



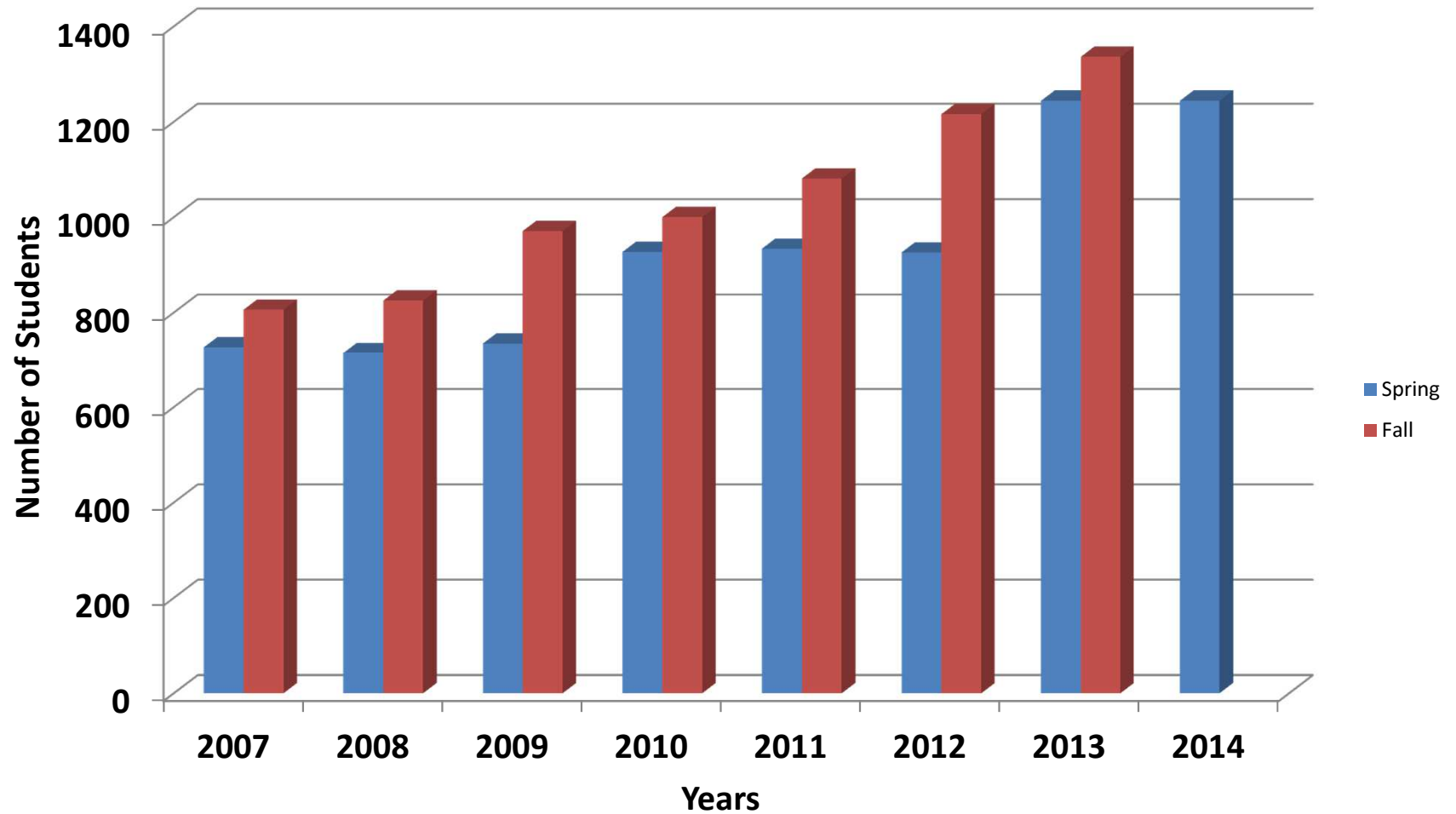
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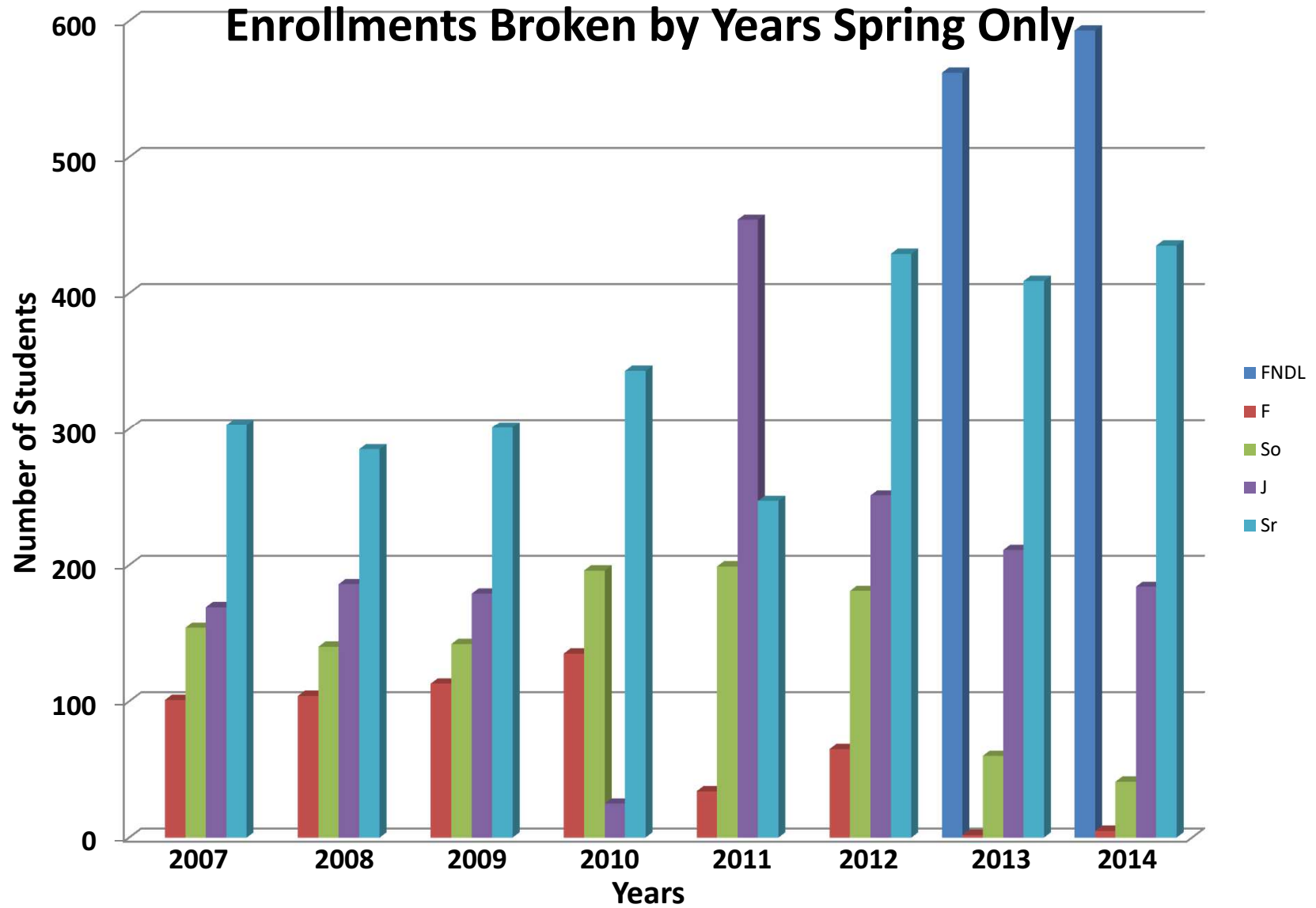
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College of Engineering

