



Believe in ME



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

I AM
#MajoringMechanical



WHERE OPPORTUNITY
MEETS EXCELLENCE



ME is COMMUNITY



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING





STUDENT ORGANIZATIONS	PRESIDENT	EMAIL	INSTAGRAM
American Society of Mechanical Engineers	Ryan McCarthy	asme@utep.edu	@asmeutep
Mexican American Engineers & Scientists/ Society of Hispanics	Hugo de la Garza	hdelagarz@miners.utep.edu	@utepmaesshpe
SAE International	Rodolpho Moreno	sae@utep.edu	@saeutep
SAE Aero Design	Raul Casteneda	sae@utep.edu	@utepsae.aero
SAE Baja	Lino Porras	sae@utep.edu	@baja_sae.utep
SAE Formula	Nayeli Ontiveros	sae@utep.edu	@lombardi.racing
SAE Shell-Eco Marathon	Vanessa Garcia	sae@utep.edu	
Women in Aeronautics & Astronautics	Gala Solis	gcsolis@miners.utep.edu	@utepgaia
Society of Women Engineers	Flor Urbina	swe@utep.edu	@swe_utep
Student Advisory Board	Mayra Rodarte	mgridarte@utep.edu	
Pi Tau Sigma	Stephanie Guerra Arias	sguerra2@miners.utep.edu	@pitausigma_utep

<https://www.utep.edu/engineering/mechanical/student-resources/involvement.html>



Events

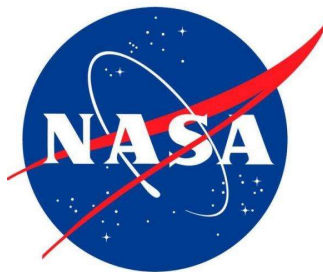


THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

ME is OPPORTUNITY





Southwest Emerging Technology Symposium & Regional Small Business Summit (SETS)



Hosted every Spring, the goal of this symposium is to provide a formal setting for interactions among academic, government, industrial professionals, and regional small businesses.



Paulina Ibañez is #MajoringMechanical

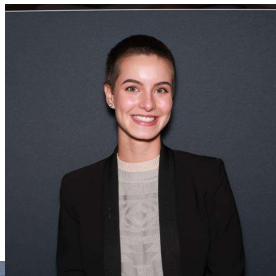
Hometown: Chihuahua, Chihuahua, Mexico

High School: Franklin High School, 2016

Internship: Paulina interned at Microsoft in the summer of 2019. She worked at Xbox to create a robot that simulated continuous gameplay on controllers to test their durability.

Current research: Worked under Dr. Yirong Lin to 3D print different ceramics and test their capabilities on instruments that have sensors in water and in space.

Future plans: Paulina graduated with a Bachelor's in Mechanical Engineering in May 2020 and accepted a job at Xbox to continue her robotics testing. She plans to move to Seattle, Washington this August.





Perla Perez is #MajoringMechanical

Hometown: El Paso, Texas

High School: Coronado High School, 2009

Internship: Perla has interned at the NASA Johnson Space Center in Houston, TX. She worked in the propulsion division and tested on a cubesat that is currently orbiting in space.

Current research: Worked in the NASA MIRD Center for Space Exploration and Technology Research. She helped design the main structure, the deploy pod, and the small 3D printer inside a small satellite that will be launched into space (pictured).

Future plans: Perla graduated with a Master's in Mechanical Engineering Fall 2019. She was offered a position at Lockheed Martin and began working for them in January 2020.



ME is POSSIBILITY



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Bachelor of Science in
Mechanical
Engineering

