Mechanical Engineering Graduate Programs Info Session

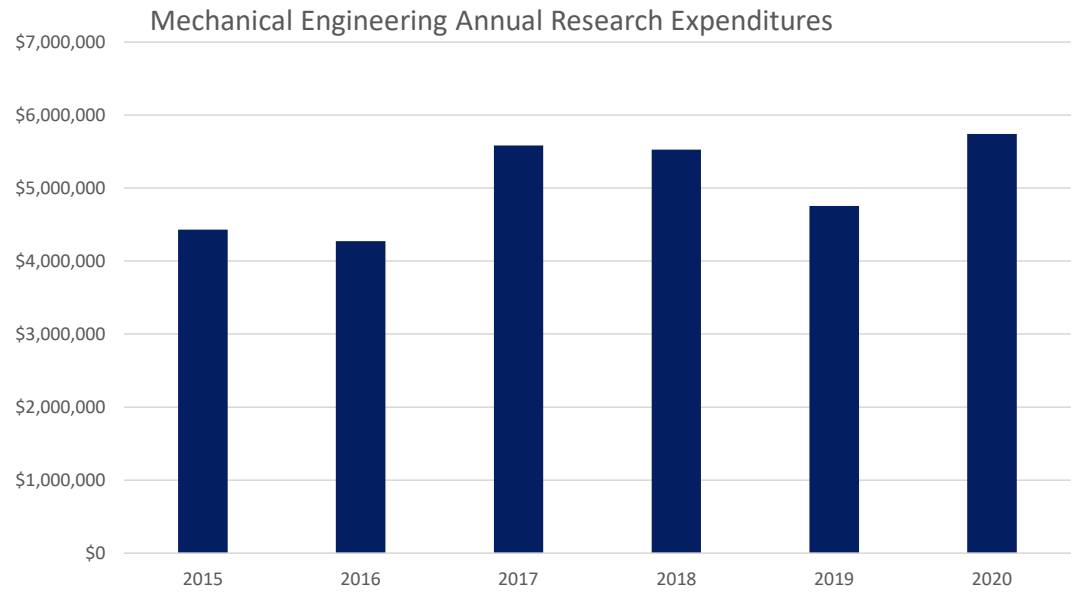
December 2021

Agenda

- Who we are, what we do
  - Departmental research centers
  - Our graduate students
- Our ME graduate students
  - MS program
  - PhD program
- FAQs
  - How to apply
  - Degree plan?
  - How to graduate
  - Fast Track
  - GRE
  - BS to PhD
  - …

Department of Aerospace and Mechanical Engineering

- We are Number 1 in Research Expenditure in College of Engineering, by a lot…
- With 21 T/TT faculty and total of 28 faculty
- Number 2 in UTEP after Biology, but with only 40% of the faculty



