DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING

http://engineering.tamu.edu/materials (http://engineering.tamu.edu/materials/)

Head: I. Karaman
Director, Graduate Program: M. Demkowicz

Materials Science and Engineering (MSEN) at Texas A&M University is jointly operated by the College of Engineering and College of Science. The Department works collaboratively with several universities nationally and internationally as well as with institutions including several NASA Research Centers, Army Research Laboratory, Air Force Research Laboratory, U.S. Naval Research Laboratory, and many of the Department of Energy National Laboratories, in addition to dozens of fortune 500 companies.

Graduate Study in the MSEN department provides the fundamental knowledge, practical skills, and professional experience necessary to enter a successful career involving advanced materials. Many of today's most pressing scientific problems stem from the limitations of materials currently available, and this department is at the forefront of new knowledge and discovery. Materials science and engineering involves the characterization of the physical and chemical properties of solid materials—metals and alloys, ceramics, magnetic materials, polymers, optical materials, semiconductors, superconductors, and composites—for the purpose of using, changing, or enhancing inherent properties to create or improve end products.


Modern facilities and equipment are available to enhance study and instruction in Materials Science and Engineering. These facilities include the following: Corrosion and Materials Reliability Laboratory, Microstructural Engineering of Structural and Active Materials (MESAM), Mass Spectroscopy Application and Collaboration Facility, Materials Characterization Facility (MCF), Interdisciplinary Soft Matter Facility (SoMF), Center for Infrastructure Renewal (CIR), Center for Research Excellence on Dynamically Deformed Solids (CREDDS), Materials Development and Characterization Center, Microscopy and Imaging Center (MIC), Nuclear Science Center, and Polymer Technology Consortium (PTC).

Degree Programs

The Department offers graduate studies leading to the degrees of: Master of Engineering (non-thesis), Master of Science (thesis and non-thesis), and Doctor of Philosophy in Materials Science and Engineering. This multidisciplinary department includes faculty members from several disciplines, including aerospace engineering, biomedical engineering, chemical engineering, chemistry, electrical engineering, mechanical engineering, nuclear engineering and physics.

Certificate Programs

Two certificate programs are offered to enable individuals the opportunity to gain specific knowledge and skill-sets: Corrosion Science and Engineering, and Materials, Informatics and Design. All departmental certificates are stand-alone programs, enrollment in a degree program is not required. Certificates may be awarded upon completion of requirements.

Contact

For more information on obtaining any of the degrees and/or certificates, please contact the graduate advising office at msen-advising@tamu.edu.

Faculty

Akbulut, Mustafa, Associate Professor
Materials Science & Engr
PHD, University of California, Santa Barbara, 2007

Alge, Daniel L, Assistant Professor
Materials Science & Engr
PHD, Purdue University, 2010

Arroyave, Raymundo, Professor
Materials Science & Engr
PHD, Massachusetts Inst of Technology, 2004

Asadi, Amir, Assistant Professor
Materials Science & Engr
PHD, University of Manitoba, 2013

Atli, Kadri Can, Research Assistant Professor
Materials Science & Engr
PHD, Texas A&M University, 2011

Balbuena, Perla B, Professor
Materials Science & Engr
PHD, University of Texas, 1996

Banerjee, Sarbajit, Professor
Materials Science & Engr
PHD, State University of New York at Stony Brook, 2004

Batteas, James D, Professor
Materials Science & Engr
PHD, University of California, Berkeley, 1995

Bazzi, Hassan, Professor
Materials Science & Engr
PHD, McGill University, 2003

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Materials Science & Engr

Bullard, Jeffrey, Professor
Materials Science & Engr
PHD, University of California - Berkeley, 1993

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Case, Raymundo P, Professor of the Practice
Materials Science & Engr
PHD, University of Manchester Institute of Science and Technology, 2002
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Materials Science & Engr
PHD, Penn State University, 2001

Cheng, Zheng Dong, Professor
Materials Science & Engr
PHD, Princeton University, 1999

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Materials Science & Engr
PHD, University of Delaware, 1997

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PHD, Massachusetts Institute of Technology, 2005

Elabd, Yossef A, Professor
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PHD, Johns Hopkins University, 2001

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PHD, Georgia Institute of Technology, 2009

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PHD, University of Illinois Urbana Champaign, 2006