Masters of Science in
Mechanical
Engineering

PhD in Mechanical
Engineering



Undergraduate Student
Marshal of Students

Aibhlin A. Esparza

Bachelor of Science in
Mechanical Engineering

<https://www.utep.edu/engineering/mechanical/>

Certificate in 3D
Engineering & Additive
Manufacturing

Certificate in
Aerospace & Defense
Engineering





THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

ME is KNOWLEDGE

Energy Engineering

Aerospace Engineering

Advanced Manufacturing

Unmanned Aircraft Systems

8 Key Labs &
Research Centers

Throughout UTEP &
City of El Paso



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Energy Engineering

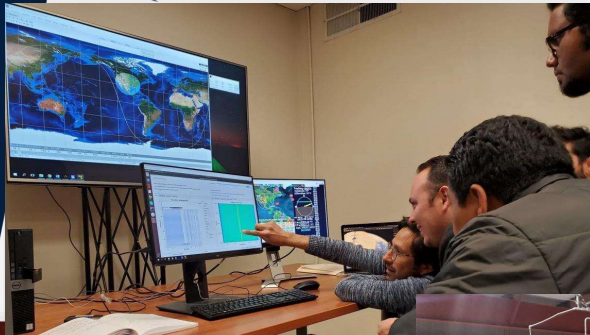




Aerospace Engineering



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING



Fall
2020

Bachelor's Aerospace & Aeronautics



Year	Semester I			Hrs	Semester II			Hrs
Freshman	MECH	1305	Graphic and Design Fundamentals +	3	MECH	1321	Mechanics I - Statics + (MATH 1411+ PHYS 2420+)	3
	RWS	1301	Rhetoric & Composition 1 +	3	HIST	1301	History of US to 1865 +	3
	MATH	1411	Calculus I +	4	RWS	1302	Rhetoric & Composition 2 + (RWS 1301+)	3
	PHYS	2420	Physics I (MATH 1411 is CO requisite)	4	MATH	1312	Calculus II + (MATH 1411+)	3
	UNIV	1301 2350	Introduction to Engineering can be taught in a specific section. +	3	CHEM	1305 1105	Chemistry I +	4
				17				16
Sophomore	MECH	2322	Mechanics of Materials + (MECH 1321+)	3	MECH	2340	Mechanics II - Dynamics + (MECH 1321+)	3
	MATH	2313	Calculus III + (MATH 1312+)	3	MECH	2311	Introduction to Thermo-Fluid Science + (MATH 1312+)	3
	MECH	2331	Mat'ls and Manufacturing Processes + (CHEM 1305+)	3	MECH	2103	Engineering Computations	1
			Design and Manufacturing Studio + (MECH 1305+ (see NOTE 8)	1	MECH	2342	Electro Mechanical Systems + (MATH 1312+)	3
	HIST	1302	History of US since 1865	3	CE	2326	Engineering Economics +	3
			Science Elective + (see NOTE 1)	4	MATH	2326	Differential Equations	3
			17				16	
Year	Semester I			Hrs	Semester II			Hrs
Freshman	MECH	1305	Graphic and Design Fundamentals +	3	MECH	1321	Mechanics I - Statics + (MATH 1411+ PHYS 2420+)	3
	RWS	1301	Rhetoric & Composition 1 +	3	HIST	1301	History of US to 1865 +	3
	MATH	1411	Calculus I +	4	RWS	1302	Rhetoric & Composition 2 + (RWS 1301+)	3
	PHYS	2420	Physics I (MATH 1411 is CO requisite)	4	MATH	1312	Calculus II + (MATH 1411+)	3
	UNIV	1301	Engineering can be taught in a specific section. +	3	CHEM	1305 1105	Chemistry I +	4
			17				16	
Sophomore	MECH	2322	Mechanics of Materials + (MECH 1321+)	3	MECH	2340	Mechanics II - Dynamics + (MECH 1321+)	3
	MATH	2313	Calculus III + (MATH 1312+)	3	MECH	2311	Introduction to Thermo-Fluid Science + (MATH 1312+)	3
	AERO	2331	Aerospace materials + (CHEM 1305+)	3	MECH	2103	Engineering Computations	1
	AERO	2131	Aerospace materials Lab	1	MECH	2342	Electro Mechanical Systems + (MATH 1312+)	3
	HIST	1302	History of US since 1865	3	CE	2326	Engineering Economics +	3
			Science Elective + (see NOTE 1)	4	MATH	2326	Differential Equations	3
			17				16	



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Bachelor's Mechanical Engineering

First two years are nearly identical.