https://www.utep.edu/engineering/mechanical/people/faculty.html

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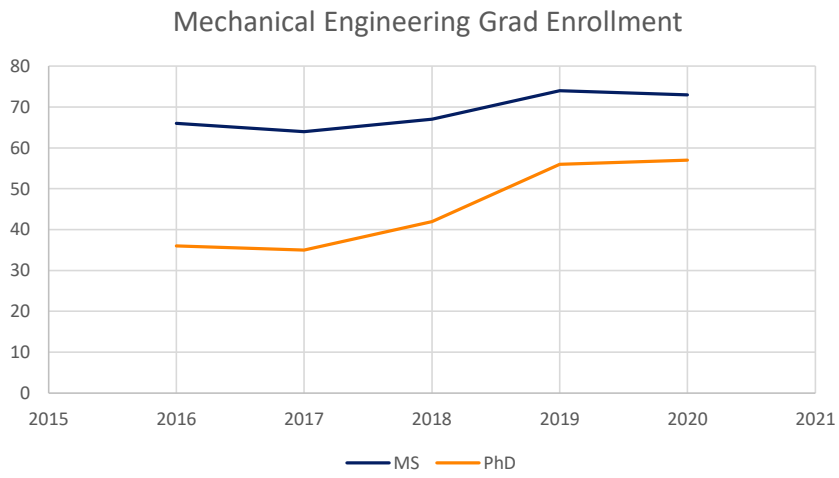
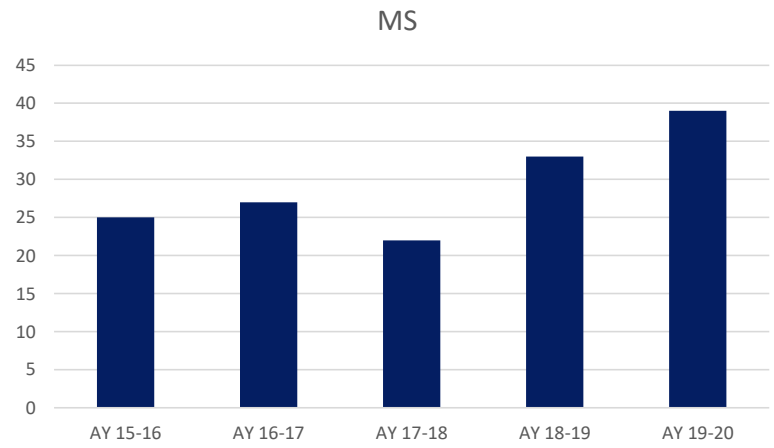
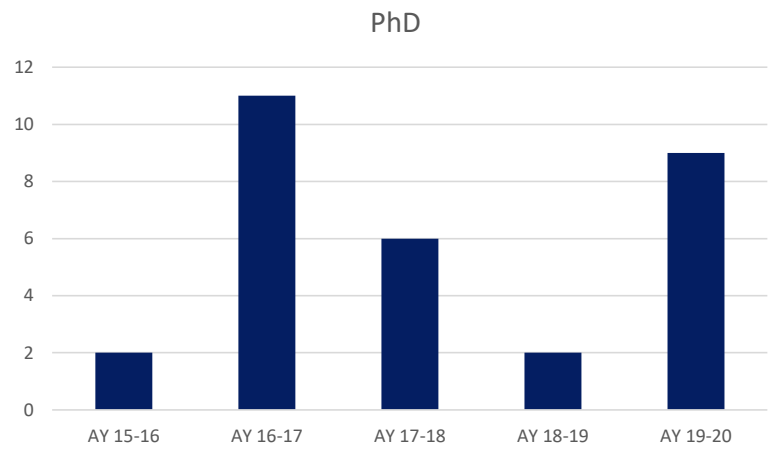
Our programs enrollment



Degrees awarded





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W.M. Keck Center
FOR 3D INNOVATION

>20 Years of Growth and Success

$70M New Building (currently in design)

W.M. Keck Foundation · Sandia National Laboratories · Lockheed Martin · Texas Emerging Technology Fund · Additive Manufacturing · America Makes · CSETR

2000 — 3,000 sq ft — 6,000 sq ft — 2010 — 13,000 sq ft — 30,000 sq ft — 2020 — >100,000 sq ft (shared)

1 machine

W.M. Keck Center
FOR 3D INNOVATION

https://keck.utep.edu/

Keys to Sustained Success

- **Students** – our key focus
- **High expectations** combined with **growth mindset**
- **Strategic partnerships** (government and industry)
- Build **mainstream capacity** and **diversified portfolio**
- **Research excellence** with **broad impacts** – advanced manufacturing, STEM pipeline, education programs, economic and workforce development

