

COURSE ASSESSMENT REPORT

**ROY G. PERRY COLLEGE OF ENGINEERING
MECHANICAL ENGINEERING DEPARTMENT
PRAIRIE VIEW A&M UNIVERSITY**

ASSESSMENT REPORT COVER PAGE

**MCEG 1102 Introduction to Mechanical Engineering
Drawing and Design Lab I**

FALL 2021 SEMESTER

NAME OF INSTRUCTOR: Dr. Chang Duan

Revised: 12/17/2021

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 - 5.1** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
(outcome 2)

Detailed Course Syllabus
(Distributed to Students at the beginning of the Semester)
ABET outcomes measured using this course should be
explicitly listed in the syllabus

Course Description in ABET Format

MCEG1102 Introduction to Mechanical Engineering Drawing and Design Lab I

1.	Course number and name:	MCEG 1102 Introduction to Mechanical Engineering Drawing and Design Lab I
2.	Credits and contact hours:	1 credit hours
3.	Instructor's or course coordinator's name:	Dr. Chang Duan
4.	Text book: Title:	Engineering Graphics Essentials
	Author:	Kirstie Platenberg
	Publisher, Year & Edition:	Schroff Development Corporation, 2010, 4 th Edition
	a. Other Supplemental material	Gary R. Bertoline, Eric N. Wiebe, <i>Fundamentals of Graphics Communication</i> , Fifth edition, McGraw-Hill, 2005.
5.	Specific course information	
	a. Brief description of the content of the course (catalog description)	This course will require students to generate a master model and a set of design documents using solid modeling software.
	b. Prerequisites or Co-requisites	None
	c. *Indicate whether a required, elective, or selected elective (as per definition provided) course in the program	Required
6.	a. Specific goals for the course specific outcomes of instruction (e.g. The student will be able to explain the significance of current research about a particular topic.) <i>Students will be able to :</i>	b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course. <i>The specific goals for the course specific outcomes listed on the left column will address the following student learning outcomes:</i>
	1. Create and edit solid models	
	2. Create and modify drawings	

	3. create and modify basic assembly structures	Outcome 2 An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factor (including use of the techniques, skills, and modern engineering tools necessary for engineering practice).
	4. open-ended design of student's choice	
7	Brief list of topics to be covered	1. Introduction to the engineering drawing, design process, CAD/CAM system concept (1 classes) 2. Engineering technical drawing (2 classes) 3. Introduction to master model concept and Unigraphics software (1 classes) 4. Create and edit solid model solid modeling using Unigraphics (6 classes) 5. Create and modify drawings (2 classes) 6. Assembly of the parts (2 classes) 7. Analysis (1 classes) 8. Report writing (1 class)

Additional Course Syllabus Information

CLASS HOURS **Online**

CLASS ROOM **Online**

OFFICE **C.L. Wilson Engineering Complex Room 105H**

OFFICE HOURS **As Posted**

TELEPHONE **(936)261-9954**

GRADING The final grade will be computed according to the following weight distribution:

Homework	25%
Projects	40%
Exams	35%

The distribution of grades will be as follows:

A	=	90	-	100
B	=	80	-	89
C	=	70	-	79
D	=	60	-	69
F	=	0	-	59

COURSE POLICY **Note:** The instructor reserves the right to alter it during the semester.

Use of Ecourses (<http://ecourses.pvamu.edu>)

Ecourses will be used extensively in this class. Lecture slides, assignment, and tutorials will be provided on Ecourses.

Academic Integrity

Academic dishonesty of any sort (plagiarism, cheating, fabrication or facilitation) is prohibited under any circumstance. **Any detected actions of dishonesty will cause the failure of the class directly.**

Assignments & Due Dates

Homework will be submitted at the beginning of class on the assigned day. **Late homework will be charged a 20% penalty for each day late – weekend days do count.** Circumstances beyond your control (i.e. illness, weather, etc.) will be considered as required.

Projects

You need to submit all the projects (electronic copy) on Ecourses.

Attendance

Class attendance is mandatory. **Being late class for more than 15 minutes will count as one absence.** Viewing the recorded sessions within two days of posting is expected. You should notify the instructor if you can neither attend nor review the recorded sessions within two days of posting.

Examinations

No makeup test will be given. You will be expected to complete the exam in the allotted time period. Portions of each exam may be either closed or open book. You will be notified of the exam format at least one week in advance.