Bachelor's Aerospace & Aeronautics



Junior		Laboratory Experience (see NOTE 2)	1		Laboratory Experience (see NOTE 2)	1
	MECH	3352 Engineering Analysis II (MECH 2351+)	3	COMM	1302 Business and Professional Communication +	3
	MECH	3312 Thermodynamics (MECH 2311+)	3	MECH	3345 System Dynamics (MECH 2340+, MECH 2342+)	3
	MECH	3314 Fluid Mechanics (MECH 2311+)	3	MECH	3334 Mechanical Design (MECH 2331+, MECH 2322+)	3
	POLS	2310 Introduction to Politics +	3		Humanities Electives +	3
	MATH	Math Elective (see NOTE 3)	3		Science/Math Elective + (see NOTE 4)	3
			16			16
Senior		Design Elective Solid Mechanics Area (see NOTE 5)	3	MECH	4366 Senior Design (CE 2326 +, see NOTE 7)	3
		Design Elective Thermal Fluid Area (see NOTE 5)	3		Design Elective Any Area (see note 5)	3
	MECH	4315 Heat Transfer (MECH 3314, MECH 3312)	3		Design Elective Any Area (see note 5)	3
		Computational Elective (see note 6)	3	POLS	2311 American Government and Politics	3
		Design Elective Electro-Mechanical (see NOTE 5)	3		Visual and Performing Art Elective	3
			15			15
Total 128 Credit hrs						
Junior		Laboratory Experience (see NOTE 2)	1		Laboratory Experience (see NOTE 2)	1
	MECH	3352 Engineering Analysis (MECH 2351+)	3	COMM	1302 Business and Professional Communication +	3
	AERO	3312 Aerodynamics I	3	AERO	3343 Aerospace Dynamics and Controls	3
	AERO	3323 Aerospace Structures I	3		Aero concentration I (NOTE 5)	3
	POLS	2310 Introduction to Politics +	3		Humanities Electives +	3
	MATH	Math Elective (see NOTE 3)	3		Science/Math Elective + (see NOTE 4)	3
			16			16
Senior		Aero concentration II (NOTE 5)	3	AERO	4366 Aerospace Senior Design	3
	AERO	4322 Propulsion	3		Aero Free Elective (NOTE 6)	3
		Aero concentration III (NOTE 5)	3		Aero Free Elective (NOTE 6)	3
	MECH	4326 Finite Element Analysis	3	POLS	2311 American Government and Politics	3
	AERO	4323 Aircraft Design	3		Visual and Performing Art Elective	3
			15			15
Total 128 Credit hrs						



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Bachelor's Mechanical Engineering

Upper division MECH courses are replaced with AERO courses.

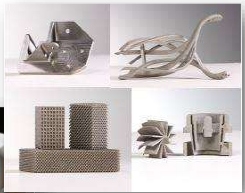
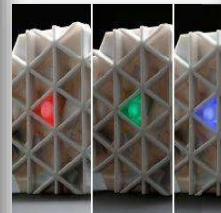
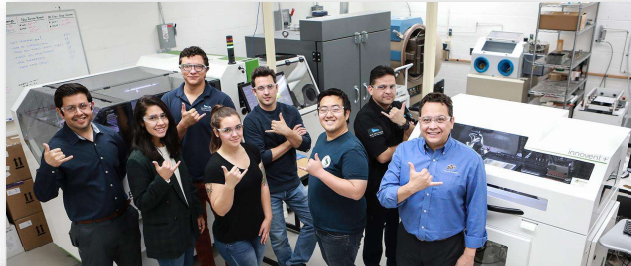
Bachelor's Aerospace & Aeronautics



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING



Advanced Manufacturing

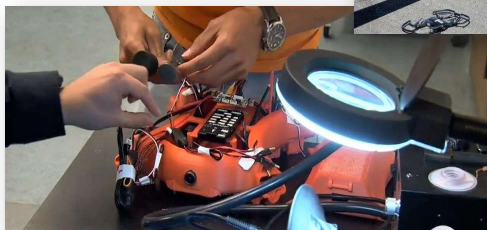


*The "Texas Breather":
TTUHSC El Paso and
UTEP Develop a
Low-Cost, 3D-Printed
Ventilator for Hospitals*

UTEP COLLEGE OF ENGINEERING



Unmanned Aerial Systems (Drones)





THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Drone: Simulation -> Reality



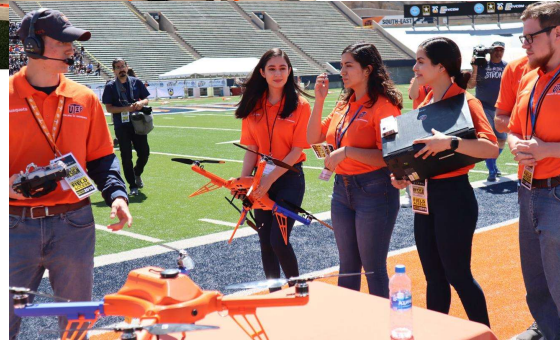
MINING THE SKIES

Department of Mechanical Engineering





Inaugural HBCU/MI Design Competition



LDME to ME Major

Register for appropriate Pre-Cal course

Received Calculus credit

OR

Math Placement Exam



Become Calculus I Ready

Declare major at EDGE Center

OR

Declare major at ME Department



Congratulations! You are a Mechanical Engineering Student!





