1. Course Number and Name
   a. ENGR 1201: Introduction to Engineering, Fall 2020
   b. Lecture: Sec 02 Tuesdays 9:30am-11:30am

2. Credits and Contact Hours
   a. Credits: 2
   b. Contact Hours: 2 hours/week (Classroom)

3. Instructor Information
   a. Course Coordinator: William Kitch
   b. Instructor: Andrea Robledo, 325-486-5503, Andrea.Robledo@angelo.edu, Office: VIN 283. For office hours see faculty homepage.
   c. Co-Instructor: Anthony Battistini, 325-486-5511, abattistini@angelo.edu, Office: VIN 271

4. Course Materials
   b. Top Hat Subscription: https://app.tophat.com/register/student You can visit the Top Hat Overview (https://success.tophat.com/s/article/Student-Getting-Started-with-Top-Hat) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.
      a. Note: Our Course Join Code is 820016
   c. Blackboard® Learning Management System: All assignments and other supplemental materials are posted here.

5. Specific Course Information
   a. Catalog Description: An introduction to the engineering profession with emphasis on technical communication and team-based engineering design.
   b. Prerequisites: None
   c. Required Course

6. Specific Goals for the Course
   a. Course Learning Outcomes:
      1. Work effectively in teams to accomplish course assignments.
      2. Create a personalized curriculum plan to graduate with your engineering degree and describe the licensing processes for practicing engineers.
      3. Prepare technical engineering reports formatted according to professional standards.
      4. Follow the engineering design process to solve engineering challenge.
      5. Apply basic engineering tools to solve simple problems.
      6. Evaluate multiple learning strategies and select the strategies best suited to the content and context of the material/course based on your preferred learning style.
      7. Demonstrate use of time management strategies to complete long- and short-term projects/assignments on a team or as an individual.
b. Course Learning Outcome Mapping to ABET Criterion 3 Student Outcomes:

Table 1: Course Learning Outcomes mapped to ABET Student Outcomes

<table>
<thead>
<tr>
<th>ABET Student Outcomes</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Solve Problems</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>2. Design</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>3. Communication</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>4. Ethics &amp; Professionalism</td>
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<td></td>
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<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5. Teamwork</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>6. Experimentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>7. Acquire New Knowledge</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

7. Topics Covered

1. Student Success Skills
2. Engineering Design Process
3. Engineering Tools
4. Personal and Professional Development

8. Course structure and communication

There will be very little lecture during class. Instead of in class lectures, we will spend our class time working in groups to accomplish the learning outcomes. You are expected to complete reading material before class. This will give us time in class to work on problems and projects. We will be using Blackboard to communicate during this course. Assignments and grading rubrics will be delivered via Blackboard.

9. Professionalism

One of the goals of this course is to teach students about professionalism, including the standards and expected behavior of your chosen profession. With this in mind, students are expected to demonstrate a behavior consistent with the conduct of an individual practicing in the engineering profession. Students are expected to: (1) come prepared for class; (2) respect faculty and peers; (3) demonstrate responsibility and accountability for your own actions; (4) build community alongside others from diverse cultures, backgrounds, and life experiences; (5) offer and accept constructive criticism in a productive manner; (6) demonstrate an attitude that fosters professional behavior among peers and faculty; (7) be punctual to class and team meetings; (8) maintain a good work ethic and integrity; and (9) recognize the classroom as a professional workplace.

10. Graded Material

10.1 Class Attendance, Participation, Timeliness and Teamwork

The number one complaint of engineering clients is the timeliness of deliverables (reports, drawings, specifications, etc). As a professional engineer you will be expected to arrive at scheduled meetings (class and team meetings) on time and prepared. Professional engineering standards apply in this course.

We will be using Top Hat Pro (www.tophat.com) for class participation and attendance. You will be able to check-in to class and submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. An email invitation will be sent to you by email, but if don’t receive this email, you can register by simply visiting our course website. Note: Our Course Join Code is 820016
Should you find it necessary to miss a class for any reason, you are expected to notify your instructor as early as possible—preferably before the absence. See email sample in section

Unless otherwise specified, assignments are due at the beginning of the class period on the specified due date. Late assignments will be subject to point deductions determined by the professor.

Nearly all worthwhile accomplishments from raising a family to landing a rover on Mars are the work of teams. Engineering is no exception. All significant engineering projects are completed by teams. You will be assigned to a team during the semester. The purposes of these teams is to give you practice working in teams and to provide a support group for you within the class.