**IMPORTANT
DATES**

<https://www.pvamu.edu/registrar/academic-calendars/fall-2021-16-week-session/>

Introduction to Mechanical Engineering Drawing and Design Lab I

Tentative Course Schedule

WEEK	Lecture & LAB	SELF EXERCISE (CAST)	REMARKS
1 st week	Introduction to the design process, CAD/CAM system concept; Introduction to engineering drawing and sketching; Getting started in UG; Creating a block with a hole	Sphere, Cone	
2 nd week	Engineering technical drawing (I); Create primitives: Block, Cylinder, Hole, Slot, Pocket	Pad, Boss	
3 rd week	Engineering technical drawing (II); Geometric Elements; Form features: Extrusion, Sweep, Blend; Suppress by expression	Form Features – Extrusion, Hollow, Revolve, Sweep, Blend	
4 th week	Boolean operations; Overview of project 1		
5 th week	Sketches	Completion of Project 1	
6 th week	Expressions Feature Operations Boolean Operations	Design projects (any 4 from the CAST tutorials)	
7 th week	Drafting		
8 th week	Mid-term Exam		
9 th week	Concepts of Assembly Project 3 proposal presentation		
10 th week	Final Project Proposal Presentation Project 2 Assembly	Assembly modeling	
11 th week	Freeform Modeling	Assembly modeling, Completion of Project 2	
12 th week	Assembly Analysis Modeling of parts for Project 3		
13 th week	Final Project Presentation, Review	Completion of Project 3	
14 th week	Final Exam		

How Mechanical Engineering Courses meet Department Objectives & ABET Criterion 3
Specific Objectives of the Mechanical Engineering Program (**MCEG Objectives**) at Prairie View A&M are to produce graduates who have:

1. the techniques and skills necessary for modern mechanical engineering practices, and an ability to function effectively in multi-disciplinary teams.
2. an ability in life-long learning skills, a knowledge of contemporary issues, and an ability to communicate effectively.
3. an understanding of global and societal context in the aspects of professional and ethical responsibility and the impact of engineering solutions on society.
4. the qualifications to be employed by major industries and government agencies in the State of Texas and the nation.
5. the qualifications to pursue graduate degrees.

ABET Criterion 3: Program Outcomes and Assessment

Engineering Programs must demonstrate that their graduates have:

- (1) the ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
- (2) the ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factor;
- (3) the ability to communicate effectively with a range of audiences;
- (4) the ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
- (5) the ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
- (6) ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions;
- (7) the ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The table below shows how required Mechanical Engineering courses at Prairie View A&M University contribute to the student's knowledge and ability to meet ABET criterion 3.

Numerical values – items that the course contents are significantly relevant to ABET Criterion 3 and the instructor will use these items for course assessment. The values represent for “contribution factor” of the specific course toward the assessment of the particular item of ABET Criterion 3. A summation of the values in each column equals to 100.

x – items that the course contents are somewhat relevant to ABET Criterion 3. However, the instructor will not use these items for course assessment.

MCEG Courses	ABET EAC Student Outcomes 1-7							
	Fall 2018	Spring 19	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022
1021 Mech. Drawing & Desg.	2	2	2	2	2	2	2	2
2013 Thermodynamics I	8	8	8	8	8	8	8	8
2023 Materials Sci/Engr.	8	8	8	8	8	8	8	8
2053 Engineering Mechanics II	8	8	8	8	8	8	8	8
3011 Measurement Lab	7	6	7	6	7	6	7	6
3013 Heat Transfer	1		1		1		1	
3021 Thermal Sci. Lab	6	6	6	6	6	6	6	6
3023 Thermodynamics II	1	1	1	1	1	1	1	1
3031 Manufacturing Lab		2		4.2		2		4.2
3033 Manufacturing Proc		2		4.2		2		4.2
3043 Machine Design I	2		2		2		2	
3053 Kinematic Design	1		1		1		1	
3063 Fluid Mechanics	1	6	1	6	1	6	1	6
4043 Machine Design II	2		2		2		2	
4063 Dynamic Systems		1		1		1		1
4093 Finite Element	1		1		1		1	
4472 Senior Project I	4, 5		4, 5		4, 5		4, 5	
4482 Senior Project II		2,3,7		2,3,7		2,3,7		2,3,7

MCEG 1102 Course Objectives and Anticipated Outcomes

Course Objectives

1. Introduce the students the concept of the design process, engineering technical drawing, and solid modeling. (1, 4)

Anticipated Outcomes: The students will be able to design a component and system. (ABET outcome 2)

2. Teach students how to use modern solid modeling software to accomplish engineering design tasks. (1, 2, 4)

Anticipated Outcomes: The students will be able to using NX3 to design parts and assembly, write technical project reports and make technical presentations. (ABET outcome 2)

Student Support and Success

John B. Coleman Library

The John B. Coleman Library's mission is to enhance the scholarly pursuit of knowledge, to foster intellectual curiosity, and to promote life-long learning and research through our innovative services, resources, and cultural programs, which support the Prairie View A&M University's global mission of teaching, service, and research. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. Website: <https://www.pvamu.edu/library/>; Phone: 936-261-1500