Year	Semester I			Hrs	Semester II			Hrs
Freshman	MECH	1305	Graphic and Design Fundamentals +	3	MECH	1321	Mechanics I – Statics + (MATH 1411+ PHYS 2420+)	3
	RWS	1301	Rhetoric & Composition I +	3	HIST	1301	History of US to 1865 +	3
	MATH	1411	Calculus I +	4	RWS	1302	Rhetoric & Composition 2 + (RWS 1301+)	3
	PHYS	2420	Physics I (MATH 1411 is CO requisite)	4	MATH	1312	Calculus II + (MATH 1411+)	3
	UNIV	1301 2350	Introduction to Engineering can be taught in a specific section. +	3	CHEM	1305 1105	Chemistry I +	4
				17				16
Sophomore	MECH	2322	Mechanics of Materials + (MECH 1321+)	3	MECH	2340	Mechanics II – Dynamics + (MECH 1321+)	3
	MATH	2313	Calculus III + (MATH 1312+)	3	MECH	2311	Introduction to Thermo-Fluid Science + (MATH 1312+)	3
	MECH	2331	Mat’ls and Manufacturing Processes + (CHEM 1305+)	3	MECH	2103	Engineering Computations	1
			Design and Manufacturing Studio + (MECH 1305+) (see NOTE 8)	1	MECH	2342	Electro Mechanical Systems + (MATH 1312+)	3
	HIST	1302	History of US since 1865	3	CE	2326	Engineering Economics +	3
			Science Elective + (see NOTE 1)	4	MATH	2326	Differential Equations	3
				17				16

<https://www.utep.edu/engineering/mechanical/academic-programs/undergraduate-program/undergraduate-program.html>



Year	Semester I			Hrs	Semester II			Hrs
Junior			Laboratory Experience (see NOTE 2)	1			Laboratory Experience (see NOTE 2)	1
	MECH	3352	Engineering Analysis II (MECH 2351+)	3	COMM	1302	Business and Professional Communication +	3
	MECH	3312	Thermodynamics (MECH 2311+)	3	MECH	3345	System Dynamics (MECH 2340+, MECH 2342+)	3
	MECH	3314	Fluid Mechanics (MECH 2311+)	3	MECH	3334	Mechanical Design (MECH 2331+, MECH 2322+)	3
	POLS	2310	Introduction to Politics +	3			Humanities Electives +	3
	MATH		Math Elective (see NOTE 3)	3			Science/Math Elective + (see NOTE 4)	3
				16				16
Senior			Design Elective Solid Mechanics Area (see NOTE 5)	3	MECH	4366	Senior Design (CE 2326 +, see NOTE 7)	3
			Design Elective Thermal Fluid Area (see NOTE 5)	3			Design Elective Any Area (see note 5)	3
	MECH	4315	Heat Transfer (MECH 3314, MECH 3312)	3			Design Elective Any Area (see note 5)	3
			Computational Elective (see note 6)	3	POLS	2311	American Government and Politics	3
			Design Elective Electro-Mechanical (see NOTE 5)	3			Visual and Performing Art Elective	3
			15				15	
Total 128 Credit hrs								

<https://www.utep.edu/engineering/mechanical/academic-programs/undergraduate-program/undergraduate-program.html>





EPCC to UTEP Transfer Guide

Additional Courses Required for the Engineering Degree in Mechanical Engineering at EPCC/UTEP				
ENGR	1201	Introduction to Engineering	ENGR	12TR ⁶
ENGR	1204	Engineering Graphics	BE	1205 ⁶
ENGR	2301	Mechanics I: Statics	BE	2434 ⁷
ENGR	2302	Mechanics II: Dynamics	BE	2338 ⁸
ENGR	2305	Electromechanical Systems	BE	2377 ⁹
ENGR	2308	Economics for Engineers and Scientist	CE	2326 ¹⁰
ENGR	2332	Mechanics of Materials	BE	2303 ¹¹
ENGR	2334	Introduction to Thermal Fluids	BE	2375 ¹²

