Core Curriculum Management

New Core Component Proposal

ACCT 421-C: Critical Communication Skills for Accountants

Course Prefix: ACCT
Course Number: 421
Academic Level: UG
Complete Course Title: Critical Communication Skills for Accountants
Abbreviated Course Title: CRITICAL COMM ACCT
Crosslisted With: N/A
Semester Credit: 2
Credit Hour(s): 2
Proposal for Communication Designation

Communication Designation
Number of credits offered for C sections of course: 2
Number of Sections per Academic Year: 7
Enrollment per Section (Avg.): 50

If the course is a variable topics course (e.g., 289, 489, 291, or a course that regularly changes in topic such as “Studies in Rhetoric”), how will the department ensure that the course consistently meets the requirements for a C course?

N/A

Do any assistants (i.e., GATs or undergraduates) help with the course?

Yes

How many?

One per section; Three in a long semester, one in a short semester.
Who will evaluate the writing and speaking assignments?

Writing assignments are evaluated by the instructor of record. Speaking assignments (including the written portion of speaking assignments, e.g. slides) are evaluated by both the instructor and the teaching assistant who also attends class. This provides two perspectives on the speaking presentations. For example, if the instructor is providing verbal feedback after a presentation, she may not be able to capture the feedback in writing herself, the teaching assistant captures it. Rubrics are used by the instructor and teaching assistant for evaluating all presentations for consistent assessment.

If you are working with assistants (graduate or undergraduate included), briefly explain how you will monitor and supervise their work and what roles they will play in the teaching of communication. If they help with grading, explain how you will ensure consistency and oversight of grading (e.g., rubrics).

Rubrics are previously mentioned. We also accept grade appeals from students as outlined in the syllabus to detect grading issues that might be due to a grading error or simply a grade posting issue. Teaching assistants do not play a role in teaching in the course other than interacting with students during office hours, which may include coaching and practice on the issues the student intends to improve upon in their office hours visit.

Teaching assistants are graduate students who were selected by the instructors based on successful completion of the course in undergraduate studies.

Pick a syllabus statement:

To pass this course, you must pass the writing and speaking components. NOTE: In this case the student will receive a failing grade.]

List all graded writing and speaking assignments along with the approximate word count or length of time speaking of each. For speaking assignments, put 0 in the word count box. For writing put 0 in the length of speaking assignment box. (Note that for most 12-point fonts there are about 250 words on a page if double-spaced and 500 if single-spaced.) In addition, list the percentage of the final grade each assignment represents.

<table>
<thead>
<tr>
<th>Writing/Speaking Assignment</th>
<th>Word count</th>
<th>Length of Speaking Assignment</th>
<th>% of Final Grade</th>
<th>Collaborative?</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Class Writing Assignment #2</td>
<td>500</td>
<td>0</td>
<td>12</td>
<td>No</td>
</tr>
<tr>
<td>In-Class Writing Assignment #3</td>
<td>1000</td>
<td>0</td>
<td>8</td>
<td>No</td>
</tr>
<tr>
<td>Team Presentation</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>Yes</td>
</tr>
<tr>
<td>Impromptu Speeches</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>No</td>
</tr>
<tr>
<td>In-Class Writing Assignment #1</td>
<td>400</td>
<td>0</td>
<td>8</td>
<td>No</td>
</tr>
<tr>
<td>Participation (speaking)</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>No</td>
</tr>
</tbody>
</table>

Add the total of the word count, length of speaking assignment, and % of final grade here.

<table>
<thead>
<tr>
<th>Total Word Count</th>
<th>Total Length of Speaking Assignment</th>
<th>Total % of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>6</td>
<td>63</td>
</tr>
</tbody>
</table>

Explain how collaboration is monitored to ensure equal participation.

Team members complete a mandatory evaluation of team members in their group. Student are also encouraged to report feedback or concerns to the instructor or teaching assistant before the formal evaluation. The instructor uses the mandatory evaluation feedback to adjust the team presentation and/or participation grade at their discretion based on the results.

Describe the formative feedback provided on student writing and speaking, especially on major assignments. Formative feedback is feedback given before a grade is assigned. You can meet this requirement with comments on drafts (including slides or speech outlines), practice delivery of speeches, or peer review done before the final product is graded, or you can give feedback on graded writing or speaking if there are 5 or more assignments in the same genre.

First, students are encouraged to have all writing assignments and presentations reviewed by the Mays Communication Lab or a course teaching assistant. This is not a requirement.

Students receive written feedback from the instructor of record on their writing assignments. Additionally, the baseline writing assignment (1) provides a set of formative feedback that is applied the remainder of the semester. The assignment is written with a rubric provided to the student with the assignment and is graded as a completion grade. The assignment is reviewed by the instructor of record as well as peers in a class period after it is due. The student is expected to review and apply feedback provided and apply to the second and third writing assignments. If it is apparent that feedback from the baseline assignment is not considered in later assignments, the score for the baseline assignment is adjusted. Drafts are not utilized as a basis for the final grade on any writing assignment. The three written assignments practice one genre of writing (business communication).

For speaking, students receive feedback from the instructor of record as well as peers in the class after impromptu speeches which can be applied to the team presentation later in the semester. The instructor of record provides the rubric after the team presentation. Students are encouraged to visit the Communication Lab in at Mays to rehearse their delivery of the team speech in front of a consultant to receive feedback before their class presentation. This rehearsal is not a requirement.
Describe how you provide writing and speaking instruction.

For writing, each day, other than the two days scheduled for a writing assignment, includes instruction in writing and/or using standard English grammar, punctuation, and spelling. Instruction is provided by the instructor of record. Instruction includes reviews and low-stakes writing practice over grammar and punctuation rules as well as lecture on writing principles. Students also have opportunities to review and critique writing examples and discuss effective writing techniques, as well as discuss techniques for providing constructive feedback to others.

For speaking, other than the days scheduled for presentations (which is approximately 70% of the allotted speaking time in the course), instruction on effective speaking communication is provided by the instructor of record. Realistic accounting communication scenarios are discussed such as running a meeting with a client or delivering feedback to another employee, which often require thinking on your feet - therefore, improvisation is practiced in the class presentations. Effective visual (ex. powerpoint presentation) design techniques are also discussed with examples provided to illustrate design techniques. Lastly, there is some instruction on presenting collaboratively as it relates to the team project such as strategies of effective teams in past semesters and tips for ways to make team presentations appear cohesive.

Additional Comments
The course is team-taught by two members of our faculty who have practical work experience in the Accounting field as well as an interest in teaching speaking and writing skills, with each faculty member emphasizing one or the other topic. We believe the multiple perspectives that two faculty members bring to the course improves the experience for the students.

RE: word count, the team presentation (part of the speaking part of the course) requires four collaborative, written assignments which contribute to the word count in the course outside of the previously mentioned individual written assignments. The four minutes listed above are the minimum individual minutes a student would complete, even though it is a collaborative presentation.

Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.

Attach Course Syllabus: ACCOUNTING 421.pdf

Reviewer Comments
Valerie Balester (v-balester) (08/27/19 12:37 pm): Rollback: This does not meet the formative feedback requirements for writing or speaking; formative feedback must be given before a grade is assigned and it must be required for at least one writing and one speaking assignment for all students, so they get the experience of using feedback to revise. It should be on the same document/speech that they are working on. If you wish to avoid that, they need at least 5 assignments in the same genre, not three, to be graded and returned before the next is due. Please contact me (v-balester@tamu.edu) if you have questions.

Donna Pantel (dpantel) (10/08/19 11:02 pm): REPORT ON RECERTIFICATION OF C COURSE: ACCT 421 We recommend that ACCT 421 Critical Communication Skills for Accountants be certified as a Communication (C) for four academic years (1/20 to 1/24). We have reviewed a representative syllabus and have determined that the course meets or exceeds the following criteria: (1) 53% of the final grade is based on writing and speaking quality; (2) the total number of words is 1900; (3) the total minutes of performance is 6; (4) the instructor to student ratio is 1:25; and (5) the assigned writing and speaking are appropriate to the major. ACCT 421 is a two-credit course, grandfathered for some collaborative work. Students complete 3 writing assignments and deliver 4 minutes each of a group presentation, as well as a 1-minute impromptu speech. The first writing assignment is given written instructor feedback and is peer reviewed but is only graded with a completion grade. For speaking, students receive feedback from the instructor and peers after impromptu speeches. Students are encouraged to visit the Communication Lab in Mays to rehearse their delivery of the team speech in front of a consultant to receive feedback before their class presentation. Instruction includes reviews and low-stakes writing practice over grammar and punctuation rules as well as lecture on writing principles. For speaking, realistic accounting communication scenarios and effective visual design techniques are discussed.

Key: 1050
ACCOUNTING 421
Critical Communication Skills for Accountants
Fall 2019, WCBA 155

“When you’re managing as much change as corporations globally must deal with today, the ability to communicate and communicate effectively is so important that it ought to be a core capability in every business school curriculum.” The New York Times, 2016

<table>
<thead>
<tr>
<th>Professor/Lecturer:</th>
<th>Mary K. Stasny, Ph.D.</th>
<th>Courtney Foster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office:</td>
<td>Wehner 485B</td>
<td>Wehner 485B</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:mstasny@mays.tamu.edu">mstasny@mays.tamu.edu</a></td>
<td><a href="mailto:cfoster@mays.tamu.edu">cfoster@mays.tamu.edu</a></td>
</tr>
<tr>
<td>Graduate Assistant:</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Office Hours:</td>
<td>R, 11:30 – 12:30 or by appointment</td>
<td>T, 10:30am-12:00pm</td>
</tr>
<tr>
<td>Professor/Lecturer of:</td>
<td>Writing Component</td>
<td>Speaking Component</td>
</tr>
</tbody>
</table>

COURSE OBJECTIVES AND LEARNING OUTCOMES

Communication plays a critical role in almost every aspect of business – managing employees, developing relationships with clients, presenting financial results to shareholders, persuading providers of capital, etc. Simply put, the better you communicate, the more successful you will be in business. Therefore, the course objectives of ACCT 421 are to help you:

- understand the theories of grammar and the rhetoric of sentence and paragraph development.
- build a strong background in professional writing so that you will be able to write clearly, concisely, effectively, and confidently. In addition, you will gain experience in critiquing your own writing and that of your team members. (In this class you will be doing a different type of writing than you may be doing in other accounting courses. The class focus is on improving relationships/providing information to a client or supervisor. You will not be writing internal audit or tax reports.)
- gain confidence in your ability to orally present information in the style required by the accounting profession, which includes constructing visuals for presentations.
- cultivate specific leadership/management skills that you will use in the accounting profession.
By the end of this course, students should be able to:
- Write cohesive, grammatically correct, and persuasive communications that are realistic to what an Accountant may write in their career.
- Politely critique the writing and speaking of themselves and peers.
- Deliver impromptu presentations on a brief topic of personal or business interest.
- Deliver prepared presentations on business topics and provide supporting points in their speech.

INSTRUCTORS’ EXPECTATIONS

We believe strongly in the classroom as a social learning environment. We expect you to be physically and mentally present during our scheduled meetings, to be engaged, and to participate fully in class discussions, group work, and workshops. This class is an opportunity to improve your writing and speaking skills through interaction with your peers, lectures, and guided practice, and your focused presence is required.

1. Please ensure that your cell phone is on silent and in your backpack or purse. No hats in the classroom, please. Also, please be very careful with respect to laptops and other electronic devices, as they are equally helpful and distracting. Remember, a lack of presence will hurt your class participation grade.
2. If you miss a class, it is your responsibility to contact your team members in order to receive class notes or assignments. Often we will give handouts or discuss information that is not in the text. Unexcused absences and arriving late to class WILL impact your class participation grade.
3. If there are team conflicts or concerns, please contact the instructors immediately. Do not wait until the end of the semester when your grade or a team member’s grade may be affected.
4. Be proactive and print out all assignments before coming to campus. Do not assume that you will be able to print them on campus an hour before class.
5. Always get to class early on days when writing assignments are due and on presentation days to load your slides, etc.
6. Follow the syllabus/assignment requirements concerning the number of copies and being on time. If an assignment is not complete or turned in late, points will be deducted.
7. Frequently you will be working with team members during class, so please do not ask to attend a different class section. To encourage equal participation in team projects and assignments, students will complete team member evaluations at the end of the semester.
8. Students are required to pass both the writing and public speaking course components to receive a passing course grade.
**IMPORTANT UNIVERSITY DATES**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 26</td>
<td>Monday</td>
<td>First day of Fall Semester classes</td>
</tr>
<tr>
<td>September 2</td>
<td>Monday</td>
<td>Last day for adding/dropping courses for semester</td>
</tr>
<tr>
<td>September 27</td>
<td>Monday</td>
<td>Last day to apply for all degrees to be awarded in December without a late fee</td>
</tr>
<tr>
<td>November 15</td>
<td>Friday</td>
<td>Last day to drop courses with no penalty (Q-drop)</td>
</tr>
<tr>
<td>November 15</td>
<td>Friday</td>
<td>Last day to officially withdraw from the University</td>
</tr>
<tr>
<td>November 27</td>
<td>Wednesday</td>
<td>Reading Day, no classes</td>
</tr>
<tr>
<td>November 28-29</td>
<td>Thursday-Friday</td>
<td>Thanksgiving Holiday</td>
</tr>
<tr>
<td>December 2</td>
<td>Monday</td>
<td>Redefined Day; students attend Friday classes</td>
</tr>
<tr>
<td>December 3</td>
<td>Tuesday</td>
<td>Redefined Day; students attend Thursday classes</td>
</tr>
<tr>
<td>December 4</td>
<td>Wednesday</td>
<td>Last day of Fall Semester classes</td>
</tr>
<tr>
<td>December 4</td>
<td>Wednesday</td>
<td>Last day to apply for all degrees to be awarded in December</td>
</tr>
<tr>
<td>December 5</td>
<td>Thursday</td>
<td>Reading Day; No Classes</td>
</tr>
<tr>
<td>December 6, 9-11</td>
<td>Thursday-Friday; Monday-Tuesday</td>
<td>Fall Semester final examinations for all students</td>
</tr>
</tbody>
</table>
The Faculty Senate passed the Aggie Honor Council procedures and rules, effective September 1, 2004. The following statement is required on all syllabi: “An Aggie does not lie, cheat, or steal or tolerate those who do.”