Academic Advising Services

Academic Advising Services offers students a variety of services that contributes to student success and leads towards graduation. We assist students with understanding university policies and procedures that affect academic progress. We support the early alert program to help students get connected to success early in the semester. We help refer students to the appropriate academic support services when they are unsure of the best resource for their needs. Faculty advisors support some students in their respective colleges. Your faculty advisor can be identified in PantherTracks. Advisors with Academic Advising Services are available to all students. We are located across campus. Find your advisor's location by academic major at www.pvamu.edu/advising. Phone: 936-261-5911

The University Tutoring Center

The University Tutoring Center (UTC) offers free tutoring and academic support to all registered PVAMU students. The mission of the UTC is to help provide a solid academic foundation that enables students to become confident, capable, independent learners. Competent and caring staff and peer tutors guide students in identifying, acquiring, and enhancing the knowledge, skills, and attitudes needed to reach their desired goals. Tutoring and academic support are offered face-to-face in the UTC, in virtual face-to-face sessions (<https://www.pvamu.edu/student-success/sass/university-tutoring-center/>), and through online sessions (<https://www.pvamu.edu/pvplace/>). Other support services available for students include Supplemental Instruction, Study Break, Academic Success Workshops, and Algebra Study Jam. Location: J. B. Coleman Library, Rm. 307; Phone: 936-261-1561; Email: pvtutoring@pvamu.edu; Website: <https://www.pvamu.edu/student-success/sass/university-tutoring-center/>

Writing Center

The Writing Center provides well-trained peer tutors to assist students with writing assignments at any stage of the writing process. Tutors help students with various writing tasks from understanding assignments, brainstorming, drafting, revising, editing, researching, and integrating sources. Students have free access to Grammarly online writing assistance. Grammarly is an automated proofreading and plagiarism detection tool. Students must register for Grammarly by using their student email address. In addition, students have access to face-to-face and virtual tutoring services either asynchronously via email or synchronously via Zoom. Location: J. B. Coleman Library, Rm. 209; Phone: 936-261-3724; Website: <https://www.pvamu.edu/student-success/writing-center/>; Grammarly Registration: <https://www.grammarly.com/enterprise/signup>

Academic Early Alert

Academic Early Alert is a proactive system of communication and collaboration between faculty, academic advisors, and PVAMU students that is designed to support student success by promptly identifying issues and allowing for intervention. Academic Early Alerts help students by providing a central location to schedule advising appointments, view advisor contact information, and request assistance. Students who recognize that they have a problem that is negatively affecting their academic performance or ability to continue school may self-refer an Academic Early Alert. To do so, students will log in to PV Place and click on Academic Early Alert on the left sidebar. Phone: 936-261-5902; Website: <https://www.pvamu.edu/student-success/early-alert/>

Student Counseling Services

The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and assists students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in

accordance with Texas State Law. Location: Hobart Taylor, 2nd floor; Phone: 936-261-3564; Website: <https://www.pvamu.edu/healthservices/student-counseling-services/>

Office of Testing Services

Testing Services serves to create opportunities by offering a suite of exams that aid in the students' academic and professional success. Currently, we administer entrance (HESI A2), college readiness (TSI assessment), Prior Learning (CLEP, DSST), and proctored exams. Location: Wilhelmina Delco, 3rd Floor, Rm. 305; Phone: 936-261-3627; Email: aetesting@pvamu.edu; Website: www.pvamu.edu/testing

Office of Diagnostic Testing and Disability Services

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, contact the Office of Disability Services. As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring non-standardized test administrations, ASL interpreters, ALDs, digital recorders, Livescribe, and a comprehensive referral network across campus and the broader community. Location: Hobart Taylor, Rm. 1D128; Phone: 936-261-3583; Website: <https://www.pvamu.edu/disabilityservices/>

Center for Instructional Innovation and Technology Services (CIITS)

Distance Learning, also referred to as Distance Education, is the employment of alternative instructional delivery methods to extend programs and services to persons unable to attend college in the traditional manner. The Center for Instructional Innovation and Technology Services (CIITS) supports student learning through online, hybrid, web-assist, and 2-way video course delivery. For more details and contact information, visit:

<https://www.pvamu.edu/dlearning/distance-learning-2-2/students-2/>; Phone: 936-261-3283

Veteran Affairs

Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall, Rm. 102; Phone: 936-261-3563; Website: <https://www.pvamu.edu/sa/departments/veteranaffairs/>

Office for Student Engagement

The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development, and campus governance. Location: Memorial Student Center, Rm. 221; Phone: 936-261-1340; Website: <https://www.pvamu.edu/studentengagement/>

Career Services

Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Anderson Hall, 2nd floor; Phone: 936-261-3570; Website: <https://www.pvamu.edu/careerservices/>

University Rules and Procedures

Academic Misconduct

Academic dishonesty is defined as any form of cheating or dishonesty that has the effect or intent of interfering with any academic exercise or fair evaluation of a student's performance. The college faculty

can provide additional information, particularly related to a specific course, laboratory, or assignment.