⁶BE 1205 will be substituted for MECH 1305 if (ENGR 1401 or ENGR 1201) and ENGR 1204 are both taken at EPCC as listed in the BSME degree plan at UTEP.
⁷BE 2434 counts as MECH 1321 as listed in the BSME degree plan at UTEP.
⁸BE 2338 counts as MECH 2340 as listed in the BSME degree plan at UTEP.
⁹BE 2377 counts as MECH 2342 as listed in the BSME degree plan at UTEP.
¹⁰CE 2326 is required for completion of the BSME Degree.
¹¹BE 2303 counts as MECH 2322 as listed in the BSME degree plan at UTEP.
¹²BE 2375 counts as MECH 2311 as listed in the BSME degree plan at UTEP.

Iliana Solis
Program Advisor
itrevino2@utep.edu
(915) 274-1463
Engineering Bldg., Rm A-119



Advising Material



UTEP > COLLEGE OF ENGINEERING > MECHANICAL ENGINEERING > STUDENT-RESOURCES

Forms

Engineering Academic Forms

- Academic Advising Form
- Add/Drop Form
- Application for Bachelor's Degree
- Blue Degree Plan
- Change of Major Form
- Course Add Form (After Late Registration)
- Course Drop Form (After Census)
- Course Substitution
- Course Repeat Petition for GPA Recalculation
- Course Waiver Form
- Mechanical Engineering Department Credit for Internship
- Reinstatement College of Engineering
- Student Improvement Survey
- Student Item Checklist
- Transfer Course Evaluation
- Tutoring Feedback
- UTEP Consortium Agreement
- Waiver Form

<https://www.utep.edu/engineering/mechanical/student-resources/forms.html>

	Mechanical Engineering Advising Advising slides and quiz. Please note, you need to receive a perfect score to have the Mechanical Engineering Advising hold to be removed. Need help? Send email to MEAdvising@utep.edu
	Registration & Forms Info Departmental Forms, and more
	Degree Plan & Policies Degree Plan, Grade Recalculation Policy, and General Policies.
	Tutoring & Resources Tutoring Calendar, Online Tutoring, How to Find ACES, and More!
	Waiver This directory contains the on-line link to the form. It also has a link to an instructional video. There is also a word file that explains all the different type of waivers. At a minimum READ the types of Waivers. If you request the wrong one and it is approved it will NOT solve your problem. You can EMAIL MEAdvising@utep.edu if you are not sure what to request.
	Slides from "Going Online" Q&A Forum ▲
	Senior Classes and Special Topics Courses ▲





RESUMING CAMPUS OPERATIONS

INFORMATION FOR • TESTING • TRAINING • ANNOUNCEMENTS • GENERAL RESOURCES • CONTACT

MY UTEP RESOURCES FOR • QUICK LINKS

Vendors

GENERAL RESOURCES

- About the Recovery Task Force
- UTEP Coronavirus Proactive Testing Program
- Recovery FAQs
- UTEP Recovery Level
- Submit Your Questions
- Additional Resources

COVID-19 INFORMATION

UTEP RECOVERY LEVEL

DOWNLOAD RECOVERY MATRIX PDF

UTEP CORONAVIRUS PROACTIVE TESTING PROGRAM

CONNECT WITH US

The University of Texas at El Paso
Environmental Health and Safety
Department
Carl Hertzog Building, Room 170
500 W University Avenue
El Paso, Texas 79968
E: RecoveryTaskForce@utep.edu

Restricted Campus

CURRENT RECOVERY LEVEL: Limited Campus Operations

Download Recovery Matrix PDF

Transmission Characteristics: Significant, Controlled Transmission

Transmission Characteristics and Indicators (Based on CDC Guidelines): CDC Phase 1: Downward trajectory (o documented cases over a 14-day period)

Operations:

- Essential personnel identified by name
- Remote work required when possible
- Small work groups limited to no more than 10 individuals