Drive for Research Excellence

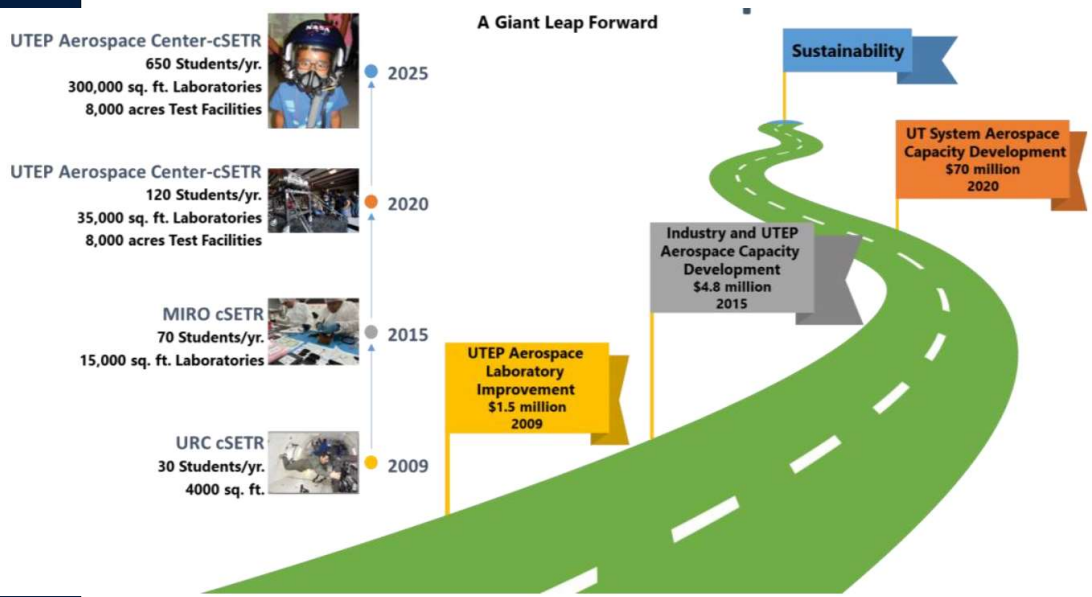
UTEP graduates. Photo: Ivan Pierre Aguirre / UTEP Communications

