

Department of Engineering Technology

CNET 4780 – Senior Design I

Credit Hours: 1

Section 001 – Fall 2019 Syllabus

Meeting Times: Thurs.: 02:30 p.m. – 03:20 p.m.

Meeting Room: NTDP K120

INSTRUCTOR Aloysius (Al) Attah, Ph.D., P.E.		EVALUATION	
OFFICE	NTDP F115G	Project Milestones	35%
PHONE	(940) 565 – 2022	Semester Project Milestone Presentations	15%
E-MAIL	alloysius.attah@unt.edu	Comprehensive Project Plan Presentations	15%
OFFICE HOURS <i>Mon: 11:00 a.m. – 12:00 noon</i> <i>Tue: 01:30 p.m. – 02:30 p.m.</i> <i>Wed: 11:00 a.m. – 12:00 noon</i> Or By appointment		Comprehensive Project Plan Report	20%
		Individual Contribution, Participation, and Attendance	15%
		Total	100%
		Final Grade 90-100 = A 80-89 = B 70-79 = C 60-69 = D 0 – 59 = F	

COURSE DESCRIPTION:

Project teams specify, plan, and perform management analysis of an engineering or construction product or process. Oral and written documentation required. Projects will be supplied by the local construction industry whenever possible.

COURSE PREREQUISITES:

- CNET 3190, CNET 3440, CNET 3460. Senior standing

COURSE MATERIALS:

- All materials to be provided in class/on website, including excerpts from manuals, project documents from sponsors, etc.

COURSE OBJECTIVES:

At the conclusion of this course, students should be able to:

- *discuss* the construction project lifecycle from conception to completion as used in the construction industry.
- *implement* a team-based approach to construction projects.
- *prepare* preliminary versions of documentation regarding site logistics, budget, schedule, sustainability, value analysis, risk assessment, and business planning for a construction project.
- *communicate* the products of the planning process in oral and written formats.

COURSE OUTCOMES: (ABET Student Outcomes addressed):

- #10 Functioning effectively as a member or leader on a technical team. (ABET #4: an ability to function effectively as a member of a technical team).
- #12 Understanding of the need for and an ability to engage in self-directed continuous professional development.
- #14 Committing to quality, timeliness, and continuous improvement.

COURSE POLICY/GRADING:

Semester Project Milestones (SPM):

- Each project team will incorporate the SPM topics in their assigned projects as appropriate. In the event it is not possible to incorporate the SPM topics in any assigned project, the instructor will work with the team to address unique project requirements.
- The requirement for each milestone will be detailed in handouts to be distributed during class sessions.
- Each milestone will be due in the session listed in the course outline.
- There will be 7 milestones worth 5% each. Therefore, all the milestones will be worth 35% of the course grade.
- All members of the project team will receive the same grade for all milestones.
- Each team will present one of the milestones to the class for discussion in lieu of a milestone submission and ***will receive the points for that milestone on the basis of the class' evaluation of the team's presentation.***
- Only one late SPM will be accepted during the semester. It must be submitted by the next class session after which it is due, and it will be graded at a 2% penalty (i.e. the maximum grade possible for a late SPM will be 3%).
- The SPM presentation must be made on the date assigned to each team, and no late milestone presentations will be permitted

Project Plan:

- The projects will be supplied during the semester.
- After completing the semester project milestones, each team must compose a plan to complete the project requirements for their individual projects.
- Each project team must:
 - summarize the nature and objective of the project
 - outline the process and timeline by which the project requirements will be completed
 - clarify each team member's role in the process, and specific approaches each team member will take towards completing the project.

Extra Credit

- There is none.

COURSE OUTLINE: *Subject to change*

WEEK-DATE	TOPIC	WORK DUE
1 – Aug. 27	Review of syllabus / Start team formation.	
2 – Sept. 03	Finalize team formation. Topic 1: How to be a team.	Team contract
3 – Sept. 10	Pair Teams with Companies/Projects	
4 – Sept. 17	Topic 2: Elements of Effective Presentation / Technical Writing Guidelines	
5 – Sept. 24	Topic 3: Site logistics and layout.	
6 – Oct. 01	Team 1: Logistics/layout presentation. Topic 4: Budget.	
7 – Oct. 08	Team 2: Budget outline presentation. Topic 5: Schedule.	SPM1: Logistics/layout
8 – Oct. 15	Team 3: Rough schedule presentation. Topic 6: Sustainability.	SPM2: Budget outline
9 – Oct. 22	Team 4: Sustainability/green review presentation. Topic 7: Value analysis.	SPM3: Rough schedule
10 – Oct. 29	Team 5: Value analysis presentation. Topic 8: Risk assessment.	SPM4: Sustainability/green review
11 – Nov. 05	Team 6: Risk assessment presentation. Topic 9: Business plan.	SPM5: Value analysis
12 – Nov. 12	Topic 9 cont'd: Business plan.	SPM6: Risk assessment
13 – Nov. 19	Topic 10: Review of Problem Solving Steps	SPM7: Business Plan
14 – Nov. 26	Comprehensive project plan presentations (Teams 1, 2, and 3)	Comprehensive project plan report (11/26)
15 – Dec. 03	Comprehensive project plan presentations (Teams 4, 5, and 6)	
16 – Dec. 10	Finals Week – No Class	

OTHER POLICIES

Academic Integrity: <https://deanofstudents.unt.edu/academic-integrity>

This course will adhere to UNT academic policies, including those for academic integrity (<http://vpaa.unt.edu/academic-integrity.htm>) and overall conduct (<http://deanofstudents.unt.edu/conduct>). It is your responsibility as a UNT student to be familiar with these policies, but feel free to ask the instructor any questions pertaining to these.

ADA Policy

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability

Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable 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 reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at <http://disability.unt.edu/>. You may also contact them by phone at [940.565.4323](tel:940.565.4323).

Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the Electronic Code of Federal Regulations website at <http://www.ecfr.gov/>. The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

- (1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
- (2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

PRESENTATION GRADING GUIDE

PRESENTER NAME _____ COURSE NAME _____

SEMESTER _____ PROJECT TITLE _____

EVALUATION TOPIC	POSSIBLE POINTS	COMMENTS
1. Subject Introduction	0 1 2	_____
2. Organization of Topics	0 1 2 3	_____
3. Clear Descriptions	0 1 2 3	_____
4. Emphasized Pertinent Information	0 1 2	_____
5. Quality and Effective Use of Visual Aids	0 1 2 3	_____
6. Effective Conclusion	0 1 2 3	_____
7. Composure and Speaking	0 1 2 3 4 5 6 7 8 9 10	_____
8. Effective Demonstration with a working model	0 1 2 3 4 5 6 7 8 9 10	_____
9. Project Technical Content	0 1 2 3 4 5 6 7 8 9 10	_____
10. Subjective Evaluation	0 1 2 3 4	_____
Composite Score		_____

EVALUATOR'S COMMENTS _____

WRITTEN GRADING GUIDE

NAME _____ COURSE NAME _____

REPORT DATE _____ DUE DATE _____

PROJECT TITLE _____

EVALUATION TOPIC	POSSIBLE POINTS	COMMENTS
1. Objective	10	_____
2. Diagrams	10	_____
3. Expected Results	10	_____
4. Original Data Sheets	20	_____
5. Analysis of Results	10	_____
6. Conclusions	10	_____
7. Supportive Data	10	_____
8. Comments	10	_____
9. Professionalism signature	10	_____

Composite Score _____

EVALUATOR'S COMMENTS

Evaluator: _____

Date completed: _____