Distancing for enclosed offices, labs, studios: 6 feet separation

Distancing and Density for lecture halls: n/a

Approved Work/Safety Plan: Required for all operations

Training: Required for all returning employees

Face Coverings: Required outside of personal office space

Supplemental Cleaning: Required as set out in Work/Safety Plan

Get Started



PROACTIVE TESTING



TESTING LOCATIONS



SCREENING APP



HEALTH POLICY



TRAINING RESOURCES



INFORMATION FOR STUDENTS AND THEIR FAMILIES

LEARN MORE



INFORMATION FOR FACULTY AND RESEARCHERS

LEARN MORE



INFORMATION FOR MANAGERS AND DEPARTMENT HEADS

LEARN MORE



INFORMATION FOR STAFF

LEARN MORE



VENDOR INFORMATION

LEARN MORE



FREQUENTLY ASKED QUESTIONS

LEARN MORE



RESOURCES

LEARN MORE

<https://www.utep.edu/resuming-campus-operations/>



First year or entering student information

Why am I Lower Division Mechanical Engineering (LDME) and not Mechanical Engineering (MECH)?

What is the tuition cost for Mechanical Engineering?

Math Placement

I am not in Calculus I yet, but want to start taking Mechanical Engineering classes.

Degree Plans and Graduation

I am trying to register for a class, but I have a hold. What do I do?

How do I get involved with student organizations?

Can I get a job with the Mechanical Engineering Department or in one of the research lab?

<https://www.utep.edu/engineering/mechanical/student-resources/first-year-or-entering-student-information.html>





UTEP Resources

UTEP > ENVIRONMENTAL HEALTH & SAFETY > COVID-19

Frequently Asked Questions

- 🔗 CARES Act Emergency Assistance Grants
- 🔗 Remote Teaching and Learning
- 🔗 Travel
- 🔗 Self-Isolation
- 🔗 Events
- 🔗 Research
- 🔗 International Purchases
- 🔗 Staying Healthy
- 🔗 Campus Facilities
- 🔗 Student, Faculty and Staff Services
- 🔗 Employment and Remote Work
- 🔗 Employee Medical Benefits
- 🔗 Advising, Registration and Enrollment
- 🔗 Testing
- 🔗 Fees, Refunds and Finances
- 🔗 Social Distancing

<https://www.utep.edu/ehs/COVID-19/faq.html>

Items Available for Checkout



LAPTOPS & TABLETS



VIDEO / CAMERAS



AUDIO / SOUND



WI-FI HOTSPOTS



CALCULATORS



HARD DRIVES / CARD READERS



PORTABLE POWER



PROJECTORS



CABLES



TRIPODS



FACULTY
CHECKOUT ITEMS

FACULTY CHECKOUT

<https://www.utep.edu/technologysupport/>



Military Student Success Center (MSSC)

If you are a military affiliated student, please contact the Military Student Success Center directly for any assistance.

mssc@utep.edu

(915) 747-5342

Virtual appointments available!

<https://www.utep.edu/student-affairs/mssc/>





THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Center for Accommodations and Support Services (CASS)

If you have a permanent or temporary disability/impairment, please contact the CASS office for possible accommodations.

CASS
Union East Building
Room 106
cass@utep.edu
(915) 747-5148
<https://www.utep.edu/student-affairs/cass/>



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Counseling and Psychological Services (CAPS)

Provides developmental, remedial, and preventative mental health services to students at no-cost. We recommend to use their resources, if needed. In the case of an emergency, please call 911.

Counseling and Psychological Services
Union East Building
Room 202
caps@utep.edu
(915) 747-5302

***after hours crisis line available**

<https://www.utep.edu/student-affairs/counsel/>



**COUNSELING AND
PSYCHOLOGICAL SERVICES**

Currently offering Support Groups and CAPS to GO sessions



Contact Information



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

Dr. Jack Chessa
Department Chair
jfchessa@utep.edu



Iliana Solis
Program Advisor
itrevino2@utep.edu
(915) 274-1463



Mayra Rodarte
Program Coordinator/Manager
mgrodarte@utep.edu
General Questions
tellME@utep.edu



General Advising Questions
MEadvising@utep.edu



THE UNIVERSITY OF TEXAS AT EL PASO
MECHANICAL ENGINEERING

GO MINERS!



UTEP.EDU/ENGINEERING/MECHANICAL/



UTEP MECHANICAL ENGINEERING



@UTEPMechanicalEngineering



@UTEPmechanical



@UTEPmechanical