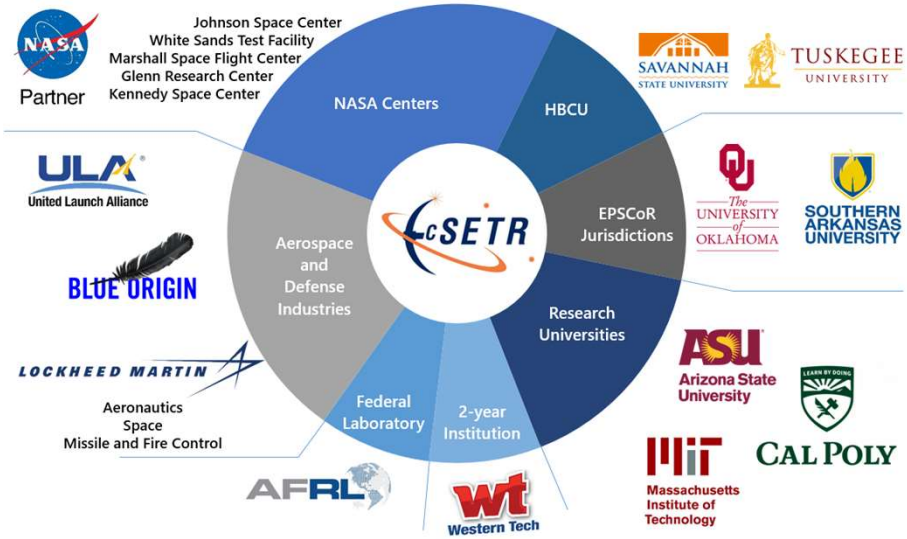
Engage and Develop Students

Compelling Technology Arena

Impact x Intellectual Challenge x Passion

cSETR





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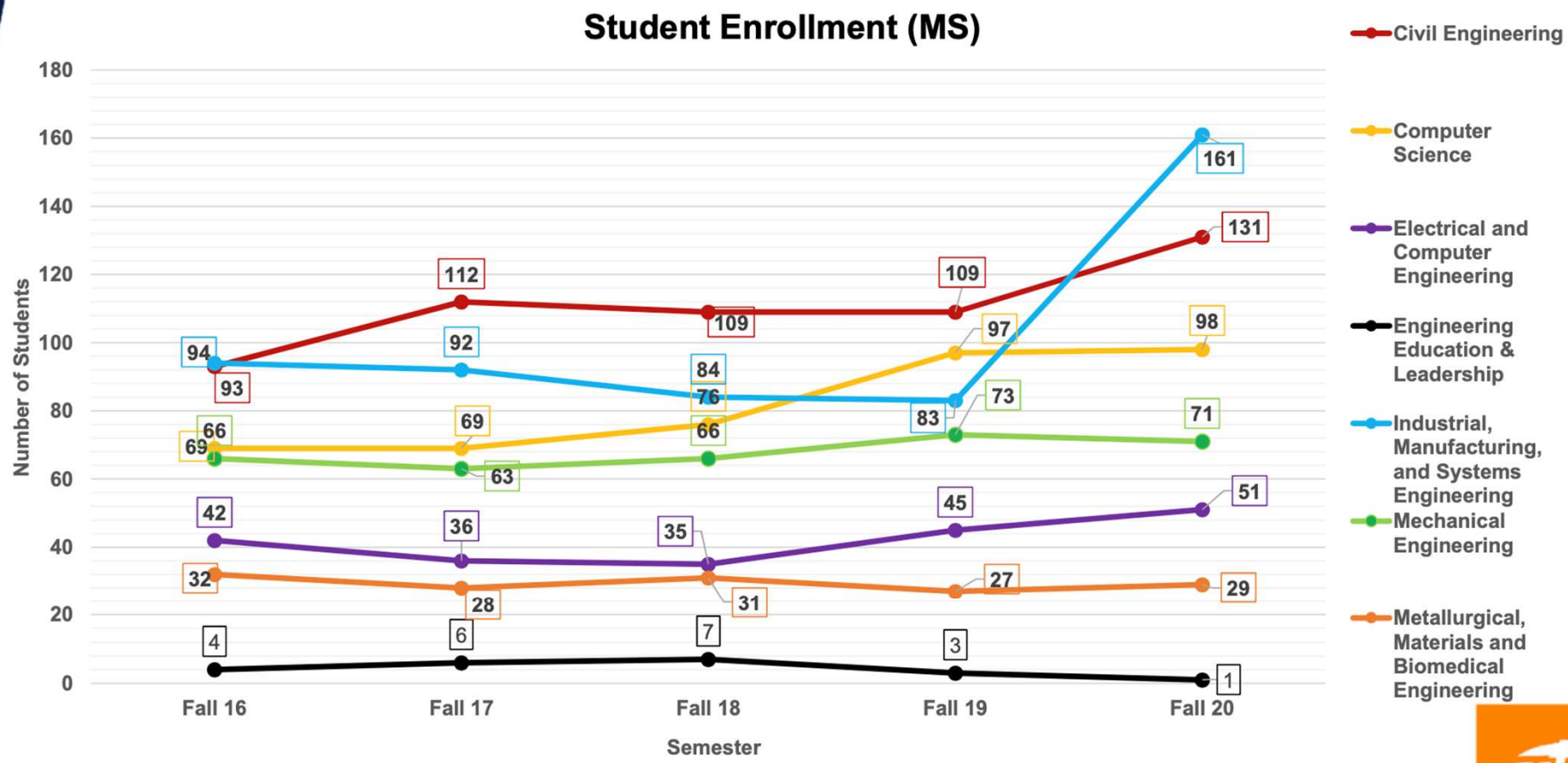
Student Enrollment Master's