Department of Mechanical Engineering

Dr. Jharna Chaudhuri
Professor and Chair
Department of Mechanical Engineering
Texas Tech University
Presentation to
ME Industrial Advisory Board
and
ME Academy
April 2014

Undergraduate Enrollment History in Mechanical Engineering at TTU





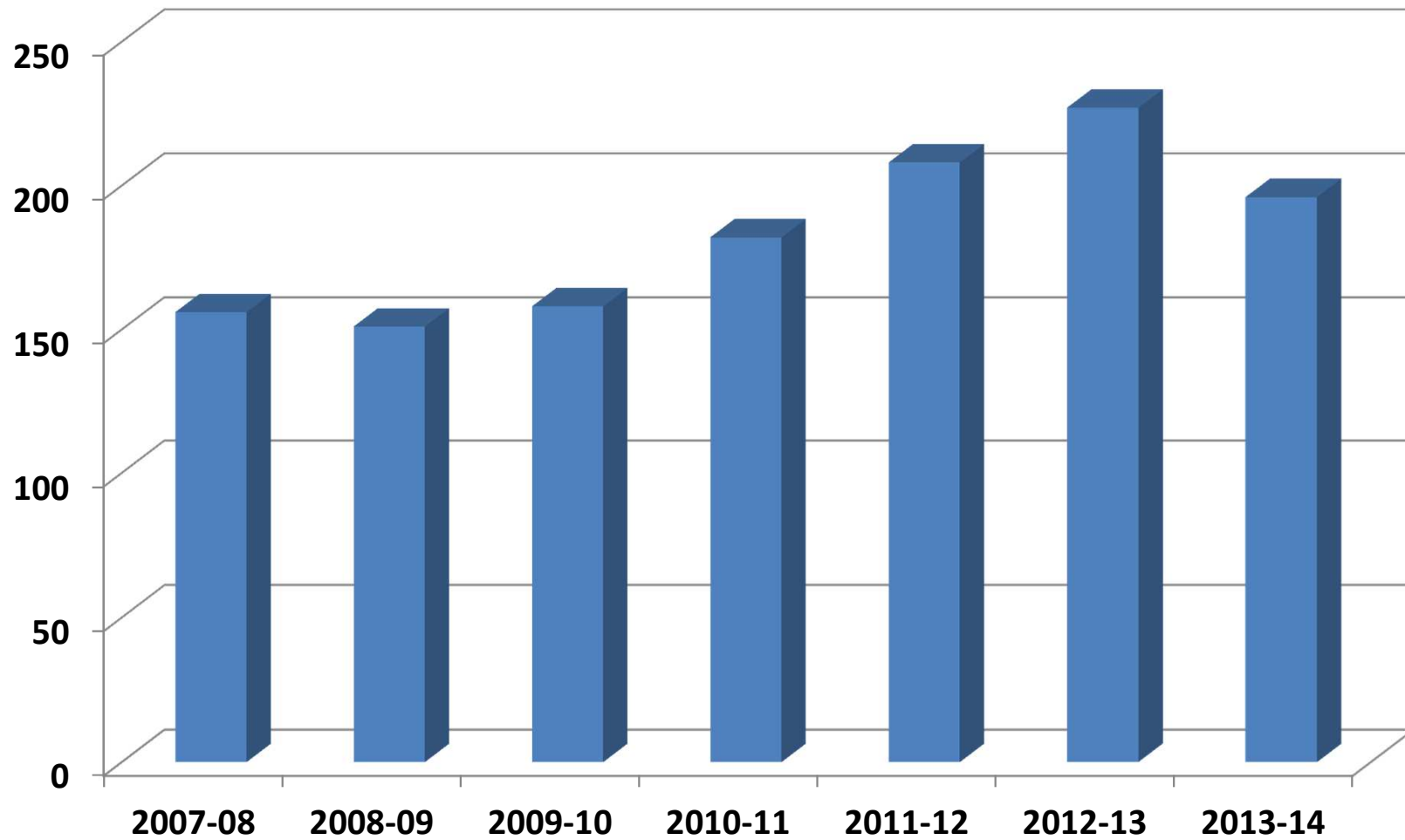


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Bachelor's Degrees Awarded in Mechanical Engineering at TTU



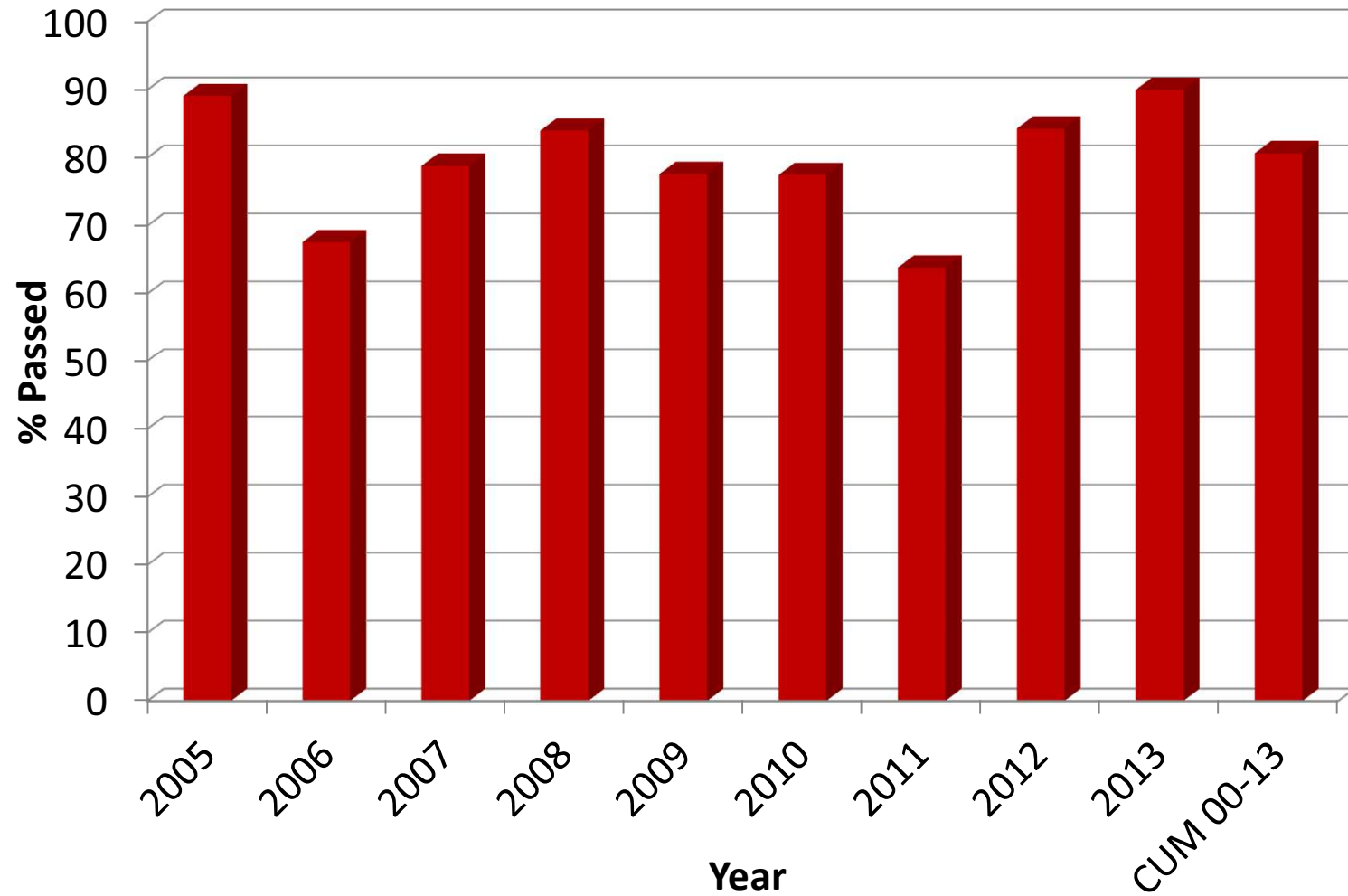


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TTU Mechanical Engineering FE Exam Pass Rate



