Renewable Bioenergy & Life-Cycle Analysis
Hydrology & Watershed Modeling
Phytoremediation & Constructed Wetlands
Sustainable Ecosystems
Engineering for Extreme Events (fire, earthquake, etc.)
Contaminant Fate & Transport
Sustainable Economy
Separation Science
Rheology & Multiphase Flow
Polymers
Nanomaterials
Metallic Systems
Metabolic Engineering
Environmental Research
Energy Production
Colloid & Interface Science
Biotechnology
Biomaterials
Biobased Industrial Research
CHEMICAL ENGINEERING
Nanoscale Materials & Devices
Metal & Ceramic Material Manufacturing
Mechatronics
Heat Transfer & Thermodynamics
Experimental Fluid Mechanics
Dynamics & Vibrations
Computational Solid Mechanics
Computational Fluid Dynamics
Computational Design
Composite Material Manufacturing
Composite Materials & Structures
Combustion & Fire
Biomedical & Biomechanical Engineering
Automotive Engines
Alternative & Renewable Energy
MECHANICAL ENGINEERING
Evolutionary Computation
Integrated Microsystems
Robotics
Power
Electronic Materials & Devices
Electromagnetics
Controls
Computer Engineering
Computer Systems & Networks
Computer & Network Security
Computational Biology & Bioinformatics
Biometrics
Artificial Intelligence
COMPUTER SCIENCE & ENGINEERING
Technologies
Digital Communications
Digital Signal Processing
Pattern Recognition & Image Processing
Machine Learning
Human Computer Interaction
High Performance Computing
Evolutionary Computing
Database Systems & Data Mining
Computer Systems & Networks
Computer & Network Security
Computational Biology & Bioinformatics
Biometrics
Artificial Intelligence

Certification in College Teaching: you can choose to pursue Certification in College Teaching while studying your chosen subject. This includes instruction in teaching and curriculum development in undergraduate education, coupled with teaching experience developed and guided by faculty in the College of Engineering.

BIG EXPERIENCE

Customize your engineering graduate degree from MSU to prepare you to advance in your field and succeed in employment. Our multidisciplinary approach to graduate education gives you the opportunity to engage across the College of Engineering, expanding your knowledge base and expanding potential career opportunities.

BIG DIFFERENCE

As a graduate student, I had the opportunity to take on a research project with Dr. Sami Al-Araj, who was also featured in New Scientist magazine. The project I worked on spanned from the environment to the social sciences. The project dealt with multinational companies, international banks, and academic institutions. Dr. Al-Araj was the Chairman, Iraqi National Investment Commission, and dealt with many nations. The experience I was prepared to participate in the rebuilding of Iraq. It was a rich experience for a full list.

www.egr.msu.edu/academics/graduate/
Engineering grad students collaborate with faculty and post-docs across disciplines and departments to address real-world challenges—like sustainability, health, and security.

BIG IMPACT

Working with faculty members in the College of Engineering and across campus, you will collaborate with industry partners and government agencies, and conduct research and development in the areas of sustainability, health, and security.

BIG RESULTS

With 170 faculty members in the College of Engineering and 5,000 graduate and professional students on campus, MSU offers you a bigger group of mentors.

BIG FUTURE

At MSU, you can customize your education with teaching, research, or industry experiences.

BIG COMMUNITY

With more than 10,000 graduate and professional students, MSU is big enough for every interest. See a Broadway show, learn to scuba dive, or cheer the Spartans as they compete for a national championship! Kiplinger.com named Lansing as one of the top 10 cities for young professionals, with great entertainment, a low cost of living, and high-paying jobs.

BIG OPPORTUNITIES

Masters and Doctoral degrees are available in the following areas:

- Biosystems Engineering
- Civil Engineering
- Environmental Engineering
- Chemical Engineering
- Materials Science & Engineering
- Computer Science
- Mechanical Engineering
- Engineering Mechanics
- Electrical Engineering

Everyone was so welcoming, which is not something I expected at such a large university.