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with the *University Administrative Guidelines on Academic Integrity*, which can be found on the [Academic Integrity webpage](#). Students who engage in academic misconduct are subject to university disciplinary procedures. As listed in the *University Administrative Guidelines on Academic Integrity*, the University Online Catalog, and the Student Code of Conduct, the following are examples of prohibited conduct. This list is not designed to be all-inclusive or exhaustive. In addition to academic sanctions, any student found to have committed academic misconduct that is also a violation of criminal law may also be subject to disciplinary review and action by the Office of Student Conduct (as outlined in the Student Code of Conduct).

Forms of Academic Dishonesty:

1. **Cheating:** Deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not learned, giving or receiving aid unauthorized by the instructor on assignments or examinations. Examples: unauthorized use of notes for a test; using a "cheat sheet" on a quiz or exam; any alteration made on a graded test or exam which is then resubmitted to the teacher;
2. **Plagiarism:** Careless or deliberate use of the work or the ideas of another; representation of another's work, words, ideas, or data as your own without permission or appropriate acknowledgment. Examples: copying another's paper or answers, failure to identify information or essays from the internet and submitting or representing it as your own; submitting an assignment which has been partially or wholly done by another and claiming it as yours; not properly acknowledging a source which has been summarized or paraphrased in your work; failure to acknowledge the use of another's words with quotation marks;
3. **Collusion:** When more than one student or person contributes to a piece of work that is submitted as the work of an individual;
4. **Conspiracy:** Agreeing with one or more persons to commit an act of academic/scholastic dishonesty; and
5. **Multiple Submission:** Submission of work from one course to satisfy a requirement in another course without explicit permission. Example: using a paper prepared and graded for credit in one course to fulfill a requirement and receive credit in a different course.

Nonacademic Misconduct

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. The Office of Student Conduct will adjudicate such incidents under nonacademic procedures.

Sexual Misconduct

Sexual harassment of students and employees at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating the university's sexual harassment policy will be subject to disciplinary action. In accordance with the Texas A&M University System guidelines, your instructor is obligated to report to the Office of Title IX Compliance (titleixteam@pvamu.edu) any instance of sexual misconduct involving a student, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which the instructor becomes aware during this course through writing, discussion, or personal disclosure. The faculty and staff of PVAMU actively strive to provide a learning, working, and living environment that promotes respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like assistance or have questions, they may contact the Title IX Coordinator at 936-261-2144 or titleixteam@pvamu.edu. More information can be found at www.pvamu.edu/titleix, including confidential resources available on campus.

Pregnancy, Pregnancy-related, and Parenting Accommodations

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related conditions, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Disability Services or the Dean of Students' Office for additional information and to request accommodations.

Non-Discrimination Statement

Prairie View A&M University does not discriminate on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or gender identity in its programs and activities. The University is committed to supporting students and complying with The Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of discrimination or harassment, we encourage you to report it. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Director of Equal Opportunity & Diversity has been designated to handle inquiries regarding the non-discrimination policies and can be reached at Harrington Science Building, Suite 109 or by phone at 936-261-1744 or 1792.

Class Attendance Policy (See the University Online Catalog for Full Attendance Policy)

Prairie View A&M University requires regular class attendance. Attending all classes supports the full academic development of each learner, whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or the internet. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in the assignment of a grade of "F." Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University's attendance policy in each course syllabus.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rest with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the University Online Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

Technical Considerations

Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 10 or later version; Mac with OS High Sierra*
- Smartphone or iPad/Tablet with Wi-Fi*
- High-speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, or Firefox

Note: Be sure to enable Java & pop-ups in the Web browser preferences

* Smartphones, Google Chrome books, and Android tablets may not be supported. iPads are the only tablets supported.

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email

- A working knowledge of the Internet
- Microsoft Word (or a program convertible to Word)
- Acrobat PDF Reader
- Windows or Mac OS
- Video conferencing software

Netiquette (online etiquette)

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussion boards. Foul or abusive language will not be tolerated. Do not use ALL CAPS for communicating to others AS IT CAN BE INTERPRETED AS YELLING. Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you." Limit and possibly avoid the use of emoticons. Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post, and the message might be taken seriously or sound offensive.

Video Conferencing Etiquette

When using Zoom, WebEx, or other video conferencing tools, confirm the visible area is tidy, clear of background clutter, inappropriate or offensive posters, and other distractions. Ensure you dress appropriately and avoid using high traffic or noisy areas. Stay muted when you are not speaking and avoid eating/drinking during the session. Before the class session begins, test audio, video, and lighting to alleviate technology issues.

Technical Support

Students should go to <https://mypassword.pvamu.edu/> if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services at 936-261-3283 or email ciits@pvamu.edu.