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

SUGGESTED TEXTBOOK(S)

*Effective Writing: A Handbook for Accountants*, May and May, 10th edition. (7th – 9th editions will work also.) We *strongly* encourage you to purchase the text! You may purchase the book from several sources, including CourseSmart Textbooks Online: www.coursesmart.com; Barnes and Noble: www.tamubookstore.com; and the MSC Bookstore.

*The Truth About the New Rules of Business Writing*, Canavor and Meirowitz
This is a no, nonsense, practical guide to effective business writing. It is based on the principle that effective writing is “the road to more credibility, better professional image, and successful results” (xi). We strongly encourage you to purchase and read this entire book at your earliest convenience. It is filled with great advice.

ACCOUNTING 421 GRADING

Writing Component:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar and Punctuation Quiz #1</td>
<td>20</td>
</tr>
<tr>
<td>Grammar and Punctuation Quiz #2</td>
<td>40</td>
</tr>
<tr>
<td>Baseline Writing Assignment #1</td>
<td>40</td>
</tr>
<tr>
<td>In-Class Writing Assignment #2 (minimum 500 words)</td>
<td>60</td>
</tr>
<tr>
<td>In-Class Writing Assignment #3 (minimum 1000 words)</td>
<td>40</td>
</tr>
<tr>
<td>Class Participation*</td>
<td>50</td>
</tr>
<tr>
<td><strong>TOTAL POINTS</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

Speaking Component:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impromptu Speeches (1 min.)</td>
<td>25</td>
</tr>
<tr>
<td>National Power Point Day</td>
<td>25</td>
</tr>
<tr>
<td>Team Presentation (4 min.)</td>
<td>100</td>
</tr>
<tr>
<td>Class Participation* (1-2 min.)</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL POINTS</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

*Class Participation divided between attendance (see attendance policy below) and involvement during class activities during speaking class days (for example, providing
feedback to peers after impromptu presentations or asking questions of teams during team presentations). Instructors will provide more details in class about what counts towards the participation grade in their respective writing or speaking portion of the course.

COURSE GRADE

Your course grade is determined based on total points. Grades will be assigned as follows:

- A 450-500 points
- B 400-449 points
- C 350-399 points
- D 300-349 points
- F 0-299 points

GRADE APPEALS/CHANGES

If you believe an error has been made in grading or recording an assignment/exam, you must submit a written request for review within three class days of the date the assignment/exam score was made available in class. ANY REQUESTS MADE AFTER THIS TIME CAN NOT BE CONSIDERED. It is therefore critical that you pick up and review all graded assignments on a timely basis.

The Course: Changes to this syllabus may occur during the semester. An important reason to come to class and to check eCampus...

ATTENDANCE POLICY

Unlike many of your other accounting/finance courses, Acct. 421 is a skills-based, performance course. Therefore, it is important that you attend class and be on time.

Make-up work will be available only if an absence is a university-excused absence (please refer to the “Assignment Make-Up Policy” below). Unfortunately, interviews and weddings are not considered university-excused absences.

The attendance/punctuality policy for the semester is as follows:

<table>
<thead>
<tr>
<th>(Not university excused:)</th>
<th>(Arriving late to class:)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Absence: 5 points</td>
<td>1st Time: 4 points</td>
</tr>
<tr>
<td>2nd Absence: 10 points</td>
<td>2nd Time: 7 points</td>
</tr>
<tr>
<td>3rd Absence: 15 points</td>
<td>3rd Time: 10 points</td>
</tr>
</tbody>
</table>

Assigned papers will always be due at the beginning of class. Many times you will be required to bring two copies.
Important: To ensure that you receive the maximum number of points, always arrive in class at least five minutes early. On the days that you are scheduled to speak, arrive earlier to ensure that your slides are loaded on the computer correctly, etc. On speaking days, I will close both doors when class begins. DO NOT come in after the doors are closed.

ASSIGNMENT MAKE-UP POLICY

If an absence is excused, the student will be allowed to make up the assignments. The assignments will be due on the day you return.

To be excused, the student must notify one of the instructors in writing (acknowledged e-mail message is acceptable) prior to the date of absence, and provide appropriate documentation for the absence. In cases where advance 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. 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.

Excused Absences Defined by Texas A&M University
7.2.2.1 Personal injury or Illness that is too severe or contagious for the student to attend class.
7.2.2.2 Death or major illness in a student’s immediate family. Immediate family may include: parents, siblings, grandparents, spouse, child, spouse’s child, spouse’s parents, spouse’s grandparents, step-parents, step- siblings, step-grandparents, grandchild, step-grandchild, legal guardian, and others as deemed appropriate by faculty member or student’s academic dean or designee.
7.2.2.3 Illness of a dependent family member.
7.2.2.4 Participation in legal or governmental proceedings that require a student’s presence and that cannot be rescheduled.
7.2.2.5 Graduate or professional school interviews which are mandatory, and fixed date by university/school policy, which cannot be rescheduled.
7.2.2.6 Mandatory interviews for permanent, full-time employment or full-time internships (including those that are part of a cooperative education program) that have a duration of at least 10 weeks, provided that such interviews are related to the student’s academic program and provided that the interviews are fixed date by employer policy and cannot be rescheduled. A student may not request excused absences for employment or internship interviews for more than one scheduled class meeting in one academic term.
7.2.2.7 Presentation of research or scholarship at a professional conference related to the student’s academic program, provided that the student is a presenter.
7.2.2.8 Participation in an activity appearing on the university authorized activity list. (see List of Authorized and Sponsored Activities)
7.2.2.9 Mandatory participation as a student athlete in NCAA-sanctioned competition.

MAYS COMMUNICATION LAB

The Mays Communication Lab is a resource that is open to current business students and is conveniently located in Mays Room 239. (Phone: 979.862.2983) Peer consultants are trained to help you identify strengths and weaknesses of your written and oral communication. After leaving the lab, continue to proof your paper according to class/textbook guidelines. Consultations are by appointment, but walk-ins are available on a first come, first served basis. See the website at mays.tamu.edu/commlab for hours or to book an appointment.

In addition, the Texas A&M University Writing Centers on both the main and west campus provide an excellent resource for students. (Website: http: writingcenter.tamu.edu Phone: 979.458.1455)

eCAMPUS

eCampus will be used for this class. Many class items (grades, any supplemental information, etc.) will be uploaded to eCampus. We will also make announcements to the all sections through eCampus. Please check eCampus every day for any announcements pertaining to our class.

COURSE SCHEDULE (subject to change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 27th</td>
<td>Introduction to Business Communication</td>
</tr>
<tr>
<td>August 29th</td>
<td>Writing Assignment #1</td>
</tr>
<tr>
<td>September 3rd</td>
<td>Improv Games</td>
</tr>
<tr>
<td>September 5th</td>
<td>The Writing Process; Standard English Usage Quiz 1</td>
</tr>
<tr>
<td>September 10th</td>
<td>Impromptu Speeches (with feedback)</td>
</tr>
<tr>
<td>September 12th</td>
<td>Writing with conciseness and clarity</td>
</tr>
<tr>
<td>September 17th</td>
<td>Impromptu Speeches (with feedback)</td>
</tr>
<tr>
<td>September 19th</td>
<td>In-class Writing Assignment #2</td>
</tr>
<tr>
<td>September 24th</td>
<td>Team Project (Round 1)</td>
</tr>
<tr>
<td>September 26th</td>
<td>Organizing business documents</td>
</tr>
<tr>
<td>October 1st</td>
<td>Team Project (Round 2)</td>
</tr>
<tr>
<td>October 3rd</td>
<td>Critical thinking and writing</td>
</tr>
<tr>
<td>October 8th</td>
<td>Team Project (Round 3)</td>
</tr>
<tr>
<td>October 10th</td>
<td>Format and document design</td>
</tr>
<tr>
<td>October 15th</td>
<td>Team Project (Final Round)</td>
</tr>
<tr>
<td>October 17th</td>
<td>Revising and editing your writing</td>
</tr>
<tr>
<td>October 22nd</td>
<td>Team Project (Final Round)</td>
</tr>
<tr>
<td>October 24th</td>
<td>Word choice</td>
</tr>
<tr>
<td>October 29th</td>
<td>Team Project (Final Round) &amp; Final Thoughts</td>
</tr>
<tr>
<td>October 31st</td>
<td>Grammar and Punctuation Quiz 2</td>
</tr>
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</table>
Core Curriculum Management

New Core Component Proposal

Date Submitted: 09/30/19 11:28 am

Viewing: ARCH 305-C: Architectural Design III

Last edit: 10/03/19 11:06 am

Changes proposed by: nklein

Contact(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelley Holliday</td>
<td><a href="mailto:sholliday@tamu.edu">sholliday@tamu.edu</a></td>
<td>979-845-7885</td>
</tr>
<tr>
<td>Michael O'Brien</td>
<td><a href="mailto:mjobrien@tamu.edu">mjobrien@tamu.edu</a></td>
<td>9798456719</td>
</tr>
</tbody>
</table>

Course Prefix: ARCH  
Course Number: 305

Academic Level: UG

Complete Course Title: Architectural Design III

Abbreviated Course Title: ARCH DESIGN III

Crosslisted With: 

Semester Credit: 5

Hour(s): 

Proposal for:
Communication Designation

Communication Designation

Number of credits offered for C sections of course: 5

Number of Sections per Academic Year: 8

Enrollment per Section (Avg.): 16

If the course is a variable topics course (e.g., 289, 489, 291, or a course that regularly changes in topic such as "Studies in Rhetoric"), how will the department ensure that the course consistently meets the requirements for a C course?

this is not a variable topics course

Do any assistants (i.e., GATs or undergraduates) help with the course?

Yes

How many?

one

Who will evaluate the writing and speaking assignments?

Instructors of each section will give final grades on written, oral and design communication assignments.
If you are working with assistants (graduate or undergraduate included), briefly explain how you will monitor and supervise their work and what roles they will play in the teaching of communication. If they help with grading, explain how you will ensure consistency and oversight of grading (e.g., rubrics).

In addition, one GAT will be assigned per semester to assist all instructors. The GAT will support the faculty evaluation and consultation on writing submittals and support the evaluation of spoken presentation.

Pick a syllabus statement:

To pass this course, you must pass the writing and speaking components. NOTE: In this case the student will receive a failing grade.

List all graded writing and speaking assignments along with the approximate word count or length of time speaking of each. For speaking assignments, put 0 in the word count box. For writing put 0 in the length of speaking assignment box. (Note that for most 12-point fonts there are about 250 words on a page if double-spaced and 500 if single-spaced.) In addition, list the percentage of the final grade each assignment represents.

<table>
<thead>
<tr>
<th>Writing/Speaking Assignment</th>
<th>Word count</th>
<th>Length of Speaking Assignment</th>
<th>% of Final Grade</th>
<th>Collaborative?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Written Program submitted for grading that includes: A cover page; An executive summary</td>
<td>1000</td>
<td>0</td>
<td>10</td>
<td>Yes</td>
</tr>
<tr>
<td>of Owner's Purpose, architects values, listing of spaces and sizes, total square footage;</td>
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<tr>
<td>A bullet point page describing each space use, the users, the amount of time users are in</td>
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<tr>
<td>the space, the furniture, fixtures and equipment for the space, and the character of</td>
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<tr>
<td>lighting and surfaces for the space including a dimensioned diagram and area; and 4 case</td>
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<tr>
<td>studies summarized (not plagiarized) for key aspects relevant to your project location,</td>
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<tr>
<td>typology, and architectural direction and explain why each is relevant to this project.</td>
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<tr>
<td>A 1,000 word or more written script spoken for a 15 minute presentation presented at the</td>
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<tr>
<td>midterm presentation (this will be team member #1’s responsibility).</td>
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<td>15</td>
<td>10</td>
<td>No</td>
</tr>
<tr>
<td>A 1,000 word or more written script spoken for a 15 minute team presentation presented</td>
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</tr>
<tr>
<td>a the semesters end presentation (this will be team member #2 responsibility).</td>
<td>1000</td>
<td>15</td>
<td>10</td>
<td>No</td>
</tr>
<tr>
<td>A written 500 word or more document explaining your choice of structural system and its</td>
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<tr>
<td>implementation in the design (why choose this? Why arrange it as you have done? How is it</td>
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<tr>
<td>relevant to the purposes, values, and goals described in the program?). This is team</td>
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<tr>
<td>member #1’s responsibility,</td>
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<tr>
<td>A written 500 word or more document explaining your choice of mechanical system and its</td>
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<tr>
<td>implementation in the design (why choose this? Why arrange it as you have done? How is it</td>
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<tr>
<td>relevant to the purposes, values, and goals described in the program?). This is team</td>
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<tr>
<td>member number 2’s responsibility,</td>
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<tr>
<td>Posters: Drawings plus associated Logic (posters 500 words + architectural drawings/diagrams) to demonstrate Visual Communication</td>
<td>500</td>
<td>0</td>
<td>50</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Add the total of the word count, length of speaking assignment, and % of final grade here.

<table>
<thead>
<tr>
<th>Total Word Count</th>
<th>Total Length of Speaking Assignment</th>
<th>Total % of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>4500</td>
<td>30</td>
<td>85</td>
</tr>
</tbody>
</table>

Explain how collaboration is monitored to ensure equal participation.