FY 2016 through 2020

Avg Enrollment Growth Projected next 3 years

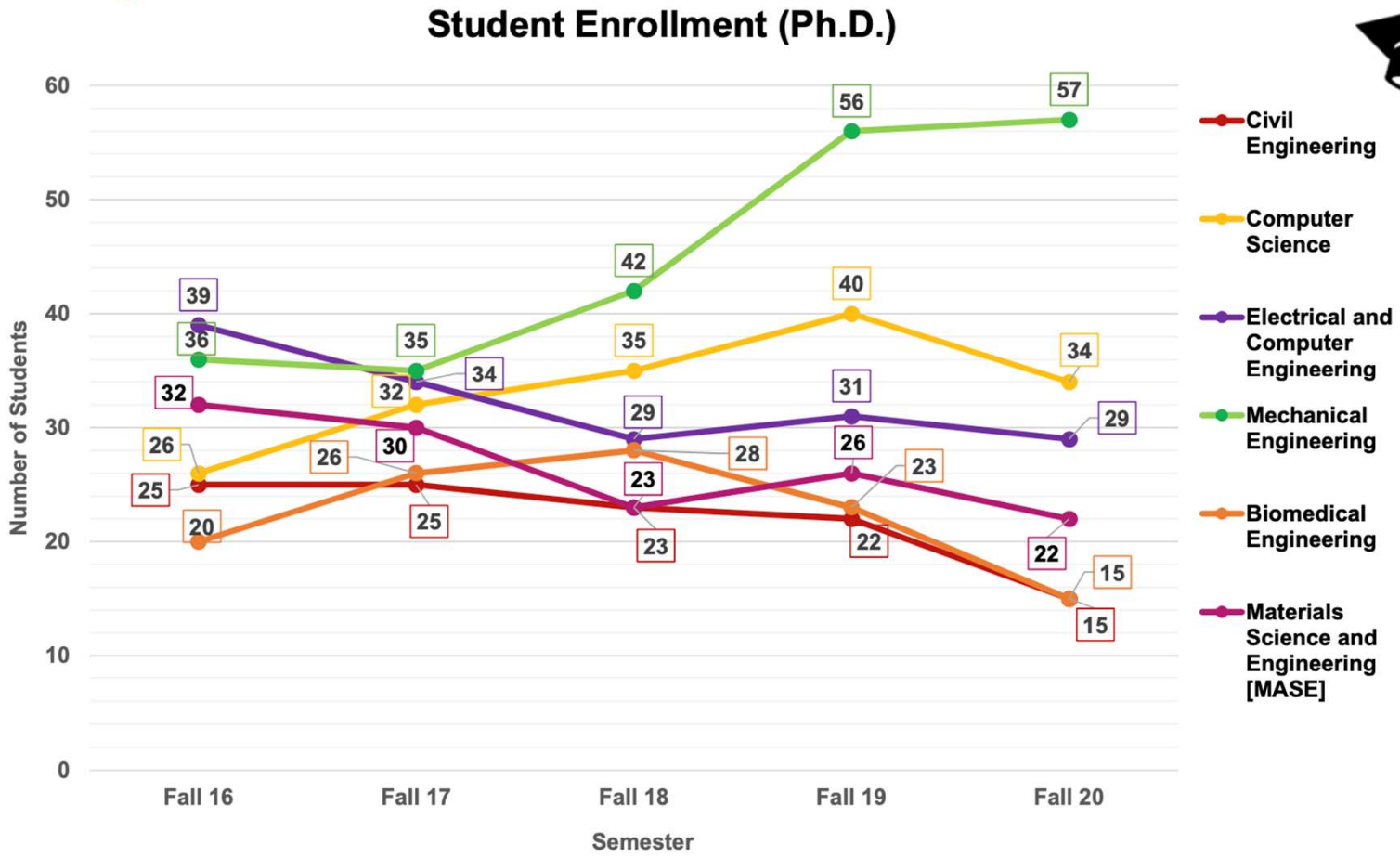


Data Source: Data acquired from the Center for Institutional, Evaluation, Research & Planning (CIERP)

Student Enrollment Ph.D.

FY 2016 through 2020

Avg Enrollment Growth Projected next 3 years



Data Source: Data acquired from the Center for Institutional, Evaluation, Research & Planning (CIERP)

PhD Program Status

- Best PhD program for time to degree at UTEP
  - 3.63 years, -1.67 years shorter than US average
- Degrees awarded – 4-year average
  - 7 PhD / year
  - Best in COEN
- Large number of PhD supported by external funding
  - 70.2%
  - Best in COEN

