MEET 4790 SENIOR DESIGN II
Spring 2021
3 credit hour, We 8:30AM-9:20AM Remote (Lecture), We 4:00PM-7:50PM (Lab)

Instructor        Dr. Huseyin Bostanci
Office            NTDP F115L
Office Hours      Mo 1:00PM-3:00PM, We 10:00AM-12:00PM through Zoom meetings (other times by appointment)
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Course Description
Implement, test and demonstrate a product or process. Oral and written documentation required. Projects to be supplied by local industry whenever possible. Pre-Requisites: MEET 4780/ELET 4780.

Course Learning Outcomes (ETAC of ABET program outcomes addressed)
Upon successful completion of this course, students will be able to:
1. Prepare a formal project proposal in response to either an RFP or a group-initiated concept. (3)
2. Design the concept using appropriate electrical and mechanical principles with consideration of societal and global implication. (1, 2)
3. Make a formal oral presentation on the initial design and its applications. (3)
4. Write a formal report on initial design of the project. (3)
5. Learn to work in a small group design environment. (5)

Required Text/Associated Software
No required text. Texts and relevant handbooks used in major courses will be helpful as supplemental texts and materials.

Course Outline
This is a tentative course outline. Instructor will attempt to follow it closely, and reserves the right to substitute any other relevant material at any point throughout the course.

<table>
<thead>
<tr>
<th>Week/ Date</th>
<th>Topic</th>
<th>Presenter</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>1. 1/13/21</td>
<td>Course Introduction, Scope, Requirements</td>
<td>Dr. Bostanci</td>
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<tr>
<td>2. 1/20/21</td>
<td>Project Presentations- I</td>
<td>Student Teams</td>
<td>Weekly Project Update</td>
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<tr>
<td>3. 1/27/21</td>
<td>Project Final Report Format</td>
<td>Dr. Bostanci</td>
<td>Weekly Project Update</td>
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<td>4. 2/03/21</td>
<td>Project Final Report Format</td>
<td>Dr. Bostanci</td>
<td>Weekly Project Update</td>
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<tr>
<td>5. 2/10/21</td>
<td>The Characteristics of Technical Writing</td>
<td>Dr. Bostanci</td>
<td>Weekly Project Update</td>
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<tr>
<td>6. 2/17/21</td>
<td>Project Presentations- II</td>
<td>Student Teams</td>
<td>Weekly Project Update</td>
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<td>7. 2/24/21</td>
<td>Project Presentations- II</td>
<td>Student Teams</td>
<td>Weekly Project Update</td>
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<td>8. 3/03/21</td>
<td>Project Presentations- II</td>
<td>Student Teams</td>
<td>Weekly Project Update</td>
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<td>9. 3/10/21</td>
<td>NDA, Patents, Proprietary Work</td>
<td>Dr. Bostanci</td>
<td>Weekly Project Update</td>
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<td>Week/ Date</td>
<td>Execution Plan</td>
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<tr>
<td>1. 1/13/21</td>
<td>Introduce MEET 4790 course, review syllabus, discuss process and deliverables</td>
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<td>2. 1/20/21</td>
<td>Team presentations- I (3-4 min. per team)- provide a quick recap of project status</td>
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<td>3. 1/27/21</td>
<td>Discuss Project Final Report Format: Cover Page, Table of Contents, Executive Summary, Sections I-IV</td>
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<td>4. 2/03/21</td>
<td>Discuss Project Final Report Format: Sections V-VII, Appendices</td>
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<td>5. 2/10/21</td>
<td>Discuss The Characteristics of Technical Writing</td>
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<td>6. 2/17/21</td>
<td>Team presentations- II (~10 min. per team)- present project progress focusing on fabrication and testing phases</td>
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<td>7. 2/24/21</td>
<td>Team presentations- II (~10 min. per team)- present project progress focusing on fabrication and testing phases</td>
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<td>8. 3/03/21</td>
<td>Team presentations- II (~10 min. per team)- present project progress focusing on fabrication and testing phases</td>
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<td>9. 3/10/21</td>
<td>Discuss NDA, Patents, Proprietary Work</td>
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<td>10. 3/17/21</td>
<td>Discuss Technological Innovation and Entrepreneurship</td>
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<td>11. 3/24/21</td>
<td>Team presentations- III (~10 min. per team)- practice formal oral project presentation</td>
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<tr>
<td>12. 3/31/21</td>
<td>Team presentations- III (~10 min. per team)- practice formal oral project presentation. Submit Abstract for SD Booklet.</td>
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<td>13. 4/07/21</td>
<td>Team presentations- III (~10 min. per team)- practice formal oral project presentation</td>
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<td>14. 4/14/21</td>
<td>No class- Work on course deliverables. Submit Final Report for IAB and Poster.</td>
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Grading Criteria

