

**The University of Texas at El Paso
College of Engineering
Department of Aerospace and Mechanical Engineering**

Course number	Title of Course	Semester/year
26729 (MECH4336)	Principles of Engr Design	Spring 2025
26732 (MECH4366)	Senior Design Project	

Time: Tuesday & Thursday 4:30 – 5:50 PM

Location: College of Business Admin 302

Instructor: Dr. Jaeyoung Cho (he, his, him)
Assistant Professor
Department of Aerospace and Mechanical Engineering
College of Engineering
The University of Texas at El Paso
jcho4@utep.edu

Office: Engineering Building, Room A-105

Office hours: With appointment via email, Tuesday & Thursday & Friday 10:30 – 11:30 AM

Laboratory: Engineering Building, Room E-101

Course Description: This course is designed for UTEP Sun City Summit Rocket Team students to continue their efforts while earning academic credit. Enrollment is restricted to students approved by Dr. Cho (faculty advisor and course instructor) and Pedro M. Ferreira Da Silva (project manager). Registered students are expected to actively contribute to their assigned team activities and, in addition, develop their own rockets to gain hands-on experience across the entire solid rocket system.

Method of Evaluation: The final grade will be evaluated as below.

<i>Grading Components</i>		<i>Grading Scale</i>	
Progress report	100pts	A	541 – 600 pts
Final report	200pts	B	481 – 540 pts
Team evaluation	100pts	C	421 – 480 pts
Launch performance	100pts	D	361 – 420 pts
Attendance	100pts	F	0 – 360 pts
Total	600pts		

Communication: The instructor will communicate with students via Blackboard and MS Teams

Course Content

Week	Day	Date	Location	Topic	Assignment	Attendance
1	Tue	21-Jan	BUSN 302	Introduction & facility tour		R
1	Thu	23-Jan	TBA	All-hands meeting		R
2	Tue	28-Jan	BUSN 302	Rocket basics		R
2	Thu	30-Jan	BUSN 302	Rocket basics		R
3	Tue	4-Feb	BUSN 302	Rocket basics		R
3	Thu	6-Feb	BUSN 302	OpenRocket simulation		R
4	Tue	11-Feb	BUSN 302	OpenRocket simulation		R
4	Thu	13-Feb	BUSN 302	OpenRocket simulation		R
5	Tue	18-Feb	BUSN 302	OpenRocket simulation		R
5	Thu	20-Feb	BUSN 302	Office hours		O
6	Tue	25-Feb	BUSN 302	Presentation & feedback	Design presentation	M
6	Thu	27-Feb	TBA	All-hands meeting	Design due	R
7	Tue	4-Mar	ENGR E101	Manufacturing guidance		M
7	Thu	6-Mar	ENGR E101	Office hours		O
8	Tue	11-Mar		Spring break		
8	Thu	13-Mar		Spring break		
9	Tue	18-Mar	ENGR E101	Office hours		O
9	Thu	20-Mar	ENGR E101	Office hours		O
10	Tue	25-Mar	ENGR E101	Office hours	Prog. report due	O
10	Thu	27-Mar	TBA	All-hands meeting		R
11	Tue	1-Apr	ENGR E101	Office hours		O
11	Thu	3-Apr	BUSN 302	Recovery assembly training		M
12	Tue	8-Apr	BUSN 302	Demonstration & feedback	Manufacturing due	M
12	Thu	10-Apr	BUSN 302	Motor assembly training		M
12	Sat	12-Apr	TBA	Launch	Launch	M
12	Sun	13-Apr	TBA	Launch	Launch	M
13	Tue	15-Apr	ENGR A105	Office hours		O
13	Thu	17-Apr	BUSN 302	Presentation & feedback	Result presentation	M
14	Tue	22-Apr	ENGR A105	Office hours		O
14	Thu	24-Apr	TBA	All-hands meeting		R
15	Tue	29-Apr	ENGR A105	Office hours		O
15	Thu	1-May	ENGR A105	Office hours	Final report due	O

* R: Recommended, M: Mandatory, and O: Optional

Attendance: Attendance is mandatory for specific lectures to ensure project safety (see the table above). On other days, attendance is either recommended or optional; however, participation in all-hands meetings may be considered in the team evaluation. Additionally, students must reserve the weekend of Week 12 for the scheduled rocket launch.

Accommodations Policy: The University is committed to providing reasonable accommodations to students with documented disabilities. Students who become pregnant may also request reasonable accommodations in accordance with state and federal laws and regulations and University policy. Accommodations that constitute undue hardship are not reasonable. To make a request, please register with the UTEP Center for Accommodations and Support Services (CASS). Contact CASS at 915-747-5148, email them at cass@utep.edu, or apply for accommodations online via the CASS portal.

Scholastic Integrity: Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline.

Guidance on Artificial Intelligence: Use of AI technologies or automated tools, particularly generative AI such as ChatGPT or DALL-E, is not allowed for assignments in this class. Each student is expected to use critical and creative thinking skills to complete tasks and not rely on computer-generated ideas. Any direct use of AI-generated materials submitted as your own work will be treated as plagiarism and reported to the Office of Student Conduct and Conflict Resolution (OSCCR).