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PHD, University of South Carolina, 2004

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PHD, Texas Tech University, 2003

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Materials Science & Engr
PHD, Massachusetts Inst of Technology, 1984

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PHD, University of Minnesota, 2004

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PHD, Cornell University, 2002

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PHD, Georgia Institute of Technology, 2007

Karaman, Ibrahim, Professor
Materials Science & Engr
PHD, University of Illinois - Urbana-Champaign, 2000

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Materials Science & Engr
PHD, University of California, 1984

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PHD, University of Illinois - Urbana-Champaign, 2014

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PHD, Clemson University, 2012

Lagoudas, Dimitris C, Professor
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PHD, Lehigh University, 1986

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PHD, Ecole Nationale de Mécanique et d'Aérotechnique, France, 2013

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Materials Science & Engr
PHD, Stevens Institute of Technology, 1992

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PHD, University of California, 2015
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Materials Science & Engr  
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McShane II, Michael J, Professor  
Materials Science & Engr  
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PHD, The Scripps Research Institute, 2015

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Materials Science & Engr  
PHD, University of Illinois at Urbana Champaign, 2009

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PHD, Texas A&M University, 1965

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Materials Science & Engr  
PHD, Harvard University, 1971

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Materials Science & Engr  
PHD, Texas Tech University, 2008

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Materials Science & Engr  
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Materials Science & Engr  
PHD, Stanford University, 1979

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Radovic, Miladin, Professor  
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PHD, Drexel University, 2001

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PHD, University of Alabama at Huntsville, 1974

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PHD, University of Illinois at Urbana-Champaign, 1986

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PHD, University of Washington, 2010

Shao, Lin, Professor  
Materials Science & Engr  
PHD, University of Houston, 2001

Sheldon, Matthew T, Assistant Professor  
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PHD, University of California, Berkeley, 2010

Srivastava, Ankit, Assistant Professor  
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PHD, University of North Texas, 2013

Su, Hung-Jue, Professor  
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PHD, University of Michigan - Ann Arbor, 1988

Sukhishvili, Svetlana A, Professor  
Materials Science & Engr  
PHD, Lomonosov Moscow State University, 1989

Talreja, Ramesh R, Professor  
Materials Science & Engr  
PHD, The Technical University of Denmark, 1974

Teizer, Winfried, Associate Professor  
Materials Science & Engr  
PHD, University of Massachusetts - Amherst, 1998

Thomas, Edwin L, Visiting Professor  
Materials Science & Engr  
PHD, Cornell, 2018

Tu, Qing, Assistant Professor  
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PHD, Duke University, 2017

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Materials Science & Engr  
PHD, University of Louisville, 2006

Wang, Jyhwen, Professor  
Materials Science & Engr  
PHD, Northwestern University, 1991

Wang, Shiren, Associate Professor  
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PHD, Florida State University, 2006

Whitcomb, John D, Professor  
Materials Science & Engr  
PHD, Virginia Tech, 1988
Wilkerson, Justin, Assistant Professor
Materials Science & Engr
PHD, Johns Hopkins University, 2014

Williams, Richard, Professor
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PHD, University of California at Berkeley, 1978

Wong, Zi Jing, Assistant Professor
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PHD, University of California, Berkeley, 2015

Wooley, Karen L, Professor
Materials Science & Engr
PHD, Cornell University, 1993

Wu, Wenhao, Associate Professor
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PHD, University of Chicago, 1992

Xie, Yu Xuan, Assistant Professor
Materials Science & Engr
PHD, University of Sydney, 2013

Yu, Choongho, Associate Professor
Materials Science & Engr
PHD, University of Texas - Austin, 2004

Zhou, Hongcai J, Professor
Materials Science & Engr
PHD, Texas A&M University, 2000

**Masters**

- Master of Engineering in Materials Science and Engineering (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/materials-science/meng/)
- Master of Science in Materials Science and Engineering (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/materials-science/ms/)

**Doctoral**

- Doctor of Philosophy in Materials Science and Engineering (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/materials-science/phd/)

**Certificates**

- Corrosion Science and Engineering Certificate (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/materials-science/corrosion-science-engineering-certicate/)
- Materials, Informatics and Design Certificate (http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/materials-science/materials-informatics-design-certificate/)