MEET/ELET 4790 SENIOR DESIGN II
Spring 2020
3 credit hour, Wed 8:30-9:20 AM NTDP B155 (Lecture), Fri 8:30 AM -12:20 PM NTDP B155 (Lab)

Instructor Dr. Huseyin Bostanci
Office NTDP F115L
Office Hours Mon 1:00 - 3:00 PM, Wed 10:00 AM - 12:00 PM (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.

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<td>14. 4/17/20</td>
<td>Formal Poster and Oral Project Presentations on SD Day (takes place of 4/22/20 meeting)</td>
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**Week/ Date** | **Execution Plan**
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1. 1/15/20 | Introduce MEET 4790 course, review syllabus, discuss process and deliverables
2. 1/22/20 | Team presentations- I (~3 min. per team)- provide a quick recap of project status
3. 1/29/20 | Discuss Project Final Report Format: Cover Page, Table of Contents, Executive Summary, Sections I-IV
4. 2/05/20 | Discuss Project Final Report Format: Sections V-VII, Appendices
5. 2/12/20 | Discuss The Characteristics of Technical Writing
6. 2/19/20 | Team presentations- II (~10 min. per team)- present project progress focusing on fabrication and testing phases
7. 2/26/20 | Team presentations- II (~10 min. per team)- present project progress focusing on fabrication and testing phases
8. 3/04/20 | Team presentations- II (~10 min. per team)- present project progress focusing on fabrication and testing phases
9. 3/11/20 | Spring Break
10. 3/18/20 | Discuss NDA, Patents, Proprietary Work
11. 3/25/20 | Discuss Technological Innovation and Entrepreneurship
12. 4/01/20 | Team presentations- III (~10 min. per team)- practice formal oral project presentation
13. 4/08/20 | Team presentations- III (~10 min. per team)- practice formal oral project presentation
14. 4/15/20 | Team presentations- III (~10 min. per team)- practice formal oral project presentation
14. 4/17/20 | Attend Senior Design Day activities; conduct formal poster presentation and prototype demonstration in the morning, and oral project presentation in the afternoon
16. 4/29/20 | Complete Graduating Senior Survey, Student Evaluation of Program Outcomes, SPOT, Peer Evaluation
Grading Criteria

- Attendance (14 days) (Individual) 5%
- Weekly Sr. Design Project Update (total of 12) (Team) 20%
- Website (Team) 7.5%
- Draft Project Final Report (Team) 5%
- Project Final Report (Team) 35%
- Poster Session on SD Day (Team) 7.5%
- Oral Presentation on SD Day (Team) 10%
- 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 course website, Canvas, at [https://canvas.unt.edu/](https://canvas.unt.edu/) will be used for posting course materials, assignments, and grades, as well as for email communications. Students are encouraged to check the course website often.
5. Weekly sr. design project updates must be written using the template and include faculty advisor’s signature. **Project updates must be submitted on Wednesdays at the beginning of each class. Missing signatures will cause grade reduction, and late submissions will result in zero grade.**
6. Project proposal must be developed based on the suggested format that will be discussed in class.
7. 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.
8. For all classes, cell phones must be silenced. For exams, cell phones must be placed in backpacks and left at the front of the classroom.
9. No electronics, textbook, notes/notebooks are allowed in exam.
10. 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.
11. 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.
12. 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.
13. An “I” (incomplete) grade is given only for extenuating circumstances and in accordance with University and Departmental Policies.
14. 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.
15. **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, clothing or any part of one’s body.
- Consult with the instructor prior to attempting to lift or move heavy objects.
- One student only may operate a machine tool at a given time.
- Metal chips may be removed with a brush; never use fingers.
- Non-essential conversation with students operating machinery is prohibited.
- Do not 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.
- Running and any horseplay are expressly forbidden.
- Only officially enrolled students may enter and work in the laboratory.
- No food or beverages are permitted 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.

16. **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](https://facultysuccess.unt.edu/academic-integrity).

17. **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 deanolstudents.unt.edu/conduct.

18. **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/.

19. **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.

20. **Attendance Policy**: Attendance to the fullest extent possible is highly encouraged as engagement, participation and interaction are important elements of the learning process.

21. **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.

22. **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.

23. **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) 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 or email spot@unt.edu.