Desk Critiques (with team of 2) along with pin-ups of work (of the entire section) will occur 2-3 times per week with the Instructor and GAT. This ensures monitoring of collaboration and encouragement of equal participation. Individual meetings will also occur during semester for evaluation of collaboration.
Describe the formative feedback provided on student writing and speaking, especially on major assignments. Formative feedback is feedback given before a grade is assigned. You can meet this requirement with comments on drafts (including slides or speech outlines), practice delivery of speeches, or peer review done before the final product is graded, or you can give feedback on graded writing or speaking if there are 5 or more assignments in the same genre.

Prior to submitting their final assignments, students will receive oral and written feedback from the instructor and their peers on a weekly basis. This feedback will consist of individual/team desk crits, class pin-ups of student work, and peer review of PowerPoint presentations in small groups. There will also be two formal reviews of student work by invited professionals. One of these reviews will occur at mid-term and one at the final review. Before Mid-term and Final Reviews full sized mockup and script will be reviewed before the presentation, this will be by the instructor, GAT, and peer reviewed.

Describe how you provide writing and speaking instruction.

Instructors will provide class instruction and critique on writing, oral and design communication typically in the form of lectures, PowerPoint presentations and assigned readings. Assigned readings on design communication ad writing will be specific to the field and general. Students will see model examples of work by professionals in the field, as well as by their peer-level (from previous semesters). Collaboration on research and the design process through informal discussions of student work (desk crits in small groups and class pin-ups) will constitute a major part of the student’ learning process.

Additional Comments

Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.

Attach Course Syllabus  ARCH 305 Syllabus.pdf

Reviewer Comments  Donna Pantel (dpantel) (10/10/19 3:25 pm): REPORT ON RECERTIFICATION OF C COURSE: ARCH 305 We recommend that ARCH 305 Architectural Design III be certified as a Communication (C) course for four academic years (9/19 to 9/23). We have reviewed a representative syllabus and have determined that the course meets or exceeds the following criteria: (1) 85% of the final grade is based on writing and speaking quality; (2) the total number of words is 4500; (3) the total minutes of performance is 30; (4) the instructor to student ratio is 1:8; and (5) the assigned writing and speaking are appropriate to the major. ARCH 305 is a 5-credit course. A graduate assistant helps with the course, and the course is grandfathered to allow some collaborative work. Students collaboratively write a program and a poster; individually, they write a script for a presentation, a paper on choice of a structural system for their design, a paper on choice of a mechanical system for their design. Each student delivers the two scripts in a presentation. Students get weekly critiques of all their work before it is submitted, and at mid-term and finals there will be reviews by professionals from outside the class. Instruction includes readings on design communication, models (both student and professional), and small group critiques.

Key: 1122
Course title and number: ARCH 305 – 931 Architecture Design IV
Term (e.g., Fall 200X): Fall 2019
Meeting times and location: 8:00 – 8:49 MWF, 8:50-11:10 MWF

Course Description and Prerequisites
Architectural Design III. (2-9). Credit 5. A comprehensive design studio focused on the integration of design theory with functionally sustainable environmental and structural systems; consideration of a project from site analysis and programming through design detailing. Prerequisites: Admission to upper level in environmental design; ARCH 249, ARCH 250. ARCH 305 is required to be a “C” course by the departmental curriculum. To pass this course you must pass the writing components.

5.000 Credit hours
2.000 Lecture hours
9.000 Lab hours

Agreement: By remaining in this class after the Sept. 2 Drop/Add date, you certify that you have completed the prerequisites for the class and agree that only work completed between the first and last day of class (work stops Nov. 24) will be the basis for your grade unless otherwise pre-arranged under the terms of the student rules.

Learning Outcomes

Upon completing this course, the student will be able to:
1. Recognize the components making up life safety, accessibility, structural and mechanical systems in the context of an architectural project.
2. Understand the morphology of a building type and its relevance to contemporary culture
3. Apply the contemporary codes and standards for health safety and welfare of the general public within the context of an architectural project. Apply systems thinking to the questions of structure, environmental systems and sustainability within the context of an architectural project.
4. Analyze the physical and natural context and site to establish criteria and limits for the architectural project.
5. Assess alternative schemes quantitatively against the criteria and limits established for the architectural project.
6. Create an architectural project which transforms the local expectations of the type towards increased relevance to the contemporary culture, community and site, documenting the urban, life safety, structural, mechanical, sustainable and constructive aspects of the proposal.

Evidence of the successful attainment of these outcomes will be assessed during in-studio discussions, submittals and juried reviews of the student’s work at the middle and end of the semester. These presentations will be comprised of a specified set of graphic and three-dimensional documentation elements, presented verbally by the student to the jury. The instructor will use desk critiques to continuously monitor and critique the student’s progress toward these goals during regular class time throughout the semester.

The following is a partial list of the above-mentioned submittals
- Site Analysis of the physical, natural and cultural aspects of the site and surroundings concluding in criteria and limits for the architectural project.
- Develop a program booklet for a give functional type that includes all functional and service areas built around required occupancies and FFE concluding in criteria and limits that must be
attained/recognized in the architectural project.

- Alternative 3-dimensional conceptual parti diagrams to be assessed by criteria, limits and characteristics developed in the program and site analysis
- Building code review document for the functional type as it applies to the site conditions, deploy enclosed fire stairs, upper and lower floor egress paths, and construction separations as required by code.
- Three-dimensional diagram of spaces and spatial relationships based on clear spatial integrating spaces vertically and horizontally.
- Plan of the urban floor extending across adjacent streets and including adjacent buildings
- Sections and elevations extending across adjacent streets and indicating amount of transparent/opaque surfaces in compliance with Texas Energy Code
- Spatial views of public user experiences
- Structural strategies model and diagram and rationale for each floor above and below grade showing vertical load paths from roof to grade, approximate spanning depth and direction, and locations for lateral resistance.
- Mechanical strategies diagram and rationale for central building heat and cooling production, fresh air introduction, and approximate distribution paths.
- Wall sections demonstrating water, vapor and thermal control strategies in the building envelope at walls and roof integrated with interior and exterior material choices.
- Develop graphical and verbal presentations that connect the functional issues, site issues, climate issues and parti to the schematic design set of drawings and models.
- Meet the speaking and writing expectations of a University-approved “C” course.

Expectations: You will need to meet the following expectations to be considered for a passing grade:

- You will attend and participate in all meetings of the class for the full duration of the class. (working in the studio during studio hours) within the guidelines for student rules.
- You will participate in all studio reviews, pin-ups and presentations (including midterm and final presentations)
- You will attend and participate in all departmental visiting lectures.
- You will meet all Texas A&M student rules in terms of honor, conduct, integrity, and classroom behavior
- You will complete and submit all deliverables on time.
- You will maintain a small first-aid kit at your studio desk.
- You will refrain from operating shop-type tools (drills, saws, grinders, hammers, Sanders) at your studio desk and conduct these processes in the shop.
- You will refrain from conducting wet casting processes (plaster, concrete, leveling concrete) in the studio and conduct these processes outside on a tarp that you provide and will cleanup after yourself.
- You will refrain from conducting solvent based painting or staining operations in the studio (watercolor ok) and conduct these processes outside on a tarp that you provide and will clean up after yourself.
- You will clean up after yourself in the studio and maintain your workspace in a manner expected of a professional.
- You will clean up your studio space and move out of your studio space by the first day of exam week. Failure to comply will result in no grade being issued.
- You will turn in a pdf file containing your midterm presentation and your final presentation boards and model photos.
- All studio desks must be covered. In addition, students must have at minimum an 18” x 24” cutting mat at their desk.

“C” course goals:

- Texas A&M students will write and speak in public with proficiency upon graduation. Proficiency requires a solid knowledge of rhetorical concepts such as audience awareness and the ability to match language to the occasion or type of document being produced. A proficient communicator argues well, thinks critically, and solves problems. A proficient communicator can analyze,
evaluate, and synthesize information from various sources; document and cite properly; and organize text logically. Skill with grammar, mechanics, format, and usage is required.

- **Texas A&M students will master the forms of writing and speaking most commonly associated with and essential to their major field of study.** Proficiency in communication cannot be achieved all at once, during a single, First-Year English or speech course, but must be acquired through practice over time, for many different audiences, in different situations, and in different genres. Because writing conventions and ways of communicating vary somewhat from discipline to discipline, novice communicators need the guidance of experienced writers in the disciplinary communities they aspire to join.

- **Texas A&M students will understand that proficiency in writing and speaking requires practice and an investment of time and energy.** Experienced writers produce multiple drafts, edit and proofread, and participate in reviews and critiques of their work. Good prose and fluent speaking require the investment of time and effort.

(Source: https://writingcenter.tamu.edu/Advisors/W-C-Course-Facts)

"C" course university requirements:

- be offered for at least one credit
- include writing and public speaking or other oral communication related to the major
- provide instruction in writing and speaking and formative feedback that allows improvement of some major assignments
- base part of the final course grade on writing or speaking quality (at least 25% for a 4-credit course, 33% for a 3-credit course, 50% for a 2-credit course and 70% for a 1-credit course)
- assign at least 1250 words of finished, graded writing and 5 minutes of oral communication

"C" Course deliverables for ARCH 305

1. A written program submitted for grading by Friday of week 2 to include:
   - A cover page
   - An executive summary of owner’s purpose, architects values, listing of spaces and sizes, total square footage.
   - A bullet point page describing each space use, the users, the amount of time users are in the space, the furniture, fixtures and equipment for the space, and the character of lighting and surfaces for the space. (include a dimensioned diagram and area)
   - 4 case studies summarized (not plagiarized) for key aspects relevant to your project location, typology, and architectural direction. Explain why each is relevant to this project.
2. A 1,000 word or more written script spoken, for a 15-minute team presentation presented at the midterm presentation. (team member #1 leads)
3. A 1,000 word or more written script spoken, for a 10-minute team presentation presented at the semesters end presentation. (team member #2 leads)
4. A written 500 word or more document explaining your choice of structural system and its implementation in the design. (Why choose this? Why arrange it as you’ve done? How is it relevant to the purposes, values, and goals described in the program?)
5. A written 500 word or more document explaining your choice of mechanical system and its implementation in the design. (Why choose this? Why arrange it as you’ve done? How is it relevant to the purposes, values, and goals described in the program?)
Time Management

The calendar below is shown to facilitate your understanding of due dates.

The semester is structured to support your steady progress towards completing the semester with the goal of reducing or eliminating "crunch" times. To this end, it is important that all the work you do be "presentable" which doesn't mean plotted, colored renderings or full 3d BIM models at every step. Sketches, freehand scaled drawings, sketch models, diagrams should all be considered at each submittal stage and are an excellent backup strategy in case printers/plotters/computers fail. Have a rough draft of your presentation in hand three days before the final presentation, that way, if the electronics fail, you can still meet the course obligation to present.

You drive your own design. I will ask you about how you might resolve issues, or the basis for what you have done. I won't "prevent" you from going in a direction that may receive strong criticism in reviews, but will advise you to be prepared. Your designs and the resolution of the designs from a professional perspective are your responsibility. I'll help you accomplish your goals any way I can.

You should plan for at least one and a half hours of time outside of studio hours for each hour of studio per week. This means for our 9 hours of studio, you should budget, and invest 13.5 hours of additional time on studio work per week. I strongly recommend that you NOT try to put the outside hours together at the end of the semester to crunch out your work. Generally, it's not productive to try and put a few hundred hours of work in a single week. That's what the interim due dates for deliverables are all about.

Deliverables (drawings, models and powerpoints) for midterm and for the final presentation must be on your desk at 5:50 p.m. on the day before the presentations. The goal here is that you all get some sleep to make the best presentation possible.

Presentations will begin at 8:00 A.M., work must be on the walls prior to the start time to make the most effective use of visiting reviewer’s time.

Grading Policies

Students should refer to the Academic section in Student Rules and Regulations http://student-rules.tamu.edu.

Instructor Grading Policy

- “C” course deliverables will account for 25% of the course grade. To pass this course you must pass the writing components.
- Design submittals will account for 75% of the course grade.
- Two design submittal grades will be given, one, a midterm grade issued following submittal of deliverables in week 7. This grade will constitute 30% of the design submittal semester grade. Two, the design submittal second grade will be based on work completed and submitted as weekly deliverables and a final presentation and deliverables constituting 70% of the design submittal semester grade based on the work from the 8th week through last day of class, Dec. 7. To earn a passing grade all submission of all deliverables and participation in all studio presentations are required.
- Grading will be qualitative and based on the completed projects and on deliverables submitted per the attached schedule
- Qualitative grades will be guided by the grading guideline shown below.

Grading rubric: (please note that not all the following characteristics will be assigned, individual initiative is required to demonstrate the presence of many of the following characteristics.)

A student’s work may be considered for an Excellent (A) grade when the following characteristics are visibly evident in the work:
The weekly deliverables have been completed and submitted on-time (late submittals may lose 1 letter grade) and are clearly identified with the student’s name, course number, and semester.

Care in presentation of interim deliverables is apparent (page size, page layout, no spelling or math errors.)

Design meets current IBC & ADA for Life-Safety and Accessibility

Design provides for the collection and storage of rainwater and greywater for irrigation use.

Alternative schemes demonstrate the investigation of alternative points of view about the subject, not simple derivations of a single scheme.

The projects are not formally compromised

The projects demonstrate the result of insights learned from program, precedents, context, and site analysis.

The work demonstrates a range of media employed to present specific aspects of the character of the work.

The work demonstrates a range of scales of inquiry from detail to component to an overall whole.

The alternatives are presented in the context of the site (extending at least the dimension of the parcel in all directions) and climate (shadows)

The alternatives demonstrate the development of a single train of thought across program, core, structure, and envelope.