Communication Expectations and Standards

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can occur in a seminar fashion. The use of the discussion board will accomplish this. The instructor will determine the exact use of discussion boards.

It is strongly suggested that students type their discussion postings in a word processing application such as Word and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, copy and paste to the discussion board.

COVID-19 Campus Safety Measures

To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, PVAMU has adopted policies and practices to limit virus transmission.

- **Self-monitoring** - Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction.
- **Face Coverings** - Face coverings (cloth face covering, surgical mask, etc.) are recommended in classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource, and support offices, and outdoor spaces where 6 feet of physical distancing is challenging to maintain reliably.

- **Physical Distancing** - Physical distancing should be maintained between students, instructors, and others in course and course-related activities where possible.
- **Personal Illness and Quarantine** - Students required to quarantine are to participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities. Students experiencing personal injury or illness that is too severe for the student to attend class qualify for an excused absence. To receive an excused absence, students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu.

End of Semester Course Assessment Report

This summary contains the following Information

1. Performance Statistics

- Total number of students in class
- The class average performance (**stated as %**) in each course outcome assessed in this class and the **two previous times course was assessed**.
- The acceptable class average for the class in each outcome area as set by your Department. **You cannot use any number of your choice**
- Percentage of students who scored below the expected average in each outcome.

2. Implementation Summary

- Brief summary of plans implemented during the semester based on last assessment report

3. Perceived Problems

- Instructor's **critical evaluation** of perceived problems that affected students' performance. **Realistic problems should be identified throughout the semester and summarized in this section of the report.**

4. New Plans for Addressing Problems

- Instructor's plans for addressing the perceived problems the next time the class is taught. **These should be specific enough for another instructor to implement. Most of these should be things that, you, the instructor can implement to help students to improve. Be creative.**

5. Overall Trend over last three assessment periods

- Instructor's summary of overall performance trend for each outcome measured over the last three periods.

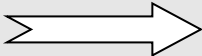
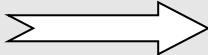
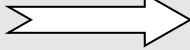
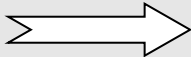
5. Were Expectations Met?

- Answer **YES** if the **class average was above the expected average** and the **stated percentage of students** scored at or above the expected average, else answer **NO**.

END OF SEMESTER COURSE OUTCOME ASSESSMENT REPORT
MCEG 1102-P04 INTRODUCTION TO MECHANICAL ENGINEERING DRAWING AND DESIGN
LAB I
FALL 2021 SEMESTER

Report Prepared by: Dr. Chang Duan

Report Date: December 17, 2021

Semester	Analysis Type	Number of Students	Outcome 2 an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors			
			Expected Class Average	Expected Percent of students at or above average	Class Average	% Students meeting Expected Average
Fall 2021	Direct	21	70	70	87.4	90.5
Fall 2020	Direct	13	70	70	81.8	76.9
Fall 2019	Direct	17	70	70	77.3	75
Fall 2018	Direct	12	70	70	84.6	83.3
Implementation Summary	Items implemented from previous report or after meeting previous instructor 		Extra learning tutorial are provided to students for the self-learning after class. TA sessions are made available to students.			
Perceived Problems	Perceived problems are directly related to the PC and the sub items under them 		More tutorials are needed for students to further their study. Freshmen needs constant reminder on deadlines. Students are weak in planning the modeling process of 3D models. Face-to-face mode helps to engage student better. Students who attended most classes performed well.			
Plans for Addressing Problems	Plans for address specific measures to address PC and their sub areas 		TA sessions are very helpful according to students. Initial setup for virtual desktop needs to be done as early as possible. On-going technical support is essential.			
Overall Trend over Periods	Ascertain if there were improvements over previous semesters 		The class average increased comparing to last year.			
Were Expectations Met?	Class Average ≥ 70 and $\geq 70\%$ of Students Performed at or Above Expected Average. 		YES			

**Grade Sheet Showing
Student and Class Performance in Outcomes
The computed semester average in each outcome
as stated in the Assessment report are
highlighted in boldface**

**Grade Sheet Showing Student and Class
Performance in Course Outcomes
MCEG 1102-P04 Mechanical Engineering and Drawing I
Fall 2021 Semester**

	Outcome 2	
	Project	Percentage
		100
	86.5	86.5
	97.5	97.5
	96.0	96.0
	85.0	85.0
	37.5	37.5
	98.5	98.5
	91.0	91.0
	96.0	96.0
	47.5	47.5
	94.0	94.0
	93.5	93.5
	93.0	93.0
	98.0	98.0
	87.5	87.5
	98.0	98.0
	93.5	93.5
	92.5	92.5
	87.5	87.5
	90.0	90.0
	92.5	92.5
	80.0	80.0
AVERAGE	87.4	87.4
SDEV	15.4	15.4
EXPECTED AVERAGE		70
% STUDENTS ABOVE EXPECTED AVERAGE		90.5