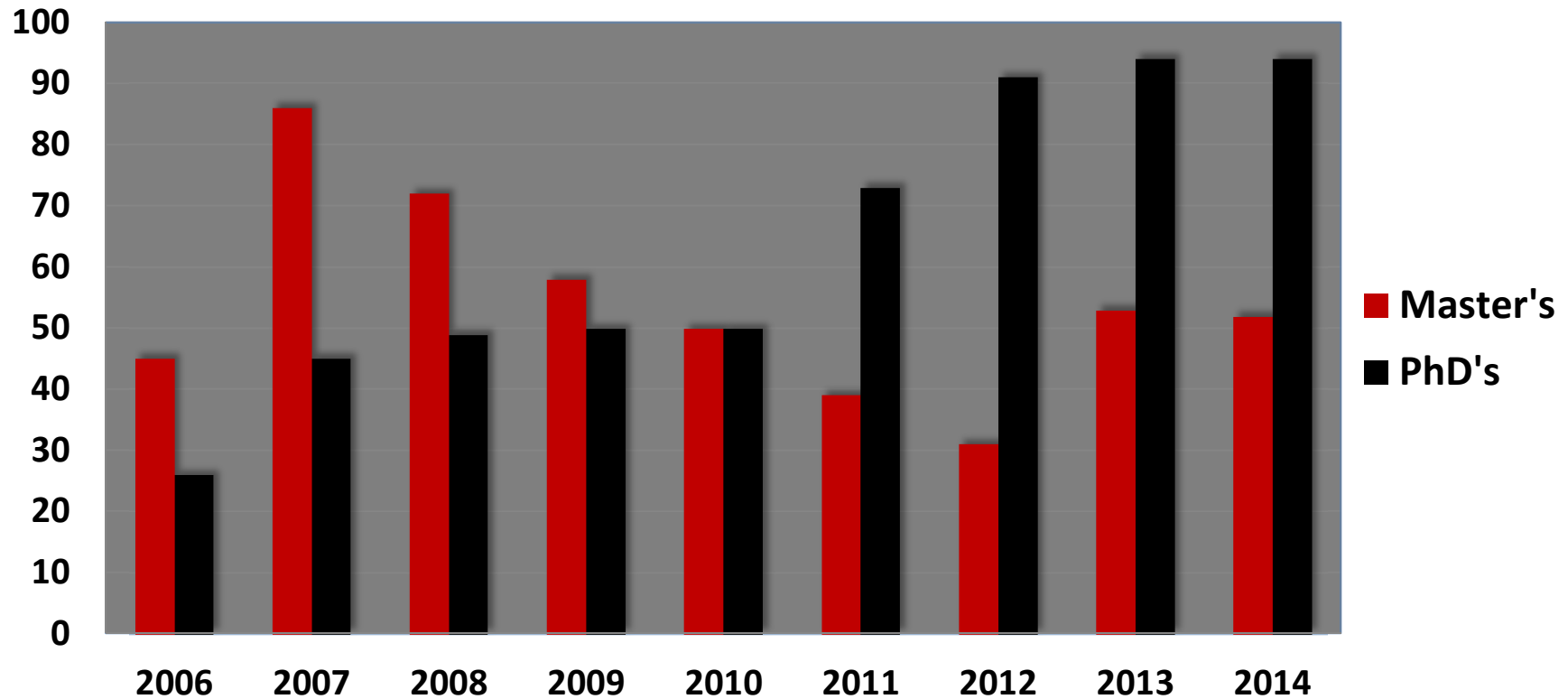


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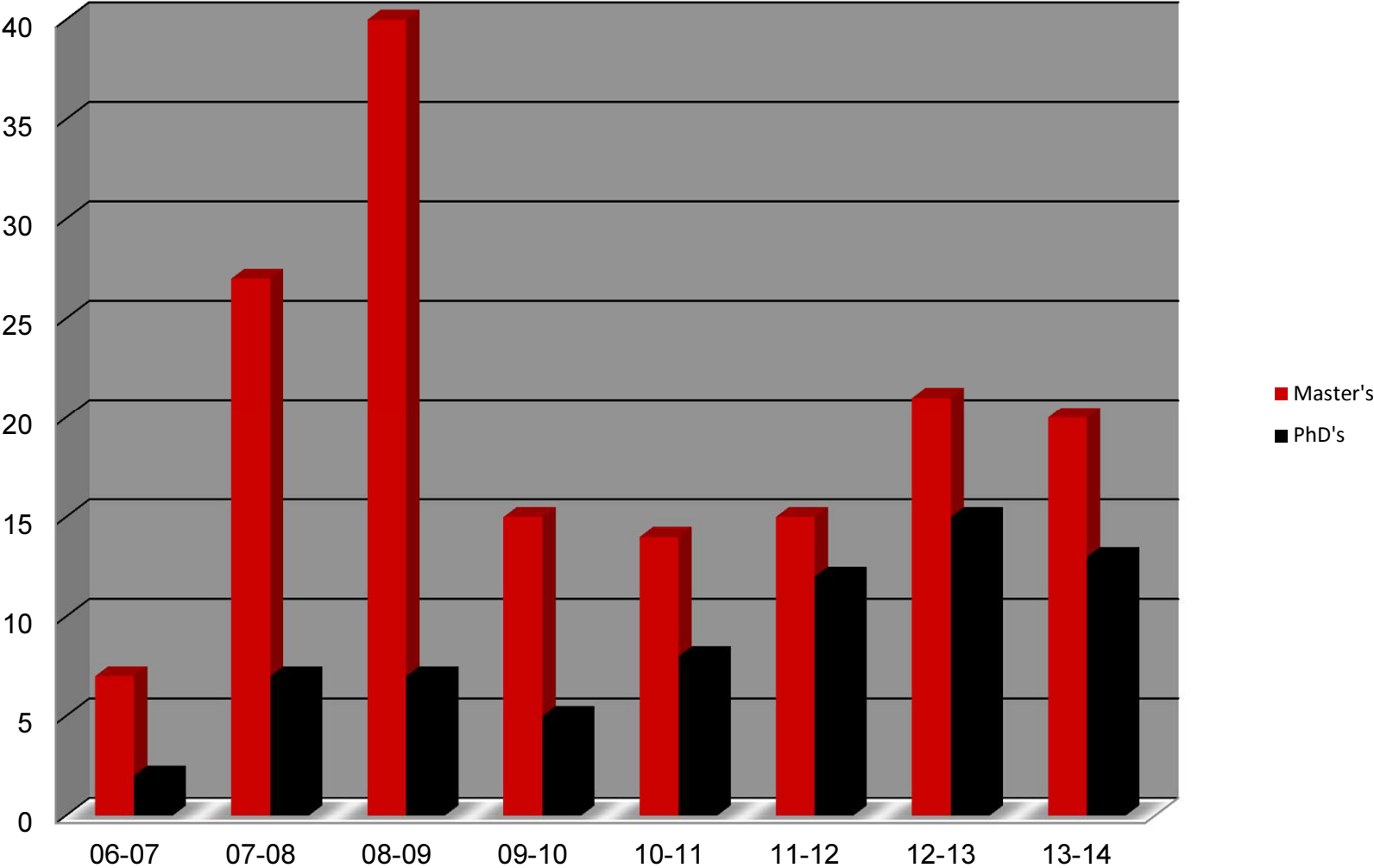
Department of Mechanical Engineering