Relevant historical precedents play a meaningful part of your study (and are included in each deliverable).

Sustainable characteristics of the alternatives (in terms of LEED NC) are described in each deliverable.

Other Pertinent Grading Information (Rubric Included)

Letter grades will be assigned according to the following guideline:
A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = 59 and below.

“C” course deliverables will account for 25% of the course grade.

Design submittals will account for 75% of the course grade.

Any questions about grades or scores to be conducted in person, please contact me at mjobrien@tamu.edu for an appointment.

Urban floor plan review rubric 100 pts.
1. 10pts: Plans submitted on time as printouts at 1”=20’
2. 10pts: Plan shows graphic scale, north arrow and team member names
3. 10pts: Plan shows site in floor plan view of project and adjacent structures for 100’ in each direction
4. 10pts: Plan shows access points for service, parking, visitors, pedestrians, cyclists
5. 10pts: Plan shows dumpster enclosures, bike rack locations, parking spaces
6. 10pts: Plan shows low water landscape elements and cistern location
7. 10pts: Plan shows exterior seating, shading, solar energy generation equipment and amenities
8. 10pts: Plan shows clear entry path and exterior surface development
9. 10pts: Plan shows shades and shadows of the building on site accurately projected for June 21
10. 10pts: Plan shows a complimentary design for the park across 28th street.

Plan review rubric 100 pts.
1. 10pts: Plans submitted on time as printouts at 1/8”=1’-0”
2. 10pts: Plans show clear paths of egress without dead end corridors, and have two enclosed stairs per floor for egress.
3. 10pts: Fire stairs show appropriate width and length for floor to floor height
4. 10pts: Plan shows all doorswings, and correct direction of swing for egress
5. 10pts: Plan shows column/bearing wall placement and alignment floor to floor
6. 10pts: Plan shows all dashed lines for overhangs, openings above, and section cut lines
7. 10pts: Plan shows scale and directionality of floor materials indoors and out
8. 10pts: Plan shows site development extending to curb-line
9. 10pts: Plan shows all furniture and equipment to scale in the spaces
10. 10pts: Plan shows graphic scale, north arrow and team member names

Section review rubric 100 pts.
1. 10pts: Sections submitted on time with two transverse sections at 1/8” =1’-0” and one longitudinal section at 1/16”=1'-0”
2. 10pts: Sections show approximate structural thickness of members as indicated in the architects’ studio companion for the span.
3. 10pts: all Sections extend to street/alley centerlines and property lines
4. 10pts: Sections show differentiated thickness between roof and floors
5. 10pts: Sections show ground line 8” below first floor line
6. 10pts: Sections show distinct line-weight differences between ceiling and structure
7. 10pts: Sections show major vertical spaces
8. 10pts: Sections include scale figures and adjacent structures
9. 10pts: Sections include shade and shadows from correct sun angle on June 21
10. 10pts: Sections include, team member names and key plan showing cut line

Systems diagrams review rubric 100 pts.
1. 20pts: Structural framing plans for the lowest floor, all intermediate levels and the roof showing points of support (column/wall) spanning elements (joists, beams, girders, trusses) and approximate depth dimensions for spanning elements, and locations of lateral bracing (chevron, “X”, or shear walls). Physical model of the building structural system in basswood at 1/8”=1'-0” (not laser cut or 3d printed).
2. 20pts: Mechanical systems plans showing location of indoor and outdoor equipment, vertical supply and return air shafts, horizontal runs for supply and return air, locations of zonable control equipment (mixing boxes or vrf cassettes).
3. 20pts: Life safety systems showing locations of protected egress paths, dead end corridor lengths, fire stairs, door swings on each occupiable level of the design.
4. 20pts: Accessibility system showing accessible path from parking, drop off, turning radii in restrooms, offices and other small occupiable spaces, ramp locations, slopes for ramps and sloped walks, elevator locations and seated sight lines in auditorium and gathering spaces.
5. 20pts: Sustainability systems showing locations and sizes for cisterns, photovoltaic panels, exit/entry vestibules, wall and roof assemblies with appropriate materials and thicknesses to meet “R” value requirements, percentage of transparent to opaque surfaces on each façade and roof, listing of net assignable square footage and gross building area square footage, and listing of sustainably sourced materials.

Midterm and Final presentation review rubric 100 pts.
1. 20pts: Written scripts submitted one week prior to presentation.
2. 20pts: Spoken presentation follows script and adjusts to audience questions and concerns
3. 20pts: Presentation design for drawings mocked up in black and white and printed out at half size 3 days prior to midterm presentation.
4. 20pts: Presentation design for drawings mocked up in black and white and printed out at FULL size 3 days prior to final presentation.
5. 20pts: Professionalism / engagement in colleagues presentations (not missing, not on your phone)

Additional rubrics to be provided with assignments

Required and Suggested Reading and Reference Materials:
Textbook/resource material listing
Required: HAVE THIS AVAILABLE AT YOUR DESK
“The Architect’s Studio Companion”, Edward Allen, Joseph Iano, (any edition, the more recent the better) newest edition listed at $63. at Amazon, $10.00 and up at ABE.com.


The Bedford Handbook, Hacker, Diana Published by Bedford/st Martins $3.32 at ABE.com

**Recommended for purchase:**

“Thinking Architecture”, Peter Zumthor, Birkhauser. Either new or used, Amazon lists at $22.40


**Reporting Technical Information (any edition.)**

Kenneth W. Houp, Thomas E. Pearsall, Elizabeth Tebeaux, Sam Dragga

**Online Resources:**

Electrical Load Calculator:

Photovoltaic System Calculator:
- http://www.solarpower.org/art18.html

Battery and PV system Calculator:

Americans with Disabilities Act Accessibility Guidelines

2030 Challenge:
- http://www.architecture2030.org/

Rainwater Storage Calculator

General facility space standards
- http://leasing.state.wi.us/docview.asp?docid=21563&locid=111

Whole Building Design Guide (NIBS)
- http://www.wbdg.org/design/physical_fit.php

The Deep Dive
**Course Topics, Calendar of Activities, Major Assignment Dates**

*Schedule:* We anticipate the following schedule for the semester:

<table>
<thead>
<tr>
<th>week</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.26 Syllabus review, sketching</td>
<td><em>Syllabus quiz</em> Program and <em>Programme</em></td>
<td>Site and climate study</td>
</tr>
<tr>
<td>2</td>
<td>9.2 Site and climate conclusions (*&quot;must do's&quot;) deliverable due 3:30</td>
<td>Program and Site</td>
<td>Concept charrette Written program booklet due</td>
</tr>
<tr>
<td>3</td>
<td>9.7 Charrette presentation</td>
<td>Program document mod (due)</td>
<td>Concept scaleup: Codes talk</td>
</tr>
<tr>
<td>4</td>
<td>9.16 College Research Symposium, No Class</td>
<td>Building Planning: Codes / life safety and access diagram (due)</td>
<td>Life safety and ADA axonometric due</td>
</tr>
<tr>
<td>5</td>
<td>9.23 “Aboutness” Statement Schematic Design</td>
<td>Schematic Design</td>
<td>Schematic Design set (due) Systems description due</td>
</tr>
<tr>
<td>6</td>
<td>9.30 Structural components ½ size mockup and presentation script due</td>
<td>Structural components</td>
<td>Structural description Bones model 1/8&quot;=1'-0&quot; (due)</td>
</tr>
<tr>
<td>7</td>
<td>10.7 <strong>MIDTERM PRESENTATIONS</strong></td>
<td><strong>MIDTERM PRESENTATIONS</strong></td>
<td><strong>MIDTERM PRESENTATIONS</strong></td>
</tr>
<tr>
<td>8</td>
<td>10.14 Revisions/site plan</td>
<td>Revisions floor plan</td>
<td>Revisions sections</td>
</tr>
<tr>
<td>9</td>
<td>10.21 Design development</td>
<td>D.D. floor and site</td>
<td>D.D. floor and site plans due</td>
</tr>
<tr>
<td>10</td>
<td>10.28 Sections transverse Sections longitudinal</td>
<td>Sections (due)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>11.4 Elevations/shading, Wall sections</td>
<td>Elevations/shading Wall sections</td>
<td>Elevations shading (due) Wall sections</td>
</tr>
<tr>
<td>12</td>
<td>11.11 Major space 1 dev</td>
<td>Major space 1 dev</td>
<td>Major space 1</td>
</tr>
<tr>
<td>13</td>
<td>11.18 Bonfire remembrance, No Class</td>
<td>Production</td>
<td>Production</td>
</tr>
<tr>
<td>14</td>
<td>11.25 <strong>FULL SIZE B&amp;W MOCKUP &amp; SCRIPT for PRESENTATION DUE</strong></td>
<td>Reading day No Class</td>
<td><strong>Thanksgiving break</strong></td>
</tr>
<tr>
<td>15</td>
<td>12.2 Redefined Friday <strong>PRESENTATIONS</strong></td>
<td>LAST DAY OF CLASS: <strong>PRESENTATIONS</strong></td>
<td></td>
</tr>
</tbody>
</table>

305 presentations (required) MONDAY, (12/2) WEDNESDAY (12/4) or as scheduled by the Department. Final submittal of pdf document with all drawings, in two folders, one titled (midterm presentation) and one titled (final presentations) due by 5P.M. on the last day of classes.
Other Pertinent Course Information

Attendance Policy

See Student Rule 7: https://student-rules.tamu.edu/rule07/

Class attendance and participation is an individual student responsibility. Students taking traditional face-to-face courses are expected to attend class and to complete all assignments by stated due dates. Instructors are expected to provide notice of the dates on which major exams will be given and assignments will be due on the course syllabus, which must be made available by the first class period.

University excused absences do not relieve you 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.

- Be on time, be professional, external professionals may be invited to the studio at any time. If they are in studio, be prepared to briefly explain your concept, current progress, and current challenges.
- Budget for at least 3 full sized presentation printouts, one at midterm, one at mockup day, one for final presentation. Each may cost the team 2-3 hundred dollars, budge now. Assume, for budgeting, that your team will also be building a basswood model at 1/8” scale (structural bones) and making 11x17 printouts of plans and sections weekly.

Title IX

Title IX of the Education Amendment of 1972 prohibits discrimination on the basis of sex in educational programs and activities. Texas A&M University is committed to providing an environment of academic study and employment free from harassment and discrimination to all segments of its community, including faculty, staff, students, guests, and vendors. Texas A&M University will promptly address all complaints of discrimination, sexual harassment, sexual violence, and related retaliation in accordance with federal and state laws. Any employee who experiences observes or becomes aware of an act of discrimination, sexual harassment, sexual violence, or related retaliation must promptly report the incident to Texas A&M University’s Title IX Coordinator. More information on Title IX and reporting of these issues can be found at https://urc.tamu.edu/title-ix/.

Safe Learning Environment and Anti-Harassment Policy

As an instructor, one of my responsibilities is to help create a safe learning environment for my students and for the campus as a whole. We expect a culture of professionalism and mutual respect in our department and class. You may report any incident of discrimination or discriminatory harassment, including sexual harassment, to the Office of the Dean of Student Life. Please be aware that as a faculty member, I have the responsibility to report any instances of sexual harassment, sexual violence and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment or sexual violence to a confidential employee who does not have this reporting responsibility, please contact the Office of the Dean of Student Life.

Mental Health and Counseling

We are here for your success in school, and that goes beyond grades. Please know that staff at Counseling and Psychological Services (CAPS, https://caps.tamu.edu/) are available to provide those tools or help connect you to other offices or community resources that would be the best fit for your unique situation. The University Advancement Fee covers the majority of services at CAPS. Please reach out before you feel overwhelmed or get behind in your studies.

If you or someone you know is ever in a crisis situation, CAPS has crisis counselors available. M-F 8:00-5:00 Call 979-845-4427 or visit CAPS at White Creek (Bus Route 03 “Yell Practice”) After business hours and on weekends, call the Helpline at 979-845-2700 (V/TTY).
Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, currently located in the Disability Services building at the Student Services at 701 West Campus Blvd on west campus or call 979-845-1637. For additional information, visit http://disability.tamu.edu.

Academic Integrity

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

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit http://aggiehonor.tamu.edu/_. 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.”

Care of Facilities

Please respect your facilities in the College of Architecture (studio space, photo lab, shop, labs,...)

The use of spray paint, spray adhesive or other surface-altering materials is not permitted in the Langford Complex, except in designated zones (we do have a spray-booth-facilities located in our complex). Students who violate this rule will be liable for the expenses associated with repairing damaged building finishes and surfaces.

Throughout the semester and at the end of the semester, your area must be clean of all trash. You are responsible for cleaning your studio, desk and locker at the end of each semester.

No power tools may be used in the design studio. No dust or odor producing processes may be conducted in the studio. No wet casting processes may be conducted in the studio. The college shop and spray booth facilities must be used for the above-mentioned processes. Professional behavior and conduct is expected of each student.

All studio desks must be covered. In addition, students must have at minimum an 18” x 24” cutting mat at their desk.

Studio Policy (required of all studios)

All students, faculty, administration and staff of the Department of Architecture at Texas A&M University are dedicated to the principle that the Design Studio is the central component of an effective education in architecture. They are equally dedicated to the belief that students and faculty must lead balanced lives and use time wisely, including time outside the design studio, to gain from all aspects of a university education and world experiences. They also believe that design is the integration of many parts, that process is as important as product, and that the act of design and of professional practice is inherently interdisciplinary, requiring active and respectful collaboration with others.