10.2 Journal (Individual Assignment)

Each week you will complete a journal entry based on the prompts provided. Your journals will be graded based on completeness and quality of the entries. The lowest journal grade will be dropped.

10.3 Homework (Individual Assignment)

Homework will be due at most class meeting. These assignments will be made & submitted via Blackboard. Your lowest homework grade will be dropped.

10.4 SMART Goals Project (Individual Assignment)

You will write 5 SMART goals and develop a graduation plan and track your progress.

10.5 Site Visit Report Project (Team Assignment)

Your team will visit a professional engineering, architecture, or construction firm in the San Angelo area. Your team will prepare a professional site visit report documenting this visit.

10.6 K'NEX Bridge Design Project (Team Assignment)

Your team will be challenged to build a K'NEX bridge to meet certain design requirements. Bridges will be tested to failure. The project grade will include required sub-assignments.

10.7 Engineering Design Challenge Project (Team Assignment)

This is the culminating project for this class. Your team will select an engineering design project, use the engineering design process to build and test your prototype according to the given design requirements. The project grade will include required sub-assignments.

10.8 Grades: Weighting and Letter Grades

The weighting system shown in Table 2 will be used in determining final grade for the course

<table>
<thead>
<tr>
<th>Item</th>
<th>Starting Percent</th>
<th>Class Consensus Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class attendance</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Journal (Lowest Drop)</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Homework (Lowest Drop)</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>SMART Goals Project</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>K’NEX Bridge Project</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Site visit report</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Engineering Design Challenge</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
The instructor will determine letter grades for the course using his professional judgment, and the following standards as described in the University Catalog:

A = excellent work  B = good work  C = average work  D = poor work  F = failing work

11. Classroom and University Policies and Student Support

11.1 General Policies

All students are required to follow the policies and procedures presented in the Angelo State University Student Handbook\(^1\) and Angelo State University Catalog\(^2\).

11.2 Student Disability Services

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website\(^3\). The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford, Director of Student Disability Services, Office of Student Affairs
325-942-2047   dallas.swafford@angelo.edu   Houston Harte University Center, Room 112

11.3 Title IX Statement

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Boone, J.D. You may submit reports in the following manner:

Online: Incident Reporting From\(^4\)   Email: michelle.boone@angelo.edu
Phone: 325-942-2022   Face to face: Mayer Administration Building, Room 210

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).
For more information about resources related to sexual misconduct, Title IX, or Angelo State’s policy please visit the Title IX webpage.

11.4 Observance of Religious Holy Day
A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

11.5 Incomplete Grade Policy
It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

11.6 Student Conduct Policies

Academic Integrity
Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of academic dishonesty is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.

Plagiarism
Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

Copyright Policy
Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

12. Required Use of Masks/Facial Coverings by Students
As a member of the Texas Tech University System, Angelo State University has adopted the mandatory Facial Covering Policy to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the
best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

13. Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

14. Professional Email Sample

An important part of this course is learning how to communicate professionally as an engineer. Below are sample emails for communicating with your professors.

14.1 When you need to miss class

To: Professor Bella
Subject: Dominic Ram September 16 Absence

Professor Bella,
My name is Dominic Ram (CID 8135550). I will not be in class on September 16, 2018 because [reason].

[Pick one of the following]

- I will visit you during your office hours on Wednesday, September 14 to collect any class work that I will miss and to turn in all my assignments due that day.
- I would like to make an appointment with you to collect any missing work from class and to turn in home work that is due that day. I am free at these times:
  - Monday, September 12 from 9am to 3pm
  - Tuesday, September 13 from 8am to 12pm

Thank you for your assistance,
Dominic Ram
(CID 8135550)
14.2 When you have a question about class/assignment

To: Professor Bella
Subject: Dominic Ram ENGR 1201-010 Question

Professor Bella,
My name is Dominic Ram (CID 8135550). I am in your ENGR 1201 section 010 class that meets on Tuesdays from 2pm-3:50pm. After class on Tuesday, I had a question that I wanted to ask about: [select an options below:]

- ...our assignment due Tuesday. [Ask Questions]
- ... the requirements for [assignment]. [Ask Questions]
- ...my grade on the WCES project. [Ask Questions]

[Pick one of the following]