AZIZAH MUHAMMAD, Doctoral Student, Mechanical Engineering

I wanted a flexible graduate program that would allow me to explore coursework in other departments.

HASSAN ABBAS, Doctoral Student, Civil Engineering

MSU really stresses collaboration. In my research lab, we work closely with people in other departments to solve complex problems.

ALOK WATVE, Doctoral Student, Computer Science

I think the most fascinating questions are at the interface between disciplines.

HEATHER GOLDSBY, Ph.D., MSU Class of 2011, NSF CI TraCS Postdoctoral Fellowship for Transformative Science using CyberInfrastructure
BIG IMPACT

Engineering grad students collaborate with faculty on cutting-edge research across disciplines and on solving the world’s biggest challenges—like sustainability, health, and technology.

MSU partners with Fortune 500 companies, national labs, government agencies, and global universities. Hundreds of collaborations include NSF, NIH, Pfizer, Boeing, Chrysler, General Electric, Toyota, DuPont, and NASA.

BIG RESULTS

With 170 faculty members in the College of Engineering and 5,000 faculty and academic staff on campus, Michigan State offers you a bigger group of mentors. Our graduate students regularly publish their research, participate in conferences, and win major awards, such as NSF Graduate and Postdoctoral Fellowships.

BIG FUTURE

At MSU, you can customize your education with teaching, research, or industry experiences. Our alumni go on to big companies, small startups, and prestigious positions. Recent placements include Dow, MIT Lincoln Labs, Google, Purdue, Cornell, Oak Ridge National Lab, ETH Zurich, and Carleton College.

BIG COMMUNITY

With more than 10,000 graduate and professional students, MSU is big enough for every interest. See a Broadway show, learn to scuba dive, or cheer the Spartans as they compete for a national championship! Kiplinger.com named Lansing as one of the top 10 cities for young professionals, with great entertainment, a low cost of living, and high-paying jobs—and The Scientist has consistently ranked MSU as one of the best places to work in academia.

BIG OPPORTUNITIES

Masters and doctoral degrees are available in 11 areas:

- Biosystems Engineering
- Civil Engineering
- Environmental Engineering
- Chemical Engineering
- Materials Science & Engineering
- Computer Science
- Mechanical Engineering
- Engineering Mechanics
- Electrical Engineering
- Material Science & Engineering

Everyone was so welcoming, which is not something I expected at such a large university.

AZIZAH MUHAMMAD,
Ph.D., MSU Class of 2011,
NSF CI TraCS Postdoctoral Fellowship for Transformative Science using CyberInfrastructure

I wanted a flexible graduate program that would allow me to explore coursework in other departments. With my adviser’s encouragement, I took a class in geo statistics that improved my research skills, and I took a journalism class to learn how to communicate important scientific concepts in ways that people without technical backgrounds can understand.

HASSAN ABBAS,
Doctoral Student, Civil Engineering

MSU really stresses collaboration. In my interdisciplinary class this year, we have worked on projects to develop ways to work together and improve technology. The experience was challenging, but very rewarding.

ALOK WATVE
Doctoral Student, Computer Science
Masters and doctoral degrees are available in nine areas:

- Biological Systems Engineering
- Civil Engineering
- Environmental Engineering
- Chemical Engineering
- Materials Science & Engineering
- Computer Science
- Mechanical Engineering
- Engineering Mechanics
- Electrical Engineering

MSU really stresses collaboration. In my graduate classes, the professors encourage us to work together and engage in interdisciplinary research. I really enjoyed the projects I was involved in as a student, and in my housing, academic, and other extracurricular experiences.

ANDREW TEMME, Doctoral Student, Electrical Engineering

In the College of Engineering, we provide many different opportunities for you to grow as a student. Our diverse faculty offers you a wide range of courses in areas like mathematics, engineering, and more.