**OUTCOME SPECIFIC ASSIGNMENTS
USED TO ASSESS OUTCOMES**

(Provide at least two assignments used to specifically measure each outcome and justify the suitability of the assignments for the outcome being measured)

ASSIGNMENTS FOR OUTCOME 2

An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

**MECHANICAL ENGINEERING DEPARTMENT
OUTCOMES SPECIFIC ASSIGNMENT COVER SHEET
MCEG 1102 Introduction to Mechanical Engineering
Drawing and Design Lab I
FALL 2021
Instructor: Dr. Chang Duan**

Title of Assignment

Project 1

Outcome Measured Using this Assignment

Outcome 2

An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factor

Check the engineering design characteristics related to this assignment

✓	Involves identifying the specific needs to be met by defining/understanding the problem and developing plans for the project to satisfy the need
✓	Involves conducting a review of the literature and performing preliminary design by generating alternative ideas/solutions and applying creativity
✓	Involves performing detailed engineering design leading to specification and fabrication/selection of components for system being designed.
	Involves consideration of one or more of the following (Please check those involved in this assignment.)
	☐ Public health
	✓ Safety and welfare
	☐ Global factors
	☐ Cultural factors
	☐ Social factors
	☐ Environmental factors
	☐ Economic factors
	Involves fabrication and testing of model or prototype

Brief justification of the suitability of assignment for the outcome

This project is designed to test students' abilities in define the problem and plan the design process.
It is also designed to test students' abilities in detailed design using modern 3D modeling software.

MCEG1102-P04: Mechanical Engineering Drawing I

Fall 2021

Project 1

Assigned on 10/25/2021

This project includes 2 parts. Part I is to design a solid model as shown in page 2. Part II is to create a drafting as shown in page 3. **Unit is inch.**

Due Date:

Part I is due on **11/01/2021**.

Part II is due on **11/08/2021**.

Requirements:

Part I:

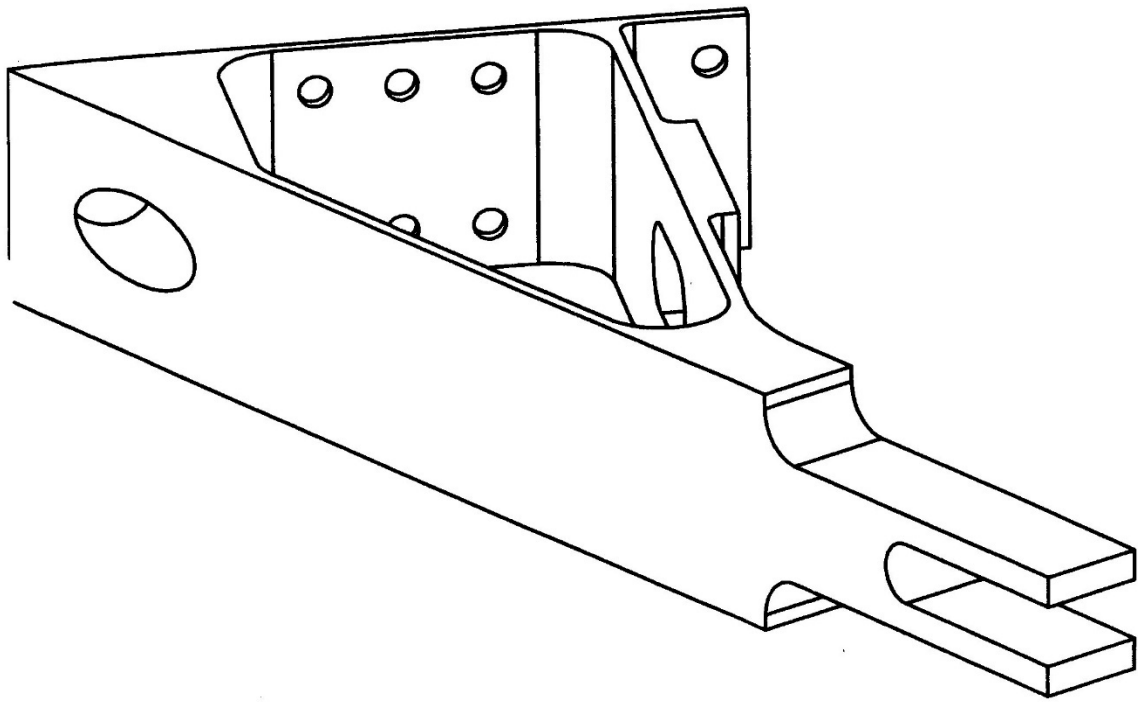
- Save your NX file. You will use it to finish your project Part II.

