ENGINEERING (PHD) - MATERIALS ENGINEERING

Description

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

Support Staff

Program Website

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

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

- Entrance exam(s): GRE optional and not required.
- Personal Statement: This statement of purpose should include your research interests and objectives.
- Resume or CV
- Three letters of recommendation
- Research Interest: Review current faculty and their areas of research.

Admission Application Deadlines

- For full financial consideration, students must apply by January 15 for Fall.

Requirements

Hours required: 90