Students and faculty in every design studio will embody the fundamental values of optimism, respect, sharing, engagement, and innovation. Every design studio will therefore encourage the rigorous exploration of ideas, diverse viewpoints, and the integration of all aspects of architecture (practical, theoretical, scientific, spiritual, and artistic), by providing a safe and supportive environment for thoughtful innovation. Every design studio will increase skills in professional communication, through drawing, modeling, writing and speaking.
Every design studio will, as part of the syllabus introduced at the start of each class, include a clear statement on time management, and recognition of the critical importance of academic and personal growth, inside and outside the studio environment. As such it will be expected that faculty members and students devote quality time to studio activities, while respecting the need to attend to the broad spectrum of the academic life. Every design studio will establish opportunities for timely and effective review of both process and products. Studio reviews will include student and faculty peer review. Where external reviewers are introduced, the design studio instructor will ensure that the visitors are aware of the Studio Culture Statement and recognize that the design critique is an integral part of the learning experience. The design studio will be recognized as place for open communication and movement, while respecting the needs of others, and of the facilities.

Important Links Below

Department of Architecture Website  http://dept.arch.tamu.edu/
Department Financial Assistance  http://dept.arch.tamu.edu/financial-assistance/
Academic Calendar  http://registrar.tamu.edu/general/calendar.aspx
Final Exam Schedule Online  http://registrar.tamu.edu/Courses,-Registration,-Scheduling/Final-Exam-Schedule
On-Line Catalog  http://catalog.tamu.edu
Student Rules  http://student-rules.tamu.edu/
Aggie Honor System Office  http://aggiehonor.tamu.edu/
Texas Society of Architects  https://texasarchitects.org/
American Institute of Architecture website  http://www.aia.org/index.htm
AIA Brazos (local chapter)  http://www.aiabrazos.org/
Project Vehicle:

We will walk to the site and discuss the project type on the first class day.
Core Curriculum Management

New Core Component Proposal

Date Submitted: 07/31/19 11:53 pm

Viewing: ISEN 460-C: Capstone Senior Design

Last edit: 07/31/19 11:53 pm

Changes proposed by: varezq

Contact(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jose Vazquez</td>
<td><a href="mailto:vazquez@tamu.edu">vazquez@tamu.edu</a></td>
<td>979-458-2385</td>
</tr>
</tbody>
</table>

Course Prefix  ISEN  Course Number  460
Academic Level UG
Complete Course Title Capstone Senior Design
Abbreviated Course Title CAPSTONE SENIOR DESIGN
Crosslisted With

Semester Credit 3
Hour(s)

Proposal for: Communication Designation

<table>
<thead>
<tr>
<th>Communication Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of credits offered for C sections of course</td>
</tr>
<tr>
<td>Number of Sections per Academic Year</td>
</tr>
<tr>
<td>Enrollment per Section (Avg.)</td>
</tr>
</tbody>
</table>

If the course is a variable topics course (e.g., 289, 489, 291, or a course that regularly changes in topic such as “Studies in Rhetoric”), how will the department ensure that the course consistently meets the requirements for a C course?

N/A

Do any assistants (i.e., GATs or undergraduates) help with the course?

Yes

How many?

3

Who will evaluate the writing and speaking assignments?

There are two faculty who teach this course. One of them evaluates the writing and speaking with the help of graduate student student workers. The graduate students write comments and assess some of the writing assignments, but the instructor decides the final grade.

If you are working with assistants (graduate or undergraduate included), briefly explain how you will monitor and supervise their work and what roles they will play in the teaching of communication. If they help with grading, explain how you will ensure consistency and oversight of grading (e.g., rubrics).

The grad students are primarily involved in the administrative coordination of scheduling classes and oversight of travel and requirement submissions. One graduate student will assist with grading writing assignments. The graduate students who assess writing undergo training with the writing instructor and calibrate before they grade any writing. When an assignment is submitted, each of the grad students involved in assessing writing, grades the first ten papers of any submission; the writing instructor views the assessments and provides the grad student feedback to help calibrate the student and himself to the assignment. The instructor reviews final grades and comments and makes adjustments as necessary.

Pick a syllabus statement:

To pass this course, you must pass the writing and speaking components. NOTE: In
this case the student will receive a failing grade.

List all graded writing and speaking assignments along with the approximate word count or length of time speaking of each. For speaking assignments, put 0 in the word count box. For writing put 0 in the length of speaking assignment box. (Note that for most 12-point fonts there are about 250 words on a page if double-spaced and 500 if single-spaced.) In addition, list the percentage of the final grade each assignment represents.

<table>
<thead>
<tr>
<th>Writing/Speaking Assignment</th>
<th>Word count</th>
<th>Length of Speaking Assignment</th>
<th>% of Final Grade</th>
<th>Collaborative?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S) Word Improvisation Exercise</td>
<td>0</td>
<td>.75</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>(S) 1st Presentation (Formative feedback)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>(S) 2d Presentation</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>No</td>
</tr>
<tr>
<td>(S) 3d Presentation</td>
<td>0</td>
<td>2.5</td>
<td>8</td>
<td>No</td>
</tr>
<tr>
<td>(S) 4th Presentation</td>
<td>0</td>
<td>3</td>
<td>14</td>
<td>No</td>
</tr>
<tr>
<td>(W) WA1 Formative Feedback Provided</td>
<td>250</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>(W) WA2 Revision of WA1 (250 + 100 word reflection)</td>
<td>350</td>
<td>0</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>(W) WA3 Presentation Text (300 + 100)</td>
<td>400</td>
<td>0</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>(W) WA4</td>
<td>400</td>
<td>0</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

Add the total of the word count, length of speaking assignment, and % of final grade here.

<table>
<thead>
<tr>
<th>Total Word Count</th>
<th>Total Length of Speaking Assignment</th>
<th>Total % of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,400</td>
<td>9.25</td>
<td>33</td>
</tr>
</tbody>
</table>

Explain how collaboration is monitored to ensure equal participation.

Writing assignments are not collaborative. Students present as a team, but each has a separate part of the presentation with a minimum time requirement, and the parts of the presentations rotate.

Describe the formative feedback provided on student writing and speaking, especially on major assignments. Formative feedback is feedback given before a grade is assigned. You can meet this requirement with comments on drafts (including slides or speech outlines), practice delivery of speeches, or peer review done before the final product is graded, or you can give feedback on graded writing or speaking if there are 5 or more assignments in the same genre.

After the first day, students start presenting each time they attend class. The first presentation is not graded, but formative feedback is provided on both their slides and presentations. Feedback includes the applicable rubrics, so they understand the comments/feedback within their context. They give three additional presentations after the first. Each one is graded with individual feedback provided by the communication and writing instructor. On Writing Assignment 1, formative feedback is provided on the draft.

Describe how you provide writing and speaking instruction.

Students in this class have already taken their first W course, so they know the standards and basics the writing/communication instructor applies to their work. Those standards along with the rubrics for the writing and presentations are reviewed with students. The majority of the first lecture is devoted to public speaking tips, preparation for a presentation, and slide design. The writing instructor maintains a list of teaching points and uses the opportunities provided by their presentations to address the topics on the list and ensure the topics are covered in all four class periods. Feedback is also provided on each writing assignment.

Additional Comments

From a management perspective, this is an incredibly complicated course because each team has a real project provided by a real sponsor and the variety of people and schedules that must be accommodated in achieving each project’s and the course’s goals.

Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.

Attach Course Syllabus

DONNA PANTEL (dpantel) (10/10/19 1:08 pm): REPORT ON RECERTIFICATION OF COURSE: ISEN 460 We recommend that ISEN 460 Capstone Senior Design be certified as a Communication (C) course for four academic years (1/20 to 1/24). We have reviewed a representative syllabus and have determined that the course meets or exceeds the following criteria: (1) 33% of the final grade is based on writing and speaking quality; (2) the total number of words is 1400; (3) the total minutes of performance is 9 (4) the instructor to student ratio is 1:25; and (5) the assigned writing and speaking are appropriate to the major. Students give four presentations and do a word improvisation exercise. They also complete four writing assignments, one of which is submitted in draft form and receives written instructor comments and is assessed with a rubric. For the speaking assignments, feedback occurs through comments on slides before delivery of the presentation. Standards for writing the specific course assignments are reviewed and lectures are given on speaking tips and slide design.

Reviewer Comments
1. Course Description and Prerequisites

Credits 3. 1 Lecture Hour. 6 Lab Hours.

Engineering design including identification of a problem; development, analysis and evaluation of alternative solutions; and recommendations for and, where possible, development of systems improvement tools; application of experience and training to provide a product or solution that helps company clients; balancing client needs with academic requirements.

Prerequisites: ISEN 210, ISEN 330, ISEN 340, ISEN 350, ISEN 355 and ISEN 370; junior or senior classification.

2. Course Objectives

The focus of this course is the project each team takes on for a client and enhancing each student’s communication skills. This is a “C” course, and by university policy, to pass the course you must pass the communications component no matter how high your technical grade is. Students in this course are also expected to demonstrate the ABET-based educational outcomes listed below:

- An ability to apply knowledge of mathematics, science, and engineering
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- An ability to function on multidisciplinary teams
- An ability to identify, formulate, and solve engineering problems
- An understanding of professional and ethical responsibility
- An ability to communicate effectively
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- A recognition of the need for, and an ability to engage in life-long learning
- A knowledge of contemporary issues
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

The project itself should be an exemplar of engineering design that includes

2.1 A clear adherence to the engineering design process that at a minimum follows these steps

a. Identify the need and constraints
b. Research the problem
c. Develop alternative solutions
d. Select a promising solution
e. Build a prototype/model
2. Test and evaluate the prototype/model
   g. Redesign as needed;

2.2 A thorough review of design standards such as
   a. OSHA
   b. EPA
   c. FDA
   d. IEEE
   f. ISO 9000; and

2.3 Consideration of applicable constraints like
   a. economic factors,
   b. health and safety,
   c. reliability,
   d. aesthetics,
   e. ethics,
   f. political and social impact,
   g. manufacturability,
   h. sustainability
   i. cost, and
   j. people.

3. Teaching Team Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Instructor</th>
<th>Instructor</th>
<th>Lead TA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone number</td>
<td>Prof. Hamid Parsei</td>
<td>Jose Vazquez</td>
<td>Barton Mahaffey</td>
</tr>
<tr>
<td>Email address</td>
<td>TBD</td>
<td>TBD</td>
<td><a href="mailto:vazquez@tamu.edu">vazquez@tamu.edu</a></td>
</tr>
<tr>
<td>Office hours</td>
<td>TBD</td>
<td>MW 1100-1400</td>
<td>ETB 3030</td>
</tr>
</tbody>
</table>

4. Textbook and/or Resource Material

There is no textbook for this course and resource materials are project dependent.

5. Grading Policies

5.1 The student rules regarding academics can be found at [http://student-rules.tamu.edu](http://student-rules.tamu.edu).

5.2 Class attendance is graded. “On time” means present, seated, and ready to go when the instructor starts class. “Close” does not count; the TA’s or the instructor’s decision of whether or not you met this standard on a particular day is final.

5.2 Grades are not negotiable and will not be rounded up.

5.3 Most submissions will be via eCampus and Turnitin. It is an individual responsibility to upload a submission before the due date and time and to ensure the upload was successful. Turnitin will provide a confirmation email within 10 minutes of the upload. If the email is not received, then the student should resubmit. If the student does not follow this process and discovers the unsuccessful upload too late to fix it, the teaching team (faculty or TAs) will not consider discussions about any aspect of this process and screen shots of papers, desktops, etc., will also not be considered. A paper is either submitted on time or it is not. A 20-point late penalty will accrue for each 24-hour period the submission is late. At 48 hours + 1 second, the grade for a late submission is a “0.”

**Note:** Pay attention to your absences and late arrivals. They often chip away at a student’s grade and lower it to a “B.”
6. Grading Scale

Grades assigned¹:
A: 89.5%–100%,
B: 79.5%–89.49%,
C: 69.5%–79.49%,
D: 59.5%–69.49%,
F: less than 59.49%.

Course content’s contribution to the final grade

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications</td>
<td>33%</td>
<td>(Presentations 27%; writing 5%)</td>
</tr>
<tr>
<td>Team Ranking²</td>
<td>12%</td>
<td>(Teaching team’s and faculty advisor’s wholistic assessment of the team’)</td>
</tr>
<tr>
<td>Proposal³</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Technical Requirements</td>
<td>10%</td>
<td>(Progress reports, weekly meetings)</td>
</tr>
<tr>
<td>Final Report³</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Video³</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Professionalism</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Peer Review</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

¹ The distribution provided is the MINIMUM numeric requirement to GUARANTEE the corresponding letter grade.
² Attendance is a factor in these categories.
³ The team’s grade is not automatically allocated to every team member. Peer feedback, faculty advisor's input, and the teaching team’s observations will be considered.

7. Course Topics, Calendar of Activities, Major Assignment Dates

<table>
<thead>
<tr>
<th>Component</th>
<th>Second Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects and teams assigned</td>
<td>Second Week</td>
</tr>
<tr>
<td>Team Code of Cooperation</td>
<td>48 hours after team assignment</td>
</tr>
<tr>
<td>Complete first on-site visit</td>
<td>Within ~10 days of the project being assigned</td>
</tr>
<tr>
<td>Submit draft* project charter for review</td>
<td>19 September</td>
</tr>
<tr>
<td>Reviewed and signed project charter</td>
<td>5 October**</td>
</tr>
<tr>
<td>Presentations</td>
<td>Graded presentations: 4 per student throughout the semester.</td>
</tr>
<tr>
<td>Progress Reports</td>
<td>Weekly starting when teams are assigned and ending when technical meetings stop. A prescribed format is provided on eCampus.</td>
</tr>
<tr>
<td>Engineering Competition (video)</td>
<td>TBD</td>
</tr>
<tr>
<td>Draft Final Report</td>
<td>NLT 1700, 22 November</td>
</tr>
<tr>
<td>Video</td>
<td>NLT 1700, 2 December</td>
</tr>
</tbody>
</table>
* Project sponsor and advisor review and sign the project charter AFTER the draft is reviewed and feedback from teaching team is incorporated.

