MECHANICAL ENGINEERING AND APPLIED MECHANICS (PHD)

The Mechanical Engineering and Applied Mechanics (MEAM) program provides a comprehensive graduate education at the Ph.D. level supported by over 30 faculty and 140 graduate students working to solve a broad range of problems.

Description

The program boasts expertise in fundamental areas such as solids, fluids, heat transfer, dynamics, vibrations, materials, manufacturing, and design with applications from medical robotics to rehabilitation, magnetic levitation to energy applications, 3D printing to nano-machining, tissue engineering to advanced fibers for composites, materials characterization to nondestructive evaluation, and computational analysis and simulation to computational materials optimization.

The faculty and students in the program work on a range of problems focusing frequently on a mix of experimental understanding and characterization, theoretical modeling and simulation, numerical analysis, and modeling and simulation. These activities are supported through a broad range of experimental facilities including laboratories for computational fluid and solid mechanics and thermodynamics; micro-mechanics, fabrication and combustion; robotics and mechatronics; rapid solidification; thin films; x-ray diffraction and electron microscopy; atomic force microscopy; biomaterial and mechanotranduction; tissue and arterial mechanics; nontraditional manufacturing; dynamics and vibrations; nondestructive evaluation and ultrasonics; organic and nano-electronics; polymer composites and advanced fibers; polymer mechanics and 3D printing; power systems; surface mechanics and tribology; trauma mechanics.

Students entering the program with a B.S. degree can either enter an M.S. program or directly start a Ph.D. program, with the option of obtaining an M.S. on the way to completing their Ph.D. Students in the program at the M.S. level can also select from a broad range of specializations.

Program-Related Information

Graduate Chair

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Support Staff

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Program Website

https://engineering.unl.edu/mme/graduate-programs/

Applying for Admission

Standard requirements for all graduate programs

- Application for Admission with $50 non-refundable application fee (https://graduate.unl.edu/admissions/requirements/#appfee).
- Transcripts (https://graduate.unl.edu/admissions/requirements/#transcripts) (unofficial): Uploaded as part of application form.

  If International: Uploads must include all college- or university-level transcripts or mark sheets (records of courses and marks earned), with certificates, diplomas, and degrees plus certified English translations.

  After admission: Official documents are required from all students who are admitted and enroll. Photocopies of certified records are not acceptable. International students enrolled in other U.S. institutions may have certified copies of all foreign records sent directly to the Office of Graduate Studies by their current school's registrar office.
- If applicant's native language is not English, verification of English proficiency (https://graduate.unl.edu/admissions/english-proficiency/) is required.

  When sending TOEFL scores, our institution code is 6877 and a department code is not needed.
- If applicant is not a US citizen and expects an F or J visa: financial information (https://graduate.unl.edu/prospective/international/financial/).
- Applicants must also fulfill any additional requirements the department specifies at the time of application.

Additional requirements specific to this program

- GRE: The GRE requirement is waived for those who have a degree from a US institution that is ABET-accredited. In addition, the GRE requirement can be waived for all other applicants for Fall 2023, Spring 2024, Summer 2024 and Fall 2024, if the applicant simply notes "No" to the question about whether they have taken the GRE.

  If an applicant self-reports GRE scores, they must also have ETS.org send official GRE scores sent to the University of Nebraska-Lincoln (institution code 6877).

  Applicants who wish to have their GRE scores evaluated as part of this application are expected to have at least a minimum Quantitative score of 155, and a minimum combined Quantitative and Verbal score of 305.
- Resume/CV
- Personal Statement: Statement of Purpose including research interests and objectives
- Research Interest: Review current faculty and their research areas.
- Three letters of recommendation

Admission Application Deadlines

For full financial consideration, students must apply by January 15 for Fall, September 15 for Spring, and November 15 for Summer.

Requirements

Hours required: 90