MechSE
Graduate Programs
Mechanical Engineering • Theoretical and Applied Mechanics

ILLINOIS
Mechanical Science & Engineering
GRAINGER COLLEGE OF ENGINEERING
Cutting-edge Collaboration and Creativity

The Department of Mechanical Science and Engineering at Illinois offers world-class graduate-level education and research opportunities in both Mechanical Engineering and Theoretical and Applied Mechanics. As part of Illinois’ College of Engineering—consistently ranked among the top five in the world—MechSE offers exceptional opportunities you won’t find anywhere else. Our graduates go on to careers as leaders in innovation, research, education, and public service.

MechSE students are conducting research that’s truly changing the world. Our innovation-rich environment—along with a campus culture of championing cutting-edge ideas—creates a graduate experience that enables you to push the boundaries of engineering, science, and creativity.

Our grad students consistently achieve honors for their work, competing year after year in the Cozad New Venture Competition and the Illinois Innovation Prize, both of which recognize the top student entrepreneurs at Illinois.

Champaign-Urbana’s proximity to Chicago—one of the fastest-growing global technology and manufacturing hubs—offers unique opportunities and resources for graduate students looking to translate their work into a startup or other commercial venture.

In addition, the Research Park at the University of Illinois is a thriving innovative community, with a startup incubator and an impressive lineup of established national and international companies.

Flexible Degree Options

- MS and PhD in Mechanical Engineering (ME)
- MS and PhD in Theoretical and Applied Mechanics (TAM)
- Master of Engineering in Mechanical Engineering (M.Eng.ME) – non-thesis professional graduate degree

True to Illinois’ global reach, we offer two online options: the MSME and the Master of Engineering in Mechanical Engineering, each with the same degree requirements as the on-campus options. The degree awarded through the online program is the exact same degree awarded to on-campus MSME and M.Eng.ME students. In the M.Eng.ME program, you can earn a graduate degree in as little as one year (full-time) or up to five years (part-time).

Unparalleled Research Opportunities

MechSE has a vibrant research-focused program, operating at about $35 million per year.

More than half of our professors have received young investigator awards from the National Science Foundation or Department of Defense.

60 full-time faculty are engaged in multidisciplinary research based on six primary areas:

- Biomechanics
- Controls and Dynamics
- Fluids and Thermal Sciences
- Nanomechanics and Nanomanufacturing
- Solids and Materials
- Mechanics and Computation

Our students contribute an annual average of 200 refereed journal articles and present even more papers at conferences around the world.

Strength in Numbers

MechSE’s graduate programs are consistently ranked among the best in the world.

1 in 4 recent PhDs went on to Assistant Professor positions. Other graduates earn exciting opportunities in industry, at national labs, and as postdocs.

85% of our MS and PhD students are fully funded through fellowships, research assistantships, and teaching assistantships.

Student Engagement

MechSE is committed to fostering an environment in which students receive the benefits of a large department while maintaining a supportive and collegial environment. Student organizations such as Graduate MechSE Students (GraMS), MechSE Graduate Women (MGW), and ENVISION (ENGINEers Volunteering In Stem educatION) leverage this commitment through professional and social development, fellowship, outreach, networking, and more.
Why I Chose MechSE at Illinois

“My goal in graduate school was to combine my interests in controls with the biological field, and the immense amount of collaboration within MechSE has allowed me to pursue both paths. Assistance from faculty both within and outside the classroom has helped expand my learning capabilities beyond my expectations.”

Ashley Armstrong (BS mechanical engineering, University of Notre Dame, 2015) is an NSF Fellow and NCAA Postgraduate Scholarship winner working with Andrew Alleyne and Amy Wagoner Johnson.

“MechSE offers an unparalleled graduate education. I can attest to an environment that is conducive to honing engineering aptitude through state-of-the-art research and creative spirit, and offering opportunities to make a real difference in my areas of interest. Among graduate programs, MechSE houses the finest facilities, collaborative incentives, and a diverse community.”

Keong Han Yong (BS mechanical engineering, Georgia Tech, 2013) works in SungWoo Nam’s research group.

“I chose MechSE at Illinois because it offers one of the best engineering programs in the world, with top-level faculty and state-of-the-art facilities. Being here is a great opportunity for my professional development and future career. The collaborative atmosphere on the U of I campus is ideal for effective scientific research.”

Damiano Baccarella (BS/MS aerospace engineering, University of Pisa, Italy, 2006) is a MechSE Departmental Fellow working with Tonghun Lee.

“Graduate school at MechSE is the perfect match for me! I get a strong background of pure mechanics and rigorous mathematics and physics, along with comprehensive training from world-renowned faculty. And I’m able to engage in challenging and interdisciplinary research. MechSE also supports and empowers me as a woman in graduate studies to successfully prepare for my career.”

Svjetlana Stekovic (BS mechanical engineering, Tennessee Tech, 2013) is an NSF Fellow working with Scott Stewart.

“I found the graduate program in Theoretical and Applied Mechanics (TAM) particularly appealing because it emphasizes a strong foundation in mechanics and applied mathematics. The program also offers a Computational Science and Engineering (CSE) option. Most importantly, I was impressed with the strength of the research conducted by MechSE faculty. And Champaign-Urbana provides a nice college town atmosphere with plenty of culture.”

Taiyo Wilson (BS physics, Illinois Wesleyan University, 2012; MS computational science and engineering, Harvard University, 2014) is a NASA Space Technology Research Fellow working with Kelly Stephani.

Talk to us about the reasons YOU should choose MechSE at the University of Illinois.

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