** Not every team will be able to meet these dates. If your team is in this situation, it is your responsibility to inform the course instructor via email and not in a passing conversation.

8. Attendance
Policy: Attendance in this course is mandatory and graded. Students are expected to attend all required course events: classes, weekly team meetings and final course event(s). Absences from required course events will be reflected in the attendance grade. Excused absences will be dealt with strictly in accordance with university rules (http://student-rules.tamu.edu/rule07). Bring your issues or questions to the lead TA. The university also allows excused absences for religious holidays. See the specific policy for details (http://dof.tamu.edu/content/religious-observance).

8.1 Attendance grades are specified below. The official attendance clock will be the attendance taker's cell phone.
- On time = 100
- Late = 70
- Excused absence IAW university rules to include timeliness = 100
- Unexcused absence
  - Prior notice (email) = 60*
  - No prior notice = 0

* This benefit applies up to a total of 3 unexcused absences from required course events. Beyond 3 unexcused absences, the attendance grade is a zero (0). If you miss two consecutive presentations or technical meetings, you are putting yourself at risk.

8.2 If you are not present at the start of class or team meeting, you are late or absent. It is the late arriver's responsibility to ensure the TA knows they arrived in class. Attendance issues must be addressed within 24 hours of the class occurring. After that, the grade recorded is permanent.

9. Project Charter
The project charter is the senior design team’s written plan of work and includes analysis and evaluation of alternative solutions and a detailed schedule for project execution. The project charter is reviewed and signed by the team, the team’s assigned faculty advisor, the project sponsor and the course instructor—after being reviewed and comments/changes incorporated/made. At a minimum, the project charter establishes the project’s scope, presents the proposed methods/solutions, identifies required data and/or information, deliverables and includes a schedule for project completion—at the outset. Like any plan, it is subject to modifications. Check eCampus for additional details.

10. Course Details
10.1 Team assignments are based on the project. Students who do not submit project preferences by the established deadlines will be assigned to a project.
10.2 Class Meetings

10.2.1 ~Weeks 1-3: For the first two and possibly three weeks of the semester, students attend class on both Tuesday and Thursday. After that, based on team assignments, students attend class one day per week (Tuesday or Thursday). If a student wants to attend the other class to observe another teams’ work, that is allowed and encouraged. The teaching team reserves the right to schedule other events during class time or modify the class schedule temporarily if needed.

10.2.2 From Week 4 through the semester’s end, class will be conducted as an open learning environment. Plan for classes to run from 0935 to 1205 and focused in these areas:

10.2.2.1 Presentations are formal (prepared slides and remarks), graded events with all team members presenting and all team members participating. Teams present every other class meeting and report their progress, present concerns or unresolved issues. They also may seek advice and assistance from classmates and the teaching team during their presentations. Slides must be deposited in the eCampus upload folder no later than 0800 the day of the presentation.

10.2.2.2 Technical review sessions occur on the week a team is not delivering a presentation. Teams attend their individual technical review session with the course’s technical instructor at a time assigned by a TA. Once the session is completed, the team’s class attendance requirement for the day is fulfilled. The team is expected to conduct a hot wash immediately following the meeting.

10.2.2.3 Guest lecture or instructional lecture is not a frequent occurrence, but possible.

10.3 Team Meetings (TMs) Teams are required to meet outside of class at least once per week with all team members present. Teams will set up their meeting days and times before COB (close of business, 5 p.m.) on the day the team assignment is made. Once the schedule is set and submitted to the teaching team, attendance is mandatory for all team members in accordance with IAW the submitted schedule. Additionally, all team members must be present and in attendance for the entirety of any required meeting (meeting with sponsor, faculty advisor, team meetings) to receive full attendance credit. There will be no canceled/missed TMs for any reason other than a valid university excused absence. Teams will report attendance in their weekly reports. Failure to report attendance accurately is a violation of the Aggie Honor Code.

10.4.1 Each team will submit a progress report. Attendance at TMs and other scheduled meetings will be reported in writing to the teaching team in this weekly report. Late arrivals and early departures will also be recorded. These weekly reports are awarded a participation grade, adjusted based on content compliance, and due by 5 p.m. every Friday. Late reports receive a full one-letter grade reduction for every 24 hrs. they are late. At 72 hours past the due date and time, the grade is an “F,” but worth 55 points if submitted up to 95 hours and 59 minutes after the due date and time. At 96 hours past the due date and time, the grade is an “F” and awarded zero points.

10.4.2 Any meeting outside the established schedule is an off-schedule meeting. An off-schedule meeting will not count toward the attendance grade, but team members should make every effort to attend. Expectations for participation must be assessed against standards of reasonableness.

10.5 Meetings with the Sponsor and Advisor:

10.5.1 Bi-weekly meetings with the project sponsor’s point-of-contact (POC) are highly desired. These meetings can be done via a conference call, video conference, or on-site visit (e-mail correspondence does not qualify). All group members must be present with exceptions being made only for university excused absences and class schedules. Meeting times will be arranged between the individual team POC and the corporate sponsor’s POC. These meetings can only be canceled by the sponsor. Cancellations will be reported in the team’s weekly report. If the sponsor finds the frequency of weekly meetings unacceptable, report that in your weekly report.
10.5.2 Faculty Advisor: Teams must have a faculty advisor from our department. The course professor(s) will arrange for each team’s advisor. Teams are expected to visit with their faculty advisor at least every two weeks throughout the entire semester, and the faculty advisor is the only person allowed to alter this requirement. The faculty advisor is considered the subject matter expert (SME) advising the team on their approach and making suggestions as needed. Faculty advisors take a very active interest in the projects they advise and consider themselves part of the team. Treat them with appropriate respect, courtesy, and deference.

10.5.3 Secondary Faculty Advisor: Secondary advisors may be needed and teams are welcome to recruit them after coordination with the course professor. These advisors may be from any Texas A&M academic department or affiliated organizations. Any team seeking an advisor not affiliated with Texas A&M must seek permission from the course instructor in writing and include the individual’s: name, area of expertise, organization’s name and address, email and phone number for the individual, and a brief statement explaining why this person’s assistance is necessary.

11. Professional Standards
The hallmark of an excellent organization is high standards. In that regard, anyone involved with this course is expected to treat others with utmost courtesy and respect. This policy applies to any gathering, regardless of location, where the reason for gathering or the work being done is related to this course. Comments made to others should be factual, constructive, and free from harassing or intentionally demeaning statements. You are encouraged to disagree with others, but such disagreements need to be based upon facts, and the content and tone of these conversations must remain civil.

Instructors, TAs and students need to contribute in an intelligent, positive, and constructive manner during all course activities. Behaviors that are abusive, disruptive, threatening or harassing are inappropriate and may result in disciplinary actions as specified within the Student Rules (student rules can be found at [http://student-rules.tamu.edu/statement](http://student-rules.tamu.edu/statement)) or be referred to the appropriate supervisor if an employee is involved. Warnings will be limited; part of the learning process in this course is respectful engagement of ideas with others.

Students in this course are also responsible for being familiar with the university’s student rules and policies: [http://student-rules.tamu.edu/](http://student-rules.tamu.edu/)

11.1 Confidentiality and Non-attribution: Information presented in this course, especially data or client information, and conversations related to projects are confidential and non-attributable. Information and conversations are shareable among the course’s students and the teaching team. Appropriate protection of confidential information is achieved by keeping it out of the public view (anyone who does not have a need to know). Printed information kept inside a folder, in a binder, or a password protected device and reasonably secured against accidental discovery is sufficient. And, that folder or binder or device is on your person or in a location where your property and privacy rights afford protection (room, backpack, car, …).

The non-attribution element is addressed by not attributing the information to a specific entity or person. You don’t say, “José said that Range Rovers have reliability issues.” You say, “I understand that Range Rovers have reliability issues.” You don’t say, “I heard the capstone team working the Dow project say that raw material prices were going up and causing a $1 or more increase in Starbucks coffee.” You say, “It’s my understanding that raw material price increases might impact the price of beverages in carryout containers.”

11.1 Names and Preferred Pronouns: Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student’s legal name. We will gladly honor your request to address you by an alternate name or preferred gender pronoun. Please advise us of this preference early in the semester so that we may make appropriate changes to my records.
11.2 Discrimination Policy: Texas A&M is committed to the fundamental principles of academic freedom, equality of opportunity and human dignity. To fulfill its multiple missions as an institution of higher learning, Texas A&M encourages a climate that values and nurtures collegiality, diversity, pluralism and the uniqueness of the individual within our state, nation and world. All decisions and actions involving students and employees should be based on applicable law and individual merit.

Texas A&M University, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, sexual orientation, or veteran status.

It is the policy of Texas A&M University not to discriminate based on gender, age, disability, race, color, religion, marital status, veteran's status, national or ethnic origin, or sexual orientation. Harassment of a student, i.e., a pattern of behavior directed against a particular student with the intent of humiliating or intimidating that student will not be tolerated. The mere expression of one’s ideas is not harassment and is fully protected by academic freedom, but personal harassment of individuals is not permitted.

The quickest way to establish ground rules and a clear understanding of boundaries is through calm and professional communication that identifies the language or behavior and specifies a corrective measure. A single communication is considered sufficient. If the objected-to behavior or language continues, then the perpetrator is transgressing into behavior that constitutes harassment or more serious infractions.

11.3 Social Loafing: Social Loafing is a polite term for students who do not make a fair share contribution to the work in this course. Every semester the teaching team spends a lot of time with one or two students who fall into this category. Not an all-inclusive list, but examples of this problem:

- Student disappears after class and does not respond to voicemail, email, or text messages.
- Once the student is made aware of a communication problem, nothing changes.
- Student expects the team to accommodate their personal schedule.
- Student is repeatedly a no show for meetings or arrives late or departs early or both.
- Student repeatedly does not deliver work, or the work is full of errors, only partially complete, or otherwise unacceptable and has to be redone by someone else.
- Student goes off—without the rest of the team's awareness or concurrence—on his own creative tangent that contributes nothing or very little to the project but wants credit for contributing.
- Student shows up to meeting but spends more time on his cell phone than anything else.

11.4 The following standards attempt to address this issue:

11.4.1 Availability: You must be accessible. With regard to team communication, this is the standard: it is an individual's responsibility to communicate with the team and ensure the means of communication are working and checked at least twice (a.m. and p.m.) per weekday and once per day on weekends. This applies to individuals and teams.

11.4.2 Participation: Every team member is expected to make a fair-share contribution to every aspect of their team's project. Depending on the project's focus and an individual student's strengths, a fair share contribution may not equate to an exact and equally distributed percentage (e.g. 20% of the work in a five-person team). Students are encouraged to seek work that compliments their individual strengths and, as much as possible, teams are encouraged to assign members to their strengths. Students should understand that perfect equity is not always possible, so allowances must be made in terms of assigned tasks and workload. Team members can deal with non-participating/contributing team members through participation credit awarded in the weekly report and in the final peer review. The team, based on a majority (2/3, 3/4, 3/5) agreement, can recommend partial credit (in the form of a percentage) to any team member who did not do his or her part for any graded assignment.

11.4.2.1 The minimum requirements for a student to be awarded partial credit are:

- The requirement was clearly communicated.
- The due date was clearly communicated.
• No explanation for the shortfall has been offered or the explanation does not suffice.
• In all cases, the team’s recommendation will be considered, but the final decision on the penalty and if one is allowed rests with the teaching team.

11.5 Courtesy and Respect: One of the standards we ask that each of you demonstrate is courtesy and respect in language and comportment. We always expect students’ behavior to be professional and words to be carefully chosen.

11.6 Non-performing Students: The faculty team is committed to providing every student the educational opportunity this course affords. In cases where a student not participating or contributing at an acceptable level and the problem cannot be resolved, the faculty team can place the student in a Track B Option. This option pulls the student from the team and has the student work a course of assignments under direct faculty supervision. The highest final grade possible under this option will be a “C” provided requirements are met.

12. Poster Session
The course’s final event in the fall semester is a poster session and occurs on the reading day before final exams begin. Each team creates a poster that allows team members to present their work using the visual and written content it contains. This event is open to all students, friends, family, and project sponsors and is primarily an opportunity for faculty to see each team’s final work. Generally, the poster session begins at 10:30 a.m. and runs to 1 p.m. A light lunch will be served with awards presented at the end of lunch.

13. Travel
13.1 Travel is an essential part of many projects. All teams are required to abide by the travel guidelines set by the university as well as those prescribed by the department and this course.

13.2 Students will only be reimbursed for course-related travel if ALL steps are followed. Failure to abide by these rules may result in the reimbursement request being disapproved. Remember: In order to be reimbursed, you must have a travel request approved by the course’s travel coordinator.

Filing trips in the CIRT system at https://stuactonline.tamu.edu/app/form_travel is required. Failure to do so will result in expenses not being paid and reimbursement not allowed.

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

15. Academic Integrity

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

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. 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://student-rules.tamu.edu/; http://student-rules.tamu.edu/aggiecode; and http://student-rules.tamu.edu/rule20. The complete information of university regulations regarding the handling of academic misconducts (including the appeal process) can be found at http://aggiehonor.tamu.edu/.
We, the course faculty, and the rest of the Industrial & Systems Engineering Department faculty, uphold the Aggie Honor Code as an axiom of our academic excellence. We consider its sincere observance essential for membership in our department and Texas A&M. We extend to you the trust conferred to those who faithfully adhere to our honor code. Abuse of this trust is intolerable; thus we will report and assign an extreme penalty* to those who do not stand with us in preserving the integrity symbolized by the Aggie Honor Code, "An Aggie does not lie, cheat, or steal or tolerate those who do."