- Attendance (13 days) (Individual) 5%
- Weekly Senior Design Project Update (total of 12) (Team) 15%
- Project Poster (Team) 5%
- Project Final Report (Team) 35%
- Final Presentation (Team) 10%
- Final Product/Prototype Status 20%
- Peer Evaluation (Individual) 10%

Expected Grade Distribution
A: ≥90%, B: 80-89%, C: 70-79%, D: 60-69%, F: <60%

Policies and Procedures

1. This syllabus is subject to change during the semester with changes to be announced in class.
2. Learning Strategies: This is a design course whereby the students are placed in a simulated industrial environment. Divided into teams, they are responsible for designing and implementing a product or process. They must submit weekly project updates and a final report among other required assignments. The class meets formally once each week for lecture and status reports. Lab time is used for review and learning of software, project scheduling and project prototyping activities.
3. This course provides opportunities for students to take advantage of several software packages supported by the department in the classroom or in lab experiments, in simulation studies, homework assignments, or in projects.
4. The classes will be held remotely via synchronous (live) Zoom video conferencing during the assigned class meeting time.
5. The course website, Canvas, at https://canvas.unt.edu/ will be used for posting announcements, Zoom meeting invitations, course materials, recorded meetings, assignments, and grades. Students are encouraged to check the course website often.
6. Class Recordings & Student Likenesses. Synchronous (live) sessions in this course will be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.
7. Weekly Senior Design Project Updates must be written using the template and include faculty advisor’s signature. Project Updates will be due on Wednesdays at 8:30 am. Late submissions within one day will get half grade reduction; further delays will result in zero grade.
8. Project deliverables must be developed based on the suggested guidelines that will be discussed in class.
9. Peer evaluations will involve evaluation of each team member’s contribution to the project using a rubric-based form. Submitted peer evaluations will be kept confidential.
10. Team presentations should reflect the project progress to date with a content aligned to project report. Final presentation will be used to evaluate oral presentation skills.
11. Grades are based in part on the student’s ability to communicate. You must present your work in a well-organized and well-articulated manner with appropriate depth.
12. Requests for the review of a graded exam/assignment must be made within one week of the grade announcement. Upon review, the exam/assignment score may increase, remain the same, or decrease.
13. There will be no make-up exams or assignments unless you have a documented, university-excused absence. If you know in advance that you will miss an exam, you must contact instructor before the scheduled exam.
14. An “I” (incomplete) grade is given only for extenuating circumstances and in accordance with University and Departmental Policies.
15. The instructor reserves the right to change the grade distribution at the end of the semester. If any changes occur, the changes will be less stringent than the distribution above.

16. **Technical Assistance.** Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues. **UIT Help Desk**: UIT Student Help Desk site (http://www.unt.edu/helpdesk/index.htm)
   Email: helpdesk@unt.edu
   Phone: 940-565-2324
   In Person: Sage Hall, Room 130
   Walk-In Availability: 8am-9pm
   Telephone Availability:
   - Sunday: noon-midnight
   - Monday-Thursday: 8am-midnight
   - Friday: 8am-8pm
   - Saturday: 9am-5pm
   Laptop Checkout: 8am-7pm
   For additional support, visit Canvas Technical Help (https://community.canvaslms.com/docs/DOC-10554-4212710328)

17. **Rules of Engagement.** Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:
   - While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
   - Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
   - Ask for and use the correct name and pronouns for your instructor and classmates.
   - Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.
   - Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
   - Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
   - Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
   - Avoid using “text-talk” unless explicitly permitted by your instructor.
   - Proofread and fact-check your sources.
   - Keep in mind that online posts can be permanent, so think first before you type. See these Engagement Guidelines (https://clear.unt.edu/online-communication-tips) for more information.