Graduate Enrollment History in Mechanical Engineering at TTU

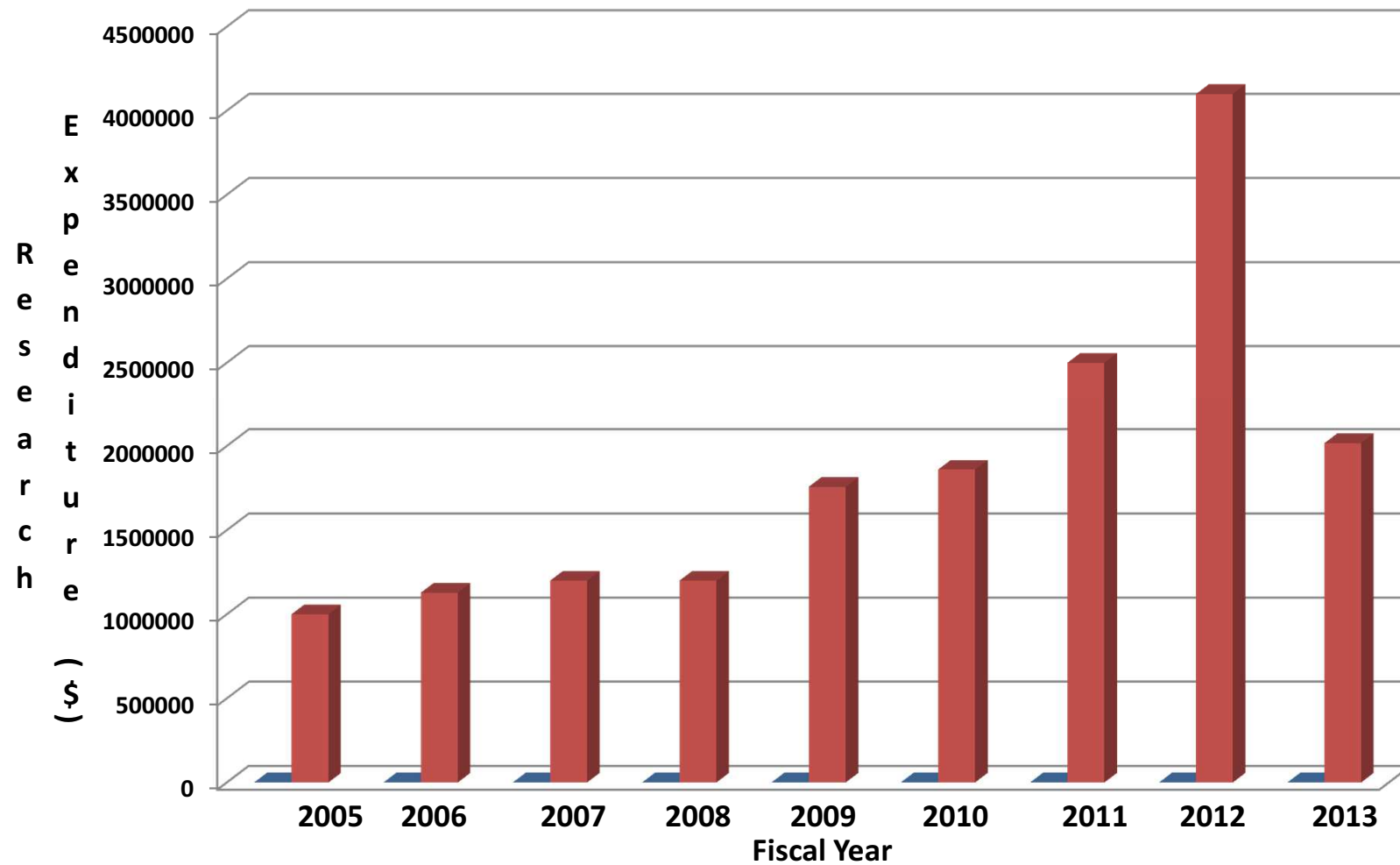


Master's and Ph.D.'s Awarded in Mechanical Engineering at TTU

(Degrees awarded for 11-12 are estimated)