Any work submitted for this course’s requirements constitutes each team member’s certification that the entirety of the content and all approaches, techniques, and applications utilized resulted from the individual team members, the instructor team/TAs, the faculty advisor(s) and the corporate/company contact(s) only. There is no “outsourcing” of any work done by a team. Any knowledge obtained from an individual or reference outside of this group must be cited and referenced within any course requirement to which it contributes. There will be absolutely no tolerance extended to teams found in violation of this policy or the Aggie Honor Code.

* In this course the penalty for any violation of the Aggie Honor Code, regardless of how minimal the violation may be, is an F*. Incidents of academic dishonesty will be handled in accordance with university rules and procedures specified at http://aggiehonor.tamu.edu.

Note: University policy prohibits any student found to have violated the Aggie Honor code from graduating with honors.

16. Assignments

16.1 Speaking: Each student will deliver four formal presentations for a grade. Due dates are not shown for these assignments because there are four due dates for each one which would likely cause more confusion and frustration than anyone needs.

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Graded</th>
<th>% of Course Grade</th>
<th>Slides Required</th>
<th>Deliver From</th>
<th>Time</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech improvisation</td>
<td>N</td>
<td>0</td>
<td>N</td>
<td>In front of the class</td>
<td>45 sec</td>
<td></td>
</tr>
<tr>
<td>Project Introduction Presentation</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>&quot;</td>
<td>1 min</td>
<td>Formative feedback in writing</td>
</tr>
<tr>
<td>First IPR Presentation</td>
<td>Y</td>
<td>5</td>
<td>Y</td>
<td>&quot;</td>
<td>2 mins</td>
<td></td>
</tr>
<tr>
<td>Second IPR Presentation</td>
<td>Y</td>
<td>8</td>
<td>Y</td>
<td>&quot;</td>
<td>2.5 mins</td>
<td></td>
</tr>
<tr>
<td>Final Presentation</td>
<td>Y</td>
<td>14</td>
<td>Y</td>
<td>&quot;</td>
<td>3 mins</td>
<td></td>
</tr>
</tbody>
</table>

Content continues.
Writing assignments are individual assignments and the content below will be supplemented by more detailed instructions.

<table>
<thead>
<tr>
<th>Writing Assignment (WA)</th>
<th>Length (Words)</th>
<th>% of Course Grade</th>
<th>Details</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA1</td>
<td>~250</td>
<td>0</td>
<td>Tell me about yourself as a presenter/public speaker. What are your skills? Use personal experience (story) to provide examples. Formative feedback.</td>
<td>Sep 1</td>
</tr>
<tr>
<td>WA2</td>
<td>250 + 100</td>
<td>1</td>
<td>Revise WA1 using the feedback you received to improve your submission.</td>
<td>Sunday before you present Sep 29</td>
</tr>
<tr>
<td>WA3</td>
<td>~300 + 100</td>
<td>2</td>
<td>Write what you will say during your presentation—word-for-word. Then reflect on the experience in ~100 words.</td>
<td>Oct 20</td>
</tr>
<tr>
<td>WA4</td>
<td>~300 + 100</td>
<td>3</td>
<td>Write an assessment of your experience in this course reflecting on the times during the semester when you used your presentation skills—outside of class. Reflect on the impact of your cumulative experiences presenting this semester.</td>
<td>Nov 17</td>
</tr>
<tr>
<td></td>
<td>1,400</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# New Core Component Proposal

**Viewing:** MATH 442-C: Mathematical Modeling

**Last edit:** 09/25/19 12:07 pm

Changes proposed by: donnalh

<table>
<thead>
<tr>
<th>Contact(s)</th>
<th>Name</th>
<th>E-mail</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Donna Hoffman</td>
<td><a href="mailto:donnalh@tamu.edu">donnalh@tamu.edu</a></td>
<td>979-862-4306</td>
</tr>
</tbody>
</table>

- **Course Prefix:** MATH
- **Course Number:** 442
- **Academic Level:** UG
- **Complete Course Title:** Mathematical Modeling
- **Abbreviated Course Title:** MATH MODELING
- **Semester Credit Hour(s):** 3
- **Proposal for:** Communication Designation

## Communication Designation

- **Number of credits offered for C sections of course:** 3
- **Number of Sections per Academic Year:** 2
- **Enrollment per Section (Avg.):** 22

If the course is a variable topics course (e.g., 289, 489, 291, or a course that regularly changes in topic such as “Studies in Rhetoric”), how will the department ensure that the course consistently meets the requirements for a C course?

N/A

Do any assistants (i.e., No GATs or undergraduates) help with the course?
Pick a syllabus statement:

To pass this course, you must pass the writing and speaking components. NOTE: In this case the student will receive a failing grade.

List all graded writing and speaking assignments along with the approximate word count or length of time speaking of each. For speaking assignments, put 0 in the word count box. For writing put 0 in the length of speaking assignment box. (Note that for most 12-point fonts there are about 250 words on a page if double-spaced and 500 if single-spaced.) In addition, list the percentage of the final grade each assignment represents.

<table>
<thead>
<tr>
<th>Writing/Speaking Assignment</th>
<th>Word count</th>
<th>Length of Speaking Assignment</th>
<th>% of Final Grade</th>
<th>Collaborative?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project 1</td>
<td>1200</td>
<td>0</td>
<td>15</td>
<td>Yes</td>
</tr>
<tr>
<td>Project 2</td>
<td>1200</td>
<td>0</td>
<td>15</td>
<td>Yes</td>
</tr>
<tr>
<td>Project 3</td>
<td>1200</td>
<td>0</td>
<td>15</td>
<td>Yes</td>
</tr>
<tr>
<td>Project 4</td>
<td>1200</td>
<td>0</td>
<td>15</td>
<td>Yes</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>No</td>
</tr>
</tbody>
</table>

Add the total of the word count, length of speaking assignment, and % of final grade here.

<table>
<thead>
<tr>
<th>Total Word Count</th>
<th>Total Length of Speaking Assignment</th>
<th>Total % of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>4800</td>
<td>10</td>
<td>70</td>
</tr>
</tbody>
</table>

Explain how collaboration is monitored to ensure equal participation.

Modeling Projects: Students work in groups of up to 3 on the 4 modeling projects. For each project students are given two weeks to formulate and design a solution to the problem. During this time the instructor consults with students as a group and individually to ensure that all students are participating in finding the final mathematical solution. At this point students write a draft of their report on their solution of a minimum of 1200 words total. Individual students are assigned to write subsections of the report, and each student will write at least 400 words as part of each of the four reports (so each student writes a minimum of 1600 words individually throughout the semester). The grade on the mathematical solution of the problem is shared among group members, but each student receives an individual communication grade on his or her individual part of the project report.

Oral Presentation: At the end of the semester and after the completion of the fourth modeling project, each student prepares and gives an individual oral presentation of 10 minutes, based on some aspect of their group's solution to the given modeling problem. The oral presentation is not collaborative.

Describe the formative feedback provided on student writing and speaking, especially on major assignments. Formative feedback is feedback given before a grade is assigned. You can meet this requirement with comments on drafts (including slides or speech outlines), practice delivery of speeches, or peer review done before the final product is graded, or you can give feedback on graded writing or speaking if there are 5 or more assignments in the same genre.

Modeling Projects: Students turn in rough drafts of each of the four project reports, and the instructor provides written feedback. For each project, students have two more weeks to make changes to their report and submit a final version. If the written report of the final version of a project report can still be improved for clarity, students are permitted to resubmit a corrected version to bring up their communications grade on that report.

Oral Presentation: Instructors use some class time and office hours to answer students' questions about preparing their presentations. Outside of class, students practice their presentations in their groups before giving them to the class at large.

Describe how you provide writing and speaking instruction.

Modeling Projects: Students are provided detailed instructions on how modeling projects are to be conducted and how to synthesize their findings into project reports and presentations. Feedback is provided throughout the semester on project drafts so that students can hone their communication skills.

Oral Presentation: In preparation for the oral presentation the instructor provides students guidelines on what is expected, including information on the overall organization of the presentation, the general pacing of the presentation, and the number of power point slides to include. Students are given examples of slide presentations to use as templates, and the instructor provides an example presentation in class.

Additional Comments

Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.

Attatch Course Syllabus 442_Syllabus_518.pdf

Reviewer Comments

Valerie Balester (v-balester) (09/25/19 10:23 am): Rollback: (1) There is no formative feedback on the speaking (2) The individual writing is unclear. If a group projects is done by three people, does the word count of 1000 on the form for each project indicate the final project for the group or the individual contribution? Does each individual student write 4000 words? (3) How many minutes does each individual speak on the group projects? Since there is one final individual presentation of 10 minutes, they do not have to speak at all, but we need that
We recommend that MATH 442 Mathematical Modeling be certified as a Communication (C) course for four academic years (1/20 to 1/24). We have reviewed a representative syllabus and have determined that the course meets or exceeds the following criteria: (1) 90% of the final grade is based on writing and speaking quality; (2) the total number of words is 1600; (3) the total minutes of performance is 10; (4) the instructor to student ratio is 1:22; and (5) the assigned writing and speaking are appropriate to the major. For this course, there are four modeling projects that include both writing and a presentation, and there is an individual 10-minute oral presentation. The four projects are completed in groups of 3-4 students, but every student is assigned to a sub-section of each report of at least 400 words. All reports are submitted in draft form for written instructor feedback, and students are permitted to revise more than once if needed. Oral presentations are practiced in small groups outside of class. Modeling projects and their formats are reviewed in detail throughout the semester, and guidelines are given for effective oral presentations, with examples, including an example presentation by the instructor.
Syllabus for MATH 442-930 Mathematical Modeling  
Texas A&M University, Spring 2018

**Instructor:** Dr. Alan Demlow, Professor of Mathematics  
**Office:** Blocker 507D  
**E-mail:** demlow@math.tamu.edu

**Office hours:** Scheduled office hours are Thursday 2-4 p.m. You may stop by without an appointment during these times. I am also happy to schedule an appointment to meet with you at other times.

**Course time and place:** TR 9:35-10:50 a.m., Blocker 122

**Course website:** The course website will be linked to from http://www.math.tamu.edu/~demlow/.

**Textbook:** There is no required textbook for the course. However, here are a few references that may be handy:


- Helmut Kopka and John Daly, *A Guide to LATEX*. You will be required to use the LaTeX typesetting system to produce written work in this course. There are also plenty of resources available on the web that may help you learn LaTeX.


- Other iterations of this course that include some possibly helpful material have been taught by Dr. Peter Howard (http://www.math.tamu.edu/~phoward/), Dr. Wolfgang Bangerth (http://www.math.colostate.edu/~bangerth/teaching.html#2016-spring-442), and Dr. Jean Marie Linhart (http://www.jeanmarielinhart.info/mathematical-modeling-math-442/).

**Course description and prerequisites:** From the catalog: “The construction of mathematical models from areas such as economics, game theory, integer programming, mathematical biology and mathematical physics.” Prerequisites: Math 304 and 308 or equivalents.

**Course objectives:** Mathematical modeling may be defined as the use of the language of mathematics to describe the world around us. The precise goal of modeling depends on the situation, but broadly speaking modeling is used for *description, prediction,* and *optimization*. By description we mean simply the ability to better understand at a basic level how a given system operates. We can for example use differential equations to describe how predator and prey populations interact, military conflicts, and even romantic relationships. The second use of modeling, prediction, has obvious benefits in science, engineering, biology, finance, and many other areas. Aircraft engineers for example use mathematical models to predict whether a given airplane design will withstand the rigors of flight. This has obvious benefits over the alternative—building a given design and hoping it doesn't crash! Optimization is the process of making the best use of given resources. Returning to the previous example, aircraft designers not only want to ensure that their designs fly robustly, they also want to build aircraft which maximize cargo load, fuel consumption, and construction costs (in some combination). Optimization helps to balance these competing demands.

The goals for this course are to teach how mathematical models are constructed, how to extract information from models, how to evaluate their efficacy and improve them, and finally how to communicate about them. This process is very different from what you have probably experienced...
in most other math courses. Constructing a good model involves balancing competing demands—how complicated the model is, how expensive it is to solve the model, how accurate it is—and thus there often are not black-and-white, right and wrong answers in modeling. In fact, it may be possible to model a given situation using very different mathematical tools. Traffic may for example be effectively modeled using either ordinary differential equations or simple discrete tools. Thus instead of evaluating models as right and wrong, we think of them as being useful or not—and what we mean by those designations depends on the situation. For example, we might use a simple model to gain a heuristic understanding of a given system, but a more complex one if we want to make a highly accurate prediction about its future evolution. The overarching goal for this course is to make you comfortable with all parts of the modeling process, and in the end enable you to develop a mathematical model into a cohesive story which gives an accurate and meaningful picture of the system under study.

Because this is a communication intensive (“C”) course, we will spend significant time and effort learning how to communicating your results in written and oral form. In particular, you will be asked to produce high-quality reports and give talks at the end of the semester in which you present your results to your peers. You will be required to use LATEX-based software to generate written reports, and we will also use MATLAB for computing.

**Homework:** There will be some weekly assignments throughout the course of the semester. These will concern basic mathematical and computing tools that you will use as part of your projects. These assignments will probably be concentrated largely at the start of the semester and will be worth 20% of your final grade.

**Projects:** There will be four written assignments (projects) due throughout the course of the semester. Assignments with point breakdowns and tentative due dates (subject to change) are:

1. Assignment 1 (15%): Draft due 1/30/18, final version due 2/2/18.

On the draft due date, you will be asked to bring a draft of your work to class in order to engage in a peer review process. Note that some projects will be done as part of a group, as designated in the individual assignments. Also, roughly one-third of the points in each written assignment will be assigned on the basis of writing quality.