18. **Notice of Safety Regulations:**
   - All students must be certified (or approved) to work in the EMF Lab (F160) by the EMF Lab Manager, Mr. Rick Pierson.
   - All students are required to purchase their own eye protection, which is to be worn at all times while in the laboratory.
   - Suitable footwear has non slip soles and hard uppers which completely enclose the foot. Sandals are inappropriate.
   - It is strongly advised that jewelry not be worn on fingers or wrists while working on or around machinery.
   - Long, loose hair styles must be constrained to prevent engagement in moving machinery, tools work, etc.
• Neckties, necklaces and other similar items must be removed or tucked into the shirt to prevent engagement in moving machinery, tools work, etc.

• Compressed air may be used to clean parts and small tools only during designated laboratory work periods. Compressed air may, under no circumstances, be used to clean machinery, clothing or any part of one’s body.

• Consult with the instructor prior to attempting to lift or move heavy objects.

• Metal chips may be removed with a brush; never use fingers.

• Non-essential conversation with students operating machinery is prohibited.

• Do not to stop or slow revolving tools, chucks or work using fingers or hands.

• Unusual machine setups must be approved by the instructor prior to machining.

• Only official assignments may be undertaken during laboratory periods.

• Any liquid spills are to be wiped up immediately.

• Only officially enrolled students may enter and work in the laboratory.

• Machine guards/safety devices may not be removed or rendered inoperative.

• Equipment with faulty guards/safety devices is not to be used.

• Personal audio/visual devices, including cell phones, will not be used in the laboratory.

• Students with hidden medical conditions or handicaps, which may impact on their safe functioning in the laboratory, are requested to consult with the instructor.

• Any accident, regardless of severity, will be reported promptly to the instructor.

• Minimum of 2 qualified students in F160 to operate any equipment.

19. Academic Integrity Standards and Sanction for Violations: According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. Any violation of academic honesty in an exam or assignment will result in a grade of zero and a report to https://facultysuccess.unt.edu/academic-integrity.

20. Acceptable Student Behavior: Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student’s conduct violated the Code of Student Conduct. The University’s expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at deanofstudents.unt.edu/conduct.

21. Access to Information- Eagle Connect: Students’ access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to your Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail: eagleconnect.unt.edu/.

22. ADA Statement: UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one’s specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website at disability.unt.edu.
23. **Attendance Policy**: Attendance to live Zoom sessions to the fullest extent possible is highly encouraged as participation and interaction are important elements of the learning process. Responsibility for class attendance rests with the student. Student’s level of attendance contributes up to 5% as described. An absence may be excused for the following reasons: a religious holy day, including travel for that purpose; active military service, including travel for that purpose; participation in an official university function; illness or other extenuating circumstances; pregnancy and parenting under Title IX; and when the University is officially closed by the President. The student is responsible for requesting an excused absence in writing as early in the semester as possible, and personally delivering to me satisfactory evidence to substantiate the excused absence.

24. **COVID-19 Impact on Attendance**. While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me prior to being absent so I may make a decision about accommodating your request to be excused from class. If you are experiencing any symptoms of COVID-19 ([https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html)) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your own health, and those of others in the community, is more important.

6. **Statement on Face Covering**: Face coverings are required in all UNT facilities. Students are expected to wear face coverings during all on-campus activities of this course (face-to-face lab sessions, meetings etc.). If you are unable to wear a face covering due to a disability, please contact the Office of Disability Access to request an accommodation. UNT face covering requirements are subject to change due to community health guidelines. Any changes will be communicated via the instructor.

25. **Emergency Notification & Procedures**: UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

26. **Retention of Student Records**: Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Blackboard online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about students’ records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University’s policy.

27. **Student Perceptions of Teaching Effectiveness (SPOT)**: Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13 and 14 of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" ([no-reply@iasystem.org](mailto:no-reply@iasystem.org)) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the spot website at [www.spot.unt.edu](http://www.spot.unt.edu) or email spot@unt.edu.