Committee Size

The Department of Health & Kinesiology (HLKN) is proposing the following new course: KINE 630: Periodized Models. KINE 630: Periodized Program Models is a research based course that investigates scientific principles and procedures related to detailed cutting edge periodized training designs and their implementation regarding the background/history, concepts, variations and practical applications of relevant periodization models.

The Graduate Faculty of HLKN have reviewed and unanimously support this proposal.

Rationale: Over the past 20 years the academic realm of strength and conditioning has been one of the fastest growing disciplines in our profession. Similar to the sports nutrition industry, it has become increasingly difficult to stay abreast of cutting edge information necessary to elevate ones professional status in a dynamic and evolving occupation. While our current KINE 629 course [Physiology Of Strength & Conditioning] helps establish a solid foundation regarding basics strength and conditioning principles the minimal time frame associated with a typical semester barely allows adequate time to implement key specialized concepts in this budding profession.

Thank you for your consideration.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
• Submit original form and attach a course syllabus.

Form Instructions
1. Course request type: ☑ Undergraduate ☐ Graduate ☐ First Professional
2. Request submitted by (Department or Program Name): Department of Mechanical Engineering
3. Course prefix, number and complete title of course: MEEN 611: Advanced Internal Combustion Engines
4. Catalog course description (not to exceed 50 words):
Advanced thermodynamics of cycles for internal combustion engines, including fuels and combustion; performance characteristics of various types of engines.

5. Prerequisite(s): MEEN 344 or equivalent

6. Is this a variable credit course? ☑ Yes ☐ No
   If yes, from _____ to _____
7. Is this a repeatable course? ☐ Yes ☑ No
   If yes, this course may be taken _____ times.

8. Will this course be repeated within the same semester? ☐ Yes ☑ No
9. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☑ No

10. How will this course be graded? ☑ Grade ☐ S/U ☑ P/F (CLMD)
11. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
   MS, MEng, Ph.D. in mechanical engineering

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

13. Prefix Course # Title (excluding punctuation)

<table>
<thead>
<tr>
<th>MEEN</th>
<th>611</th>
<th>Adv Int Comb Engines</th>
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<tbody>
<tr>
<td>Lect</td>
<td>Lab</td>
<td>Other</td>
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<td>3.00</td>
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Approval recommended by: [Signature]

Department Head or Program Chair (Type Name & Sign) Date 12-3-14

Chair, College Review Committee Date 12-17-14

Dean of College Date 12-17-14

Chaired BCC or UCC Date 2/4/16

Questions regarding this form should be directed to Sandra Williams at 945-8201 or sandra.williams@tamu.edu.
HONOR CODE:

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

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

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

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

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

COURSE DETAILS:

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

INSTRUCTOR:

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

TA:

TBD

GRADING:

<table>
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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exam #1</td>
<td>25%</td>
</tr>
<tr>
<td>Exam #2</td>
<td>25%</td>
</tr>
<tr>
<td>Homework (5 sets, 3% each)</td>
<td>15%</td>
</tr>
<tr>
<td>Projects (4 sets)</td>
<td>35%</td>
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</table>

LETTER ASSIGNMENT SCHEME:

- 90 ≤ A ≤ 100; 80 ≤ B < 90
- 70 ≤ C < 80; 60 ≤ D < 70
- F < 60

Lower bounds may or may not be adjusted to students’ advantages.

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

The instructor will not discuss grade details over the phone or through an email address other than the students @tamu.edu address. Grades will be posted as they become available throughout the semester on the eCampus website. It is the student’s responsibility to ensure his or her grade is posted correctly.

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

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

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

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

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

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

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

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

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

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


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


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

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at White Creek complex on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.
<table>
<thead>
<tr>
<th>Lecture</th>
<th>Week</th>
<th>Date</th>
<th>Book Chapter</th>
<th>Coverage</th>
<th>Assignments</th>
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<td>Notes, 2, 5</td>
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