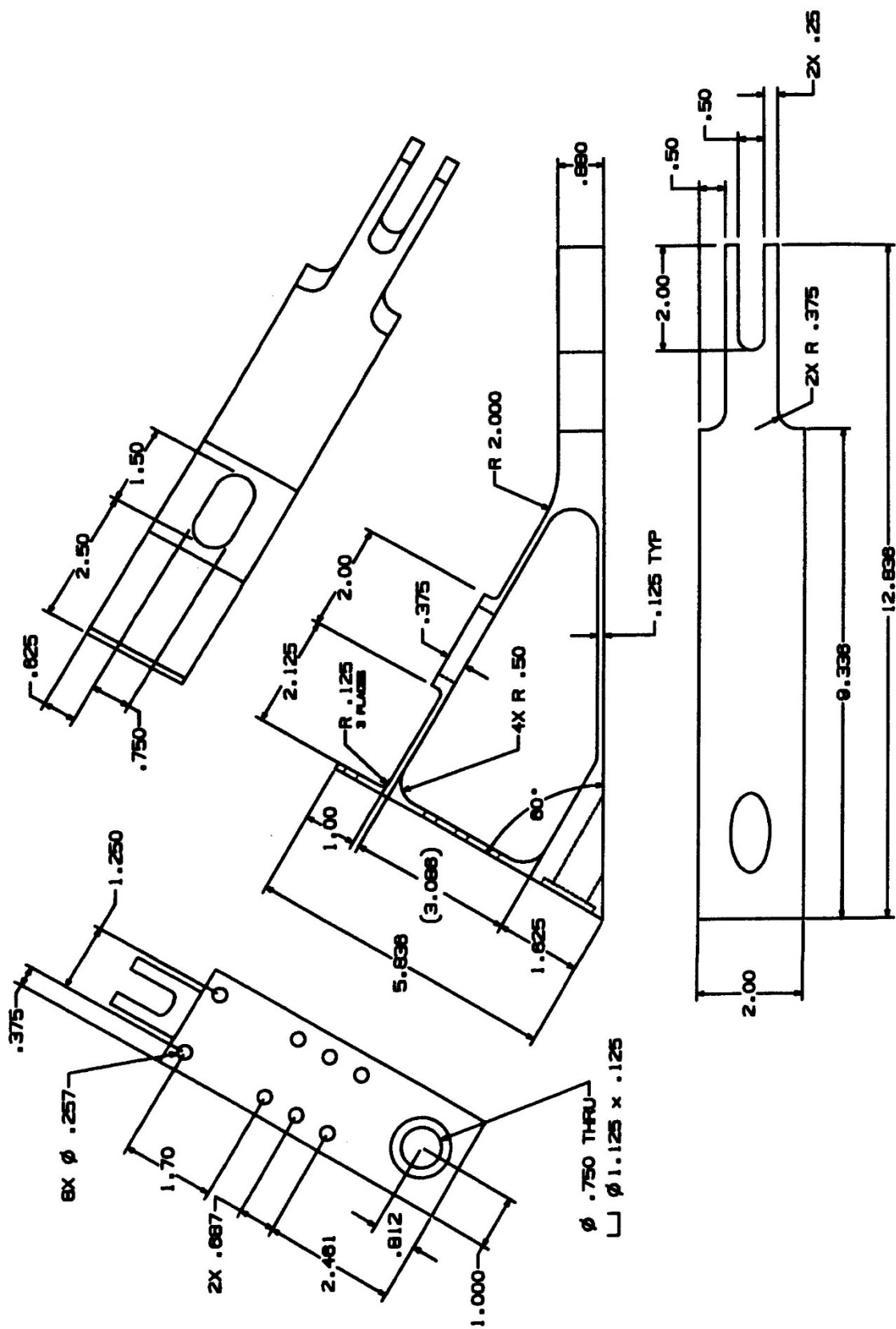
Part II:

- You need to list your name and student ID on the right bottom corner of your drafting.

Submission:

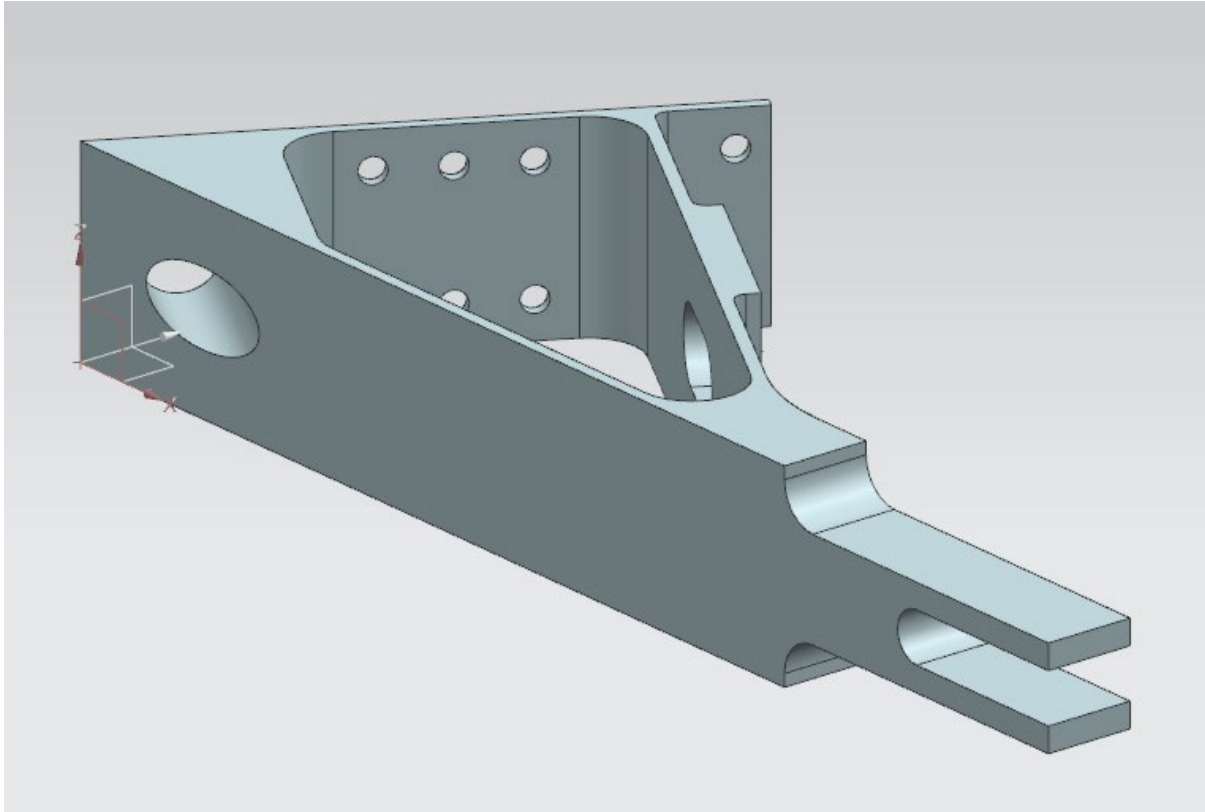
- You need to submit electronic copies of Part I and Part II on Canvas.
- You need to submit electronic copies on Taskstream (Taskstream can be accessed on Ecourses).
 - Submit your Part II file to **“Outcome 2”**.
 - **Taskstream submission is in addition to Ecourses submission. You need to submit electronic copy of Part II twice to both Ecourses and Taskstream.**
- The file names should be **Project1_model_lastname.prt** for Part I and **Project1_drafting_lastname.prt** for Part II.





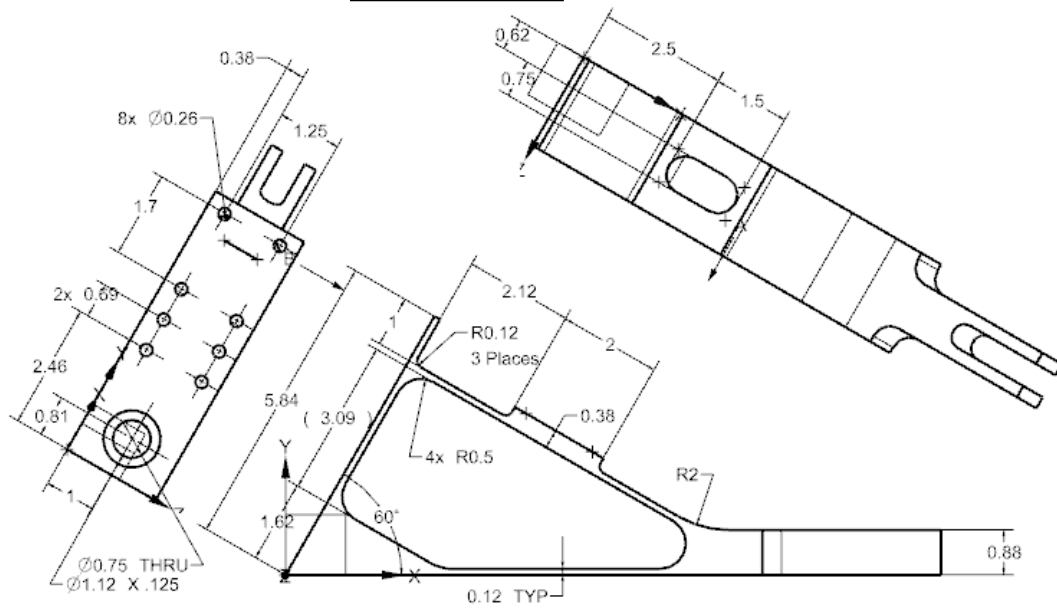
Part1.

100



Part2.

95



Decimal off