**Oral reports:** You will give an oral presentation of roughly 10 minutes in length to the class at the end of the course. This will count for 10% of the course grade. Oral reports will be scheduled the last week of class and/or during the final exam period, which is 12:30-2:30 p.m. on Thursday, May 3.

**MATH442 as a communication-intensive course:** This section of MATH442 is designated as a communications-intensive (“C”) course (http://writingcenter.tamu.edu/Students/W-and-C-Course-Facts). Thus roughly 33% of the grade must be based on writing and speaking quality, and there are also minimum amounts of oral and written communication required. The writing and speaking quality points requirement is fulfilled by the required oral report (10%) plus the written assignments (writing quality points make up 1/3 of 70%, or about 23%) for a total of 33%.

**Exams:** There will be no midterm or final exam in this course.
Grading: Your final grade will be determined by your composite weekly assignment score for the semester (20%), your four written assignments (15+15+15+20=70%), and your oral report (10%). Your minimum final grade will be A, B, C, and D for course averages of 90, 80, 65, and 50, respectively. Scores will be posted on eCampus. Please check your recorded grades regularly to monitor your progress in the course and ensure accuracy of recorded grades. Also, because this is a “C” course, you must pass the written and oral communication portion of the course in order to pass the course overall.

Attendance and late work: Lecture attendance will not be recorded, but you are responsible for all lecture material and announcements made in class. Legitimate reasons for missing class include illness, illness or death of a family member, participation in university-authorized activities, and major religious holidays. Late work will not be accepted without prior permission and/or a university-mandated excuse for the absence. Students asking for extensions of assignment due dates should let me know of any conflicts at least one week beforehand in the case of prescheduled absences and as soon as possible (but in no case more than two working days after the absence) in cases where the absence is not foreseeable. Written documentation may also be requested. See http://student-rules.tamu.edu/rule07 for the full university policy.

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.

Academic integrity and plagiarism: The Aggie honor code states: “An Aggie does not lie, cheat or steal, or tolerate those who do.” See http://aggiehonor.tamu.edu for specifics. While writing up weekly homework assignments, you are allowed and encouraged to consult with others. However, you may not share code and must write up your own work.

Your writing assignments will require you to find resources in books, journals, on the internet, or elsewhere. You will of course use what others have done in projects, but you must clearly differentiate between your work and what you have gotten from elsewhere. This includes giving proper citations for information obtained elsewhere and using quotation marks when giving direct quotes. Plagiarism has serious consequences in real life (up to and including loss of jobs and careers), and you will likewise receive no credit for assignments in this course if you are caught plagiarizing. Please also note that the peer review process will give you access to others’ work prior to the final due date. If you want to use an idea from one of your classmates in your own report, you must first ask that person for permission, and then give that person adequate credit in your work in the form of a reference if permission is granted. Any academic integrity violations will be vigorously prosecuted according to university rules.

Classroom decorum: Students are expected to be attentive and courteous during class. During class, please put away newspapers, turn off cell phones, and refrain from using laptops or other electronic devices except for note-taking purposes.
Core Curriculum Management

New Core Component Proposal

Date Submitted: 09/09/19 5:38 pm

Viewing: **NFSC 491-C : Research**

Last edit: 09/24/19 11:34 am

Changes proposed by: poppycapehart

### Contact(s)

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poppy Capehart</td>
<td><a href="mailto:poppy@tamu.edu">poppy@tamu.edu</a></td>
<td>979-845-2142</td>
</tr>
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<table>
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<tr>
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<table>
<thead>
<tr>
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<td>Research</td>
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<td>Communication Designation</td>
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### Communication Designation

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<tr>
<th>Number of credits</th>
<th>Number of Sections per Academic Year</th>
<th>Enrollment per Section (Avg.)</th>
<th>% of Final Grade</th>
<th>Collaborative?</th>
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<tr>
<td>1-4</td>
<td>2</td>
<td>3</td>
<td></td>
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If the course is a variable topics course (e.g., 289, 489, 291, or a course that regularly changes in topic such as “Studies in Rhetoric”), how will the department ensure that the course consistently meets the requirements for a C course?

The course coordinator, Dr. Steve Talcott, will ensure that every faculty member teaching the course will have the syllabus and that they agree to adhere to it in regard to their role in reviewing drafts. The course coordinator will check before the course is complete that all students completed the required e-campus quizzes.

Do any assistants (i.e., GATs or undergraduates) help with the course?

No

Pick a syllabus statement:

To pass this course, you must pass the writing and speaking components. NOTE: In this case the student will receive a failing grade.]

List all graded writing and speaking assignments along with the approximate word count or length of time speaking of each. For speaking assignments, put 0 in the word count box. For writing put 0 in the length of speaking assignment box. (Note that for most 12-point fonts there are about 250 words on a page if double-spaced and 500 if single-spaced.) In addition, list the percentage of the final grade each assignment represents.

<table>
<thead>
<tr>
<th>Writing/Speaking Assignment</th>
<th>Word count</th>
<th>Length of Speaking Assignment</th>
<th>% of Final Grade</th>
<th>Collaborative?</th>
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### Writing/Speaking Assignment

<table>
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<td>Research summary/thesis</td>
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<td>75</td>
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<td>Research seminar presentation</td>
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<td>5</td>
<td>25</td>
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Add the total of the word count, length of speaking assignment, and % of final grade here.

<table>
<thead>
<tr>
<th>Total Word Count</th>
<th>Total Length of Speaking Assignment</th>
<th>Total % of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1250</td>
<td>5 minutes</td>
<td>100</td>
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Explain how collaboration is monitored to ensure equal participation.

This is an individual research project under the supervision of a receiving faculty member; team projects are not anticipated.

Describe the formative feedback provided on student writing and speaking, especially on major assignments. Formative feedback is feedback given before a grade is assigned. You can meet this requirement with comments on drafts (including slides or speech outlines), practice delivery of speeches, or peer review done before the final product is graded, or you can give feedback on graded writing or speaking if there are 5 or more assignments in the same genre.

Formative evaluation will be provided to students through instructor comments on rough drafts of introduction, methods, and full thesis prior to submission of final thesis. In addition, faculty may provide formative evaluation through one-on-one interactions/discussion. Formative evaluation will be provided to students through comments on an outline of the oral presentation and sample slides submitted 2 weeks prior to presentation.

Describe how you provide writing and speaking instruction.

By the end of the third week of the semester, students must view four podcasts available through the TAMU Writing Center on Academic Integrity, Science Writing, Literature Reviews, and Presentation Slides. Students will complete quizzes on the podcasts that are submitted to the receiving professor.

Additional Comments: None

**Please ensure that the attached course syllabus sufficiently and specifically details the appropriate core objectives.**

- Attach Course Syllabus: [NFSC 491-C Syllabus (002).pdf]
- Reviewer Comments: Donna Pantel (dpantel) [10/10/19 2:37 pm]: REPORT ON RECERTIFICATION OF C COURSE: NFSC 491 We recommend that NFSC 491 Research be certified as a Communication (C) course for four academic years (9/19 to 9/23). We have reviewed a representative syllabus and have determined that the course meets or exceeds the following criteria: (1) 90% of the final grade is based on writing and speaking quality; (2) the total number of words is 1250; (3) the total minutes of performance is 5; (4) the instructor to student ratio is 1:1; and (5) the assigned writing and speaking are appropriate to the major. Students taking this course can take it for 1-4 credits and never for 0 credits, but in all cases 100% of the grade is based on writing. Students work one-to-one with a faculty member on research to write a summary of their work and a thesis. They present their work to peers at a seminar. Faculty commit to providing formative feedback four times during the semester on section of the thesis (e.g., introduction, methods, results). Students submit slides early and received comments on those from their faculty mentor. For instruction, students listen to writing podcasts and take quizzes administered within the department to ensure compliance. The course coordinator ensures this requirement is met.

Key: 1088
### Course Title and Number
NFSC 491-C, Research

### Term
Spring 2020, Variable Credit (1-4)

### Meeting Times and Location
TBD

### Instructor Information

<table>
<thead>
<tr>
<th>Name</th>
<th>TBD (all research faculty are eligible)</th>
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<tbody>
<tr>
<td>Telephone number</td>
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<tr>
<td>Email address</td>
<td>TBD</td>
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<tr>
<td>Office hours</td>
<td>TBD</td>
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<tr>
<td>Office location</td>
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### Course Description and Prerequisites
Research conducted under the direction of faculty members in nutrition or food science. Selected nutrition or food science majors are permitted to register for NFSC 491-C based on submission of a completed application and agreement of research advisor. NFSC 491-C is a variable credit writing and communication-intensive course that will include research commensurate with the number of credits, a written thesis or research summary, and an oral presentation to a group of scientific peers. The goal is to provide “hands-on” research, thesis/report writing preparation, and a professional review by peers, research advisors, and other faculty members.

As a communications course, this class satisfies the writing and oral communications components required by the University Writing Center for NFSC majors. Writing and speaking are essential to effective scientific communications and are inseparable from scientific content. Facts that are written or spoken in an unorganized manner can create confusion in the scientific community. Therefore, writing quality and clarity/organization of speech are considered as part of your grade on your written thesis or research report and its oral presentation. A significant portion of this course will be devoted to giving you the opportunity to refine your writing skills through editing processes and other formative feedback. Since this course satisfies a university “C” requirement for NFSC majors, students will not receive credit for this course without passing both the writing and speaking components of the course. Effective writing uses standard edited American English for mechanics (grammar, punctuation, spelling, and word usage), clarity of organization and argument, tone appropriate to the audience, and accurate content.

### Prerequisite
Students must complete the application with the appropriate approval and signatures from a research professor. Students must have at least one semester research experience with data collection (ie. NFSC 484, NFSC 485, or NFSC 491). Senior Classification.

### Learning Outcomes or Course Objectives
• Students are expected to locate, summarize, and critique published research related to research project.
• Students are expected to demonstrate effective written communication by writing a clear and accurate document describing the methods and results of their research.
• Students are expected to demonstrate effective oral communication by giving a research seminar to their research peers in a clear and accurate formal presentation describing the methods and results of their research.
• Students are expected to manage research literature and citations using an appropriate software tool.

**Course Requirements**

• Each student must view and pass assigned training on scientific writing and academic integrity available through the University Writing Center (writingcenter.tamu.edu).
• Each student must coordinate with research advisor a timeline of activities that includes research activities, thesis/research summary submission dates, and data presentation style and document formatting.
• The student must incorporate research advisor comments/recommendations into the final thesis or research summary. The written document must be at least 1,250 words with time for formative review and editing by the receiving professor.
• Each student will prepare and deliver an oral presentation of at least 5 minutes that reports their research outcomes. The date of this presentation will be scheduled by the course coordinator and provided at the beginning of the semester.
• Course grade will be determined as follows:

  • Written thesis/Research Summary: 75 points; broken down as
    o Introduction and literature review: 20 points
    o Materials and Methods: 10 points
    o Results and Discussion: 45 pts
  • Oral Presentation: 25 points; broken down as
    o Media quality: 10 points
    o Presentation quality: 15 points
• Total: 100 points

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

Since this course satisfies a University “C” requirement for this major, students will not receive credit for this course without earning a passing (≥60%) grade on both the written thesis and oral presentation.

**Academic Integrity**
*For additional information please visit: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)*

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

**Required Training through the University Writing Center**
By the end of the third week of the semester, students must view podcasts available through the TAMU Writing Center and pass quizzes (available on eCampus) earning a score of 80% or higher on each one.

**Academic Integrity**
http://writingcenter.tamu.edu/Students/Handouts-Guides/Guides-%28What-Are-You-Writing-%29/Academic-Writing/Academic-Integrity

Science Writing: Practice Makes It (Almost) Perfect
http://writingcenter.tamu.edu/Students/Handouts-Guides/Guides-%28What-Are-You-Writing-%29/Academic-Writing/Scientific-Writing/Practice-Makes-It-%28Almost%29-Perfect

**Literature Reviews**

**Presentation Slides**
http://writingcenter.tamu.edu/Students/Handouts-Guides/Guides-%28What-Are-You-Writing-%29/Presentations/Presentation-Slides

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**Attendance and Make-up Policy**
Be sure to pay close attention to deadlines given by your receiving professor. All assignments will have specific due dates, and there will be no make-up assignments or late work accepted unless a university-excused absence (see section 7.1 of TAMU Student Rules Rule 7 for what the University considers excused absences) that cover more than 50% of the period of time from the release of the learning module/assignment to the deadline can be utilized for the provision of make-up work or late submission. Specific and original documentation for university-approved excuses is required.

**Course Policies**
While you are a student at Texas A&M University, you are expected to exhibit the characteristics of integrity in this academic setting, which includes being honest, trustworthy, respectful, fair, and responsible. Texas A&M University defines academic misconduct, or dishonesty, as: “Misconduct in research or scholarship includes fabrication, falsification, or plagiarism in proposing, performing, reviewing, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data. Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one’s work, should the instructor request it, is sufficient grounds to initiate an academic dishonesty case. Academic dishonesty
includes the commission of any of the following acts: cheating, fabrication, falsification, multiple submissions, and complicity.” (Source: Aggie Honor System Office. https://aggiehonor.tamu.edu/RulesAndProcedures/HonorSystemRules.aspx.

Plagiarism
The materials used in this course are not to be duplicated without permission. This includes all materials generated for this class, which include, but are not limited to, syllabi, handouts, Power Point outlines/slides, case studies, etc. You do not have the right to copy these materials unless expressly granted permission. Note: “Making copies” is not limited to making hard copies, but it also includes taking pictures of materials with your phone or other electronic device. As stated in the Student Rules at Texas A&M University: “Student Rule 20.1.2.3.5: “The appropriation of another person’s ideas, processes, results, or words without giving appropriate credit.” (http://aggiehonor.tamu.edu/RulesAndProcedures/HonorSystemRules.aspx#definitions)
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