BEN BECKMANN, Ph.D., MSU Class of 2010, GE Global Research

If you are interested in teaching at the college level (two- or four-year), you can choose to pursue Certification in College Teaching, which includes workshops on teaching and learning, development of a teaching portfolio, and a mentored teaching experience developed with guidance from the only in the College of Engineering.

As a graduate student, I had the opportunity to travel and present my work in Turkey, Italy, Canada, and throughout the USA. The project I worked on was featured in New Scientist magazine.
BIG EXPERIENCE

Customize your engineering graduate degree at MSU! By pursuing a graduate degree in your department and taking graduate-level courses outside your department, you can choose to pursue a concentration in any of the areas below. As a graduate student, you'll have the opportunity to work on research in areas such as health, gender, ethics, humanities, or the social sciences. For more information, visit www.egr.msu.edu/academics/graduate/.

FINANCIAL SUPPORT

All applicants are automatically considered for fellowships, scholarships, and assistantships (teaching and research). Please indicate your interest in assistantships when you apply. For more information, contact the Graduate School at grad.msu.edu or call (517) 432-1064.

For more information, visit www.egr.msu.edu/academics/graduate/.
BIG IMPACT
Engineering and science collaboration with faculty and researchers in areas such as artificial intelligence, quantum computing, energy, environment, health sciences, materials, and sustainability challenges: clean energy, sustainability, health, security.

MSU is home to some of the nation’s best companies, government agencies, and global universities. MSU is a leader in industry and world-class research. MSU’s graduate engineering programs are consistently ranked among the top 20 universities in the nation.

BIG RESULTS
With 800 full-time faculty members in the College of Engineering and 5,000 faculty and academic staff on campus, Michigan State offers you a bigger group of mentors.

Seattle Times Top 10
One day, you might work with tech companies; the next, you might work on a proposal for an applied research project. Our students publish their research in a variety of journals, conduct industry projects, and win major awards, such as NSF Graduate and Postdoctoral Fellowships.

BIG FUTURE
At MSU, you can customize your education with teaching, research, or industry experiences.

With over 1,000 full-time faculty members and 5,000 faculty and academic staff on campus, MSU offers you a bigger group of mentors. Our graduate students regularly publish their research, participate in conferences, and win major awards, such as NSF Graduate and Postdoctoral Fellowships.

BIG COMMUNITY
With over 10,000 graduate and professional students, MSU is big enough for every interest. See a Broadway show, learn to scuba dive, or cheer the Spartans as they compete for a national championship! Kiplinger.com named Lansing as one of the top 10 cities for young professionals, with great entertainment, a low cost of living, and high paying jobs—and The Scientist has consistently ranked MSU as one of the best places to work in academia.

BIG OPPORTUNITIES
Masters and Doctoral degrees are available in 20+ areas.

Masters
> Biomedical Engineering
> Civil Engineering
> Environmental Engineering
> Chemical Engineering
> Materials Science & Engineering
> Computer Science
> Mechanical Engineering
> Engineering Mechanics
> Electrical Engineering

Doctoral
> Biomedical Engineering
> Civil Engineering
> Environmental Engineering
> Chemical Engineering
> Materials Science & Engineering
> Computer Science
> Mechanical Engineering
> Engineering Mechanics
> Electrical Engineering

I wanted a flexible graduate program that would allow me to explore coursework in other departments. With my advisor's encouragement, I took a class in geo statistics that improved my research skills, and I took a journalism class to learn how to communicate important scientific concepts in ways that people without technical backgrounds can understand.

HASSAN ABBAS,
Doctoral Student, Civil Engineering

I wanted to gain some work experience while going to graduate school, and my faculty mentor helped me get an internship at Amazon. The experience was invaluable. This summer, I joined a team developing software for a major customer.

ALOK WATVE,
Doctoral Student, Computer Science

I think the most fascinating questions are at the interface between disciplines. At MSU you have access to faculty and courses in many departments. There is tremendous opportunity and support for collaborative interdisciplinary work.

HEATHER GOLDSBY,
Ph.D., MSU Class of 2011,
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