TTU Mechanical Engineering Sponsored Research Awards By Faculty Home Department



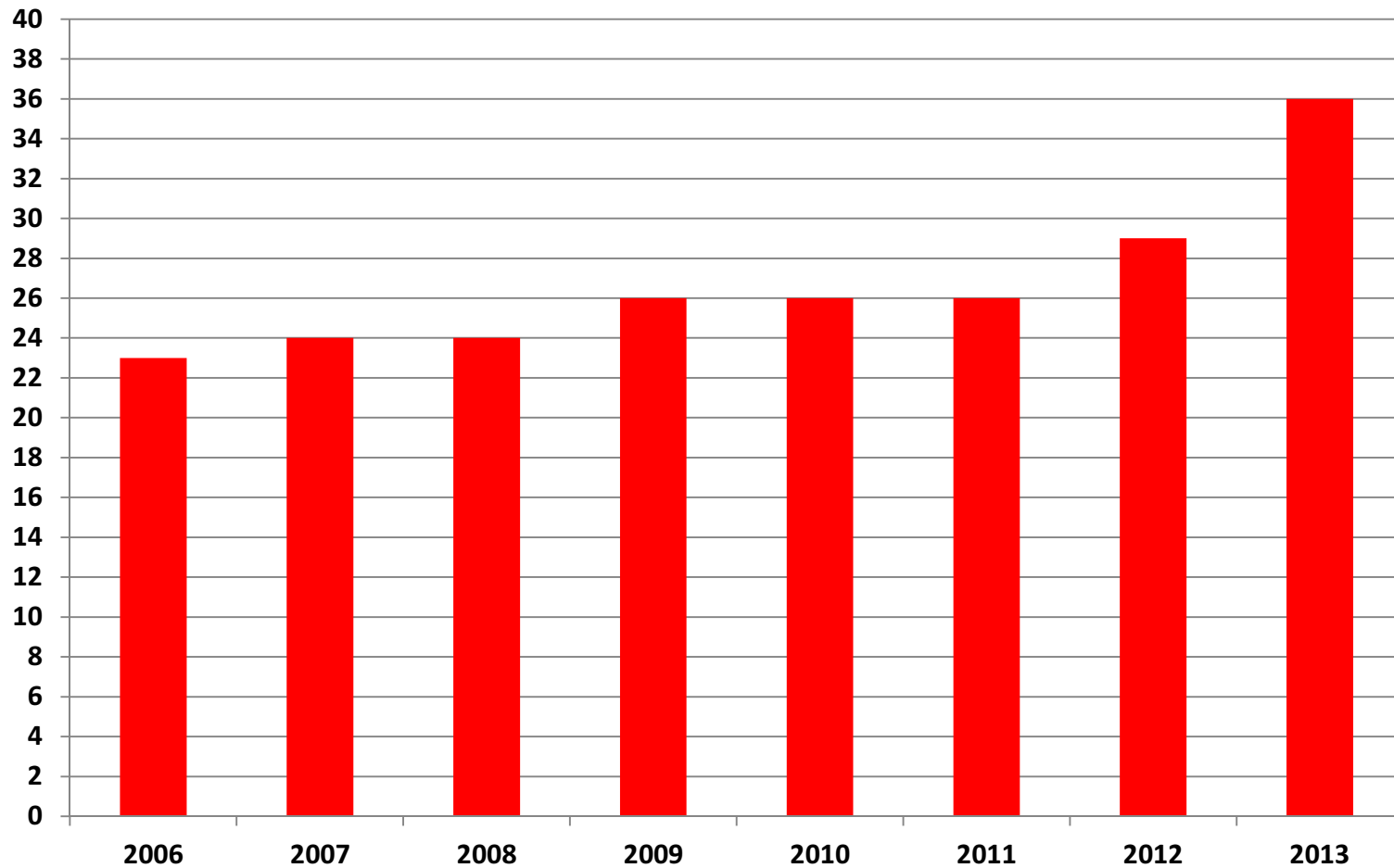


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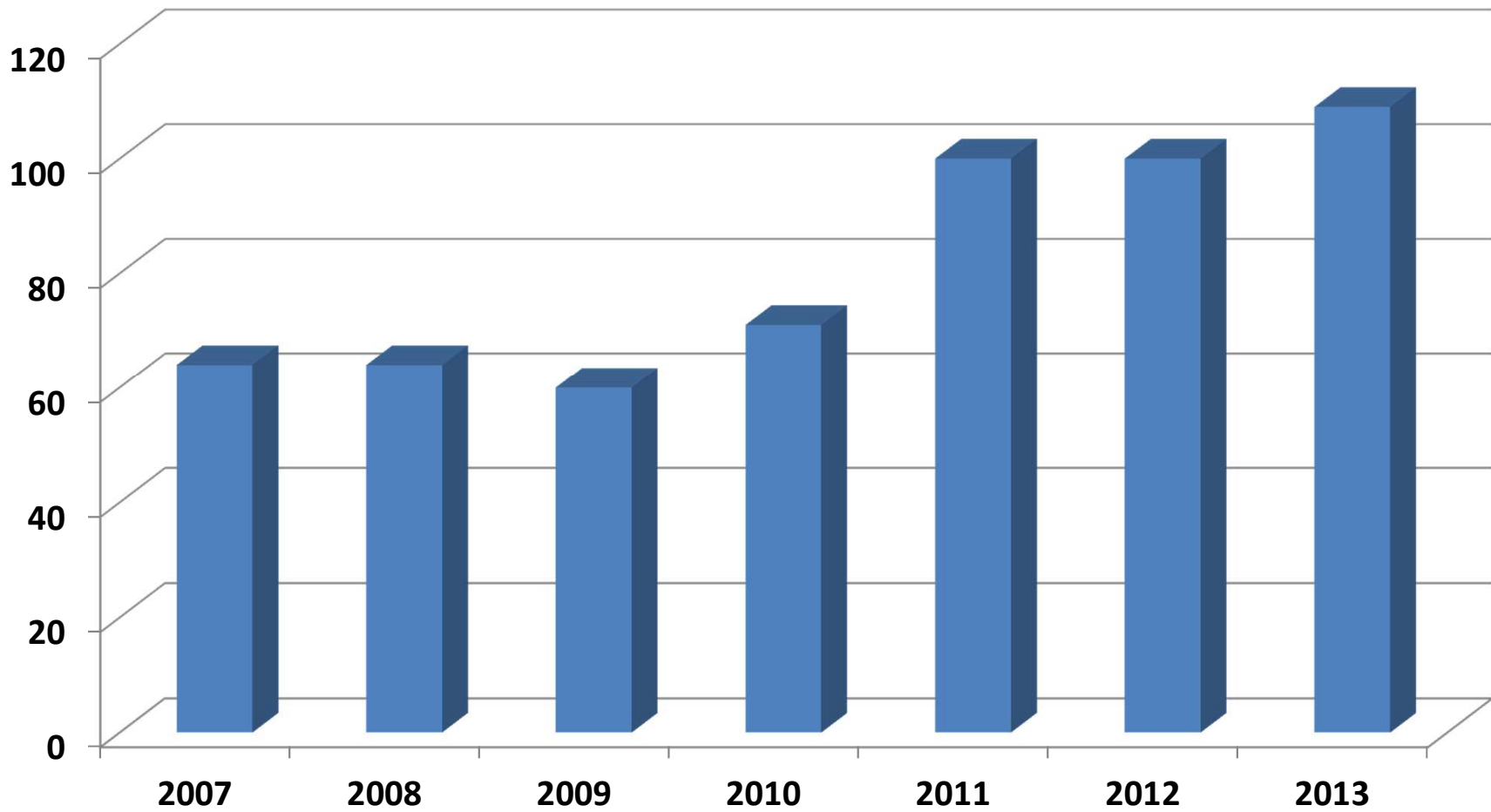
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Mechanical Engineering Faculty, Tenure-Track (Data through Fall 2013)



TTU Mechanical Engineering Journal Publication History





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Awards



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Barhorst Named ASME Fellow

**Dr. Alan Barhorst, professor of mechanical engineering
has been elected as a
fellow of the American Society of Mechanical Engineers
(ASME)**





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Castillo Named ASME Fellow

Dr. Luciano Castillo, Don Kay and Clay Cash Foundation Engineering Chair in Wind Energy and professor of mechanical engineering has been elected as a fellow of the American Society of Mechanical Engineers (ASME)





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Chaudhuri Named ASME Fellow

Dr. Jharna Chaudhuri, mechanical engineering department chair and professor of mechanical engineering, has been elected as a fellow of the American Society of Mechanical Engineers (ASME)





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Department of Mechanical Engineering

ME Wins Departmental Excellence in Teaching Award

The Department of Mechanical Engineering has been named the winner of the Teaching Academy's Departmental Excellence in Teaching Award for unique and significant contributions to the teaching mission of the University.