How to Apply

GRADUATE SCHOOL

FUTURE STUDENTS CURRENT STUDENTS FUNDING PROFESSIONAL DEVELOPMENT FACULTY FORMS MY UTEP RESOURCES FOR QUICK LINKS

Program	College/School	Semester(s) Available		
MBA Plus Graduate Certificate/Management (Must have an MBA degree to apply to this program.)	Business Administration	Spring 2022	Fall 2022	
MBA Plus Graduate Certificate/Marketing (Must have an MBA degree to apply to this program.)	Business Administration	Spring 2022	Fall 2022	
MBA Plus Graduate Certificate/Operations & Supply Chain Mgmt (Must have an MBA degree to apply to this program.)	Business Administration	Spring 2022	Fall 2022	
MBA Plus Graduate Certificate/Org Behavior & Human Res Mgmt (Must have an MBA degree to apply to this program.)	Business Administration	Spring 2022	Fall 2022	
MBA/MPA	Business Administration	Spring 2022	Fall 2022	
Mechanical Engineering/MS	Engineering	Spring 2022	Summer 2022	Fall 2022
Mechanical Engineering/PHD	Engineering	Spring 2022	Fall 2022	

- GRE is needed. But…
- Also, graduate school is working on waiving it for UTEP UG

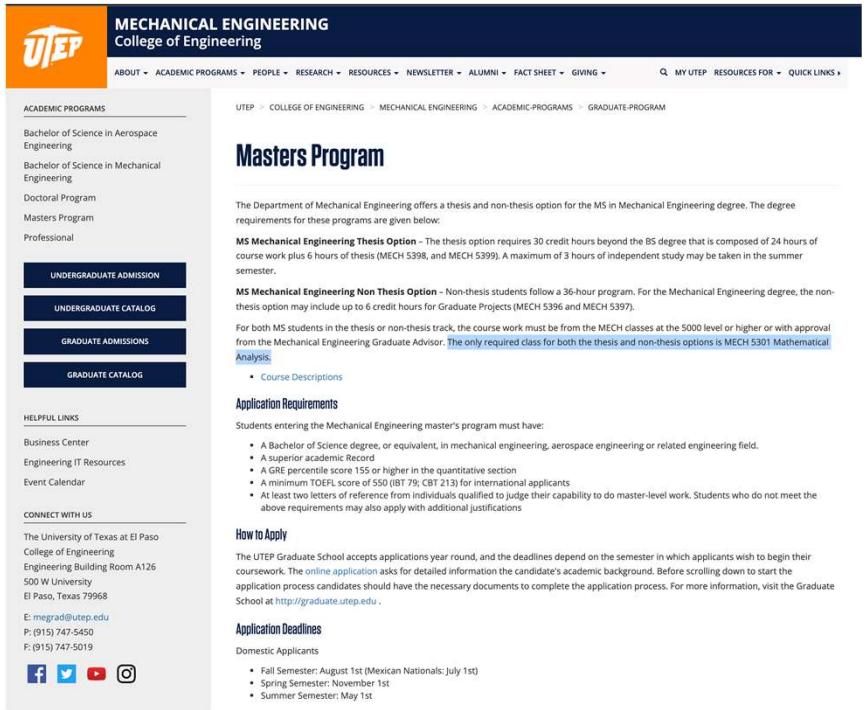
https://www.utep.edu/graduate/apply-now/apply-now-domestic.html

Degree Plan

Degree Plan

Required Credits:30

MS in Mechanical Engineering (All courses require a grade of C or better)		
Major Electives:		
Select eighteen hours of the following:		18
MECH 5302	Solid Mechanics I	
MECH 5303	Heat Transfer I	
MECH 5306	Fluid Dynamics	
MECH 5310	Thermodynamics	
MECH 5312	Solid Mechanics II	
MECH 5318	Analytical Dynamics	
MECH 5351	Intro to 3D Eng & Additive Mfg	
MECH 5390	Special Topics Mechanical Engr	
MECH 5391	Individual Studies	
MECH 5396	Graduate Projects	
MECH 5397	Graduate Projects	
Thesis/Non-Thesis Option:		
Select one sequence below:		
Thesis Option:		**6**
MECH 5398 & MECH 5399	Thesis and Thesis	
Professional Track Option:		**9**
Select nine additional hours of graduate courses in BIOL, CE, CHEM, CS, ECON, EE, GEOL, IE, IMS, MATH, MECH, MFG, MGMT, MIT, MME, PHYS, SE:		
Other Electives:		
Select six additional hours of graduate courses in BIOL, CE, CHEM, CS, ECON, EE, GEOL, IE, IMS, MATH, MECH, MFG, MGMT, MIT, MME, PHYS, SE:		6
Total Hours		**30-33**