- Would it be possible for me to discuss this matter with on during your office hours on Wednesday, September 14?
- I would like to make an appointment with you to discuss the matter. I am free at these times:
  o Monday, September 12 from 9am to 3pm
  o Tuesday, September 13 from 8am to 12pm

Thank you for your assistance,
Dominic Ram
(CID 8135550)

15. Course Outline

The course outline is provided in Table 3. Detailed reading and homework assignments along with updates to this schedule will be provided via Blackboard. The following schedule may be modified as the semester progresses.
### Table 3: Course Lecture Schedules

<table>
<thead>
<tr>
<th>Wk</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Module 1: Student Success Tools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Course Introduction</td>
<td>Syllabus Landis: Prologue, 1.2-1.5</td>
<td>HW1 A &amp; B: All About Me &amp; Peer Review Journal 1</td>
</tr>
<tr>
<td>2</td>
<td>Learning Styles</td>
<td>Landis: 3.2-3.7, 4.3-4.5, 5.1-5.4 p 194-196</td>
<td>HW2 A, B, C: Learning Styles Journal 2</td>
</tr>
<tr>
<td></td>
<td><strong>Module 2: Engineering Design</strong></td>
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<tr>
<td>3</td>
<td>Engineering Design Process &amp; Teamwork</td>
<td>Landis 2.1-2.3, Appedix B pp309-310, 6.4-6.6</td>
<td>SMART Goals Part 1A &amp; B Journal 3</td>
</tr>
<tr>
<td>4</td>
<td>Engineering Design Process Cont.</td>
<td>Landis 6.7</td>
<td>HW3: Engr Logbook Set-up KB1: Team Agreement; KB2: WBS &amp; Gantt Chart Journal 4</td>
</tr>
<tr>
<td>5</td>
<td>K’NEX Bridge Building</td>
<td>None</td>
<td>HW5 A &amp; B: Draft Tech Report &amp; Peer Review Journal 5</td>
</tr>
<tr>
<td>6</td>
<td>K’NEX Bridge Testing</td>
<td>None</td>
<td>KB3: Oral Presentation &amp; KB4: Logbook KB5: Bridge Testing Journal 6</td>
</tr>
<tr>
<td></td>
<td><strong>Module 3: Engineering Tools</strong></td>
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</tr>
<tr>
<td>7</td>
<td>MS-Word Report Tools</td>
<td>Landis Ch 2.9-2.10</td>
<td>KB6: Tech Rpt &amp; KB 7: CATME Review Journal 7</td>
</tr>
<tr>
<td>8</td>
<td>Precise Language &amp; Unit Conversions</td>
<td>None</td>
<td>HW8: Units Journal 8</td>
</tr>
<tr>
<td>9</td>
<td>Problem Solving &amp; MS-Excel</td>
<td>Landis 2.9</td>
<td>HW9: Excel; Journal 9 Site Visit Rpt SMART Goals Part 2</td>
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<td></td>
<td><strong>Module 4: Personal &amp; Professional Development</strong></td>
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<tr>
<td>10</td>
<td>Student &amp; Alumni Panel &amp; Engineering Design Challenge Kickoff</td>
<td>Landis: 2.4-2.8, 2.10-2.11 6.1-6.3, 6.5, 6.8 8.8-8.9</td>
<td>HW10 A: Grand Challenges Quiz HW10 B: Augmented KB Technical Report Journal 10</td>
</tr>
<tr>
<td>11</td>
<td>Counselling Center 7 EDC work</td>
<td>Landis: 7.1-7.5, 8.4-8.7</td>
<td>EDC1: Team Agmt; EDC2: WBS &amp; Gantt Chart Journal 11</td>
</tr>
<tr>
<td>12</td>
<td>EDC Work Session</td>
<td>None</td>
<td>Journal 12</td>
</tr>
<tr>
<td>13</td>
<td>EDC Testing and Presentation</td>
<td>None</td>
<td>EDC3: Oral Presentation, EDC4: Logbook EDC5: Build Testing</td>
</tr>
<tr>
<td>14</td>
<td>No class meeting</td>
<td>None</td>
<td>EDC6: Tech Report; EDC7: CATME Review</td>
</tr>
<tr>
<td>15</td>
<td>No Final Exam</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**End Notes**

6. http://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of
7. https://www.angelo.edu/content/files/14197-op-1011-grading-procedures