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ME Hosts ASME District E SPDC, Wins Awards in Competition

Old Guard Technical Poster Competition:

2nd Place: Kristen Smith - "Design: Manufacturing Process of a Left Ventricular Testing Device"

3rd Place: Danielle McNeese - "Unmanned Aerial Vehicle for the ASME 2014 Student Design Competition"

Old Guard Oral Presentation Competition:

1st Place: Michael Crump - "Subsea Fluid Connector"

4th Place: Brandon King - "Student Engineering Design: Triumph & Failure in a Quest of Optimization"

Student Design Competition:

2nd Place: Team Gamma - Jesse Latimer, Danielle McNeese, Casey Chapman, Jake Hempel, Brett Anderson

4th Place: The Dream Team - Courtney Billingsley, Brandon King, Andrew Fillingim, Cody Collins, Sterling Sanders, Ana Echeverria



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Archis Marathe received 2014 Helen DeVitt Jones Excellence in Graduate Teaching Award



Peter McDonough was accepted into the TEACH



which is modeled after the national Preparing Future Faculty movement. The TEACH program assists graduate students in further developing teaching skills and exploring faculty roles on a college or university campus.

Richa Padhye received the Summer
Dissertation/Thesis Research Award



Duc Pham received a travel award
from the United States Association for
Computational Mechanics



Haopeng Zhang, a doctoral student,
received the NSF student travel
support award for a conference



Can Liu was awarded a CH Foundation Doctoral Fellowship to pursue a doctoral degree in mechanical engineering, an honor give to outstanding prospective students of Texas Tech University.



Alex Rivera and Godlove Wanki were
named recipients of the President's
Excellence in Diversity and Equity
Student Awards for 2013





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Sean Miller received the McAuley Distinguished Engineering Student Award. He was selected based on his outstanding academic achievements, honors, and activities





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Faculty News



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Texas Tech Hosts FTC Regional Robotics Championship



Teams of 9th-12th graders from the western half of Texas participated in the FIRST® Tech Challenge (FTC) Panhandle-Plains Regional Championship Tournament on March 3 for an opportunity to win statewide recognition for design excellence, sportsmanship and teamwork and to advance to the National Championship in St. Louis.

The event will be hosted by Dr. Alan Barhorst, a professor of mechanical engineering.



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Alumni News



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Faculty News



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Dr. Lawrence Remembered

Dr. James (Jim) Harold Lawrence Jr. passed away at home surrounded by family on September 25, 2013, after a brief illness. Born on February 9, 1932 in Beatrice, Nebraska, he served as chair of the Department of Mechanical Engineering and was employed at Texas Tech for more than 40 years





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Dr. Hanna Moussa joined Texas Tech in Fall of 2012. He earned a B.S. in radiological health physics and a M.S in radiological sciences and protection from the University of Massachusetts, Lowell. He received a Ph.D. in nuclear engineering with a concentration on radiological engineering and health physics in 2000 from the University of Tennessee (UT) at Knoxville.



Dr. Hanna Cho received B.S. and M.S. degrees in mechanical engineering from Yonsei University and earned a Ph.D. in mechanical science and engineering at the University of Illinois at Urbana-Champaign (UIUC) in 2012.



Dr. Carsten H. Westergaard earned a Ph.D from the Danish Technical University with a thesis on optical computing and laser based turbulent flow measurements. He is president of NextraTEC Inc





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Additional Faculty and Instructor Positions

- Two Faculty positions will be filled this year (Drs. Oler and Tate's Replacement)



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Additional Faculty and Instructor Positions

- Adjuncts/Instructors/GPTI positions as needed due class size limitations (maximum 49 students).
- Instructors Mosedale, Hanson, Gray, C. Berg, Fanning, Branson, Han, Snoeyink, GPTIs.



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Department of Mechanical Engineering

Undergraduate Laboratory Development

- Phillips 66 Donation: Dynamometer for Engine Experiment
- 3D Printer
- New Impact Testing Machine
- Upgrading Tensile Testing Machine
- Manometer and Force Balance
- Upgraded Control lab
- Proposals submitted to the college for renovation of three undergraduate labs and machine shop



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Department of Mechanical Engineering

Recent Research Space Renovation

- Done
 - Dr. Kumar's Lab
 - Dr. Jian Sheng's lab
 - Dr. Jungkyu Kim's lab
- On Going
 - Dr. Beibei Ren's lab
 - Dr. Hanna Cho's lab



TEXAS TECH UNIVERSITY

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Department of Mechanical Engineering

General Comments

- The Mechanical Engineering Department students (Undergraduate 1,338, graduate 146), faculty (35) and instructors (8) are increasing in number.
- The ME undergraduate program is well reputed as indicated by enrollment and competition among industry to recruit our students.
- Honors program in ME is working well.
- Mandatory exit exam in Design II is working well.



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Department of Mechanical Engineering

General Comments

- The department appreciates the Industry Projects for Capstone Design class.
- Common syllabus and common exams at lower level courses are going well.
- Common syllabus and common course materials at upper level courses are going well.



TEXAS TECH UNIVERSITY

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College of Engineering

Department of Mechanical Engineering

Implementation Plan (Strategies)– 2014-2015

- Continuously improve undergraduate and graduate programs.
- Continuously improve Undergraduate Laboratories and Machine Shop
- Aggressively seek more external funding to support more graduate students on external funds.
- Work towards increasing the FE exam passing rate (83% in October , 2013).
- Encourage more students to assume co-op/internship.
- Work with College Development office to raise funding.
- Get more space (Industrial Engineering space in Fall, 2014)



TEXAS TECH UNIVERSITY

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Department of Mechanical Engineering

Long Term Implementation Plan- Strategies

- Maintain an excellent undergraduate program by improving it continuously
- Aggressively seek external funding; must support more graduate students on research grants.
- Improve ranking of the Graduate Program.
- Get more faculty