MECHANICAL ENGINEERING
College of Engineering

ABOUT ACADEMIC PROGRAMS PEOPLE RESEARCH RESOURCES NEWSLETTER ALUMNI FACT SHEET GIVING MY UTEP RESOURCES FOR QUICK LINKS

ACADEMIC PROGRAMS

Bachelor of Science in Aerospace Engineering
Bachelor of Science in Mechanical Engineering
Doctoral Program
Masters Program
Professional

UNDERGRADUATE ADMISSION
UNDERGRADUATE CATALOG
GRADUATE ADMISSIONS
GRADUATE CATALOG

HELPFUL LINKS

Business Center
Engineering IT Resources
Event Calendar

CONNECT WITH US

The University of Texas at El Paso
College of Engineering
Engineering Building Room A126
500 W University
El Paso, Texas 79968

E: megrad@utep.edu
P: (915) 747-5450
F: (915) 747-5019

UTEP > COLLEGE OF ENGINEERING > MECHANICAL ENGINEERING > ACADEMIC-PROGRAMS > GRADUATE-PROGRAM

Masters Program

The Department of Mechanical Engineering offers a thesis and non-thesis option for the MS in Mechanical Engineering degree. The degree requirements for these programs are given below:

MS Mechanical Engineering Thesis Option – The thesis option requires 30 credit hours beyond the BS degree that is composed of 24 hours of course work plus 6 hours of thesis (MECH 5398, and MECH 5399). A maximum of 3 hours of independent study may be taken in the summer semester.

MS Mechanical Engineering Non Thesis Option – Non-thesis students follow a 36-hour program. For the Mechanical Engineering degree, the non-thesis option may include up to 6 credit hours for Graduate Projects (MECH 5396 and MECH 5397).

For both MS students in the thesis or non-thesis track, the course work must be from the MECH classes at the 5000 level or higher or with approval from the Mechanical Engineering Graduate Advisor. The only required class for both the thesis and non-thesis options is MECH 5301 Mathematical Analysis.

- Course Descriptions

Application Requirements

Students entering the Mechanical Engineering master's program must have:

- A Bachelor of Science degree, or equivalent, in mechanical engineering, aerospace engineering or related engineering field.
- A superior academic Record
- A GRE percentile score 155 or higher in the quantitative section
- A minimum TOEFL score of 550 (IBT 79; CBT 213) for international applicants
- At least two letters of reference from individuals qualified to judge their capability to do master-level work. Students who do not meet the above requirements may also apply with additional justifications

How to Apply

The UTEP Graduate School accepts applications year round, and the deadlines depend on the semester in which applicants wish to begin their coursework. The online application asks for detailed information the candidate's academic background. Before scrolling down to start the application process candidates should have the necessary documents to complete the application process. For more information, visit the Graduate School at http://graduate.utep.edu .

Application Deadlines

Domestic Applicants

- Fall Semester: August 1st (Mexican Nationals: July 1st)
- Spring Semester: November 1st
- Summer Semester: May 1st

http://catalog.utep.edu/grad/college-of-engineering/mechanical-engineering/mechanical-engineering-ms/

https://www.utep.edu/engineering/mechanical/academic-programs/graduate-program/graduate-program.html

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FAQ

- PhD program
- Fast track
- Reservation for graduate credits
- Apply for graduation, where to find forms?
- Thesis vs Non thesis (30 vs 33 credits)
- Skipping masters directly to PhD
- GRE exam (155 and above in Quantitative)
- MS in Aerospace Engineering - Fall 2022
- Total amount of credits and what exactly to take
- …

Thank you!

Q&A