

BAGLEY COLLEGE OF ENGINEERING

McCain Hall
P.O. Box 9544
Mississippi State, MS 39762



@msuengineering

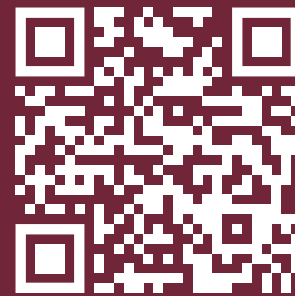
admit@bagley.msstate.edu

Admissions: admissions.msstate.edu

Application: apply.msstate.edu

Visit: campusvisit.msstate.edu

Scholarships: scholarships.msstate.edu



Southeastern Conference Member Institution

Mississippi State University is an equal opportunity institution. Discrimination in university employment, programs or activities based on race, color, ethnicity, sex, pregnancy, religion, national origin, disability, age, sexual orientation, gender identity, genetic information, status as a U.S. veteran, or any other status protected by applicable law is prohibited. Questions about equal opportunity programs or compliance should be directed to the Office of Compliance and Integrity, 56 Morgan Street, P.O. 6044, Mississippi State, MS 39762, (662) 325-5839.



MISSISSIPPI STATE UNIVERSITY™
— JAMES WORTH —
BAGLEY
COLLEGE OF ENGINEERING
BAGLEY.MSSTATE.EDU



MISSISSIPPI STATE UNIVERSITY™

— JAMES WORTH —

BAGLEY
COLLEGE OF ENGINEERING

BAGLEY.MSSTATE.EDU

BCOE DEGREES

* also available online

Bachelor's

Aerospace Engineering
 Aeronautics
 Astronautics
 Biomedical Engineering
 Biosystems Engineering
 Chemical Engineering
 Biomolecular
 Chemical Engineering Practice
 Chemical Engineering R&D
 Civil Engineering
 Environmental Engineering
 Computer Engineering
 Computer Science
 Cybersecurity
 Electrical Engineering*
 Industrial Engineering*
 Mechanical Engineering
 Petroleum Engineering
 Software Engineering

Doctoral

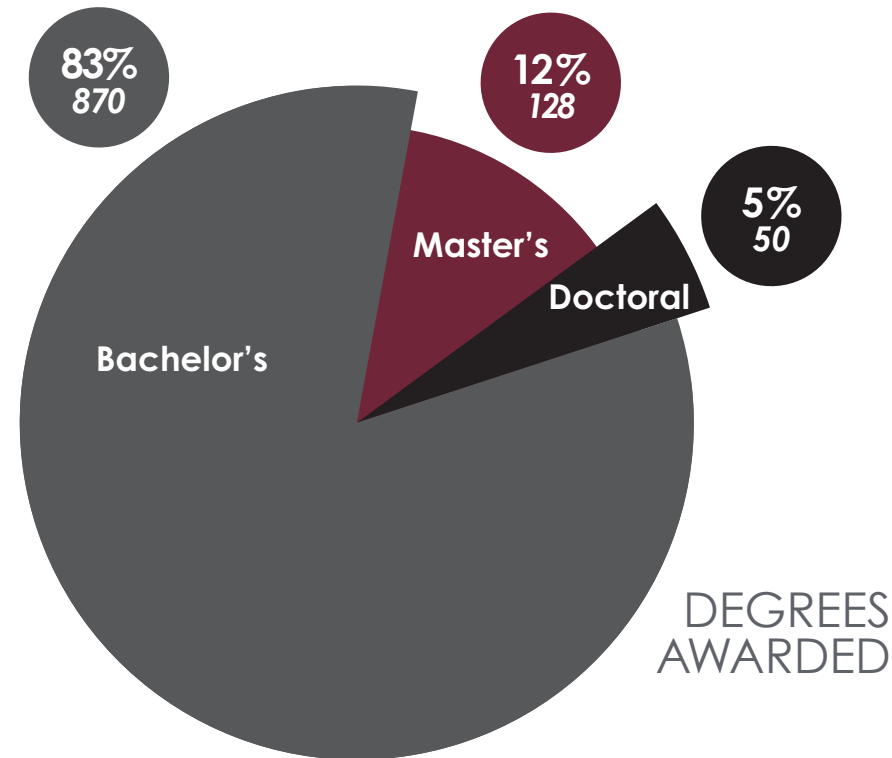
Aerospace Engineering*
 Applied Physics
 Biomedical Engineering
 Biosystems Engineering
 Chemical Engineering*
 Civil Engineering*
 Computational Engineering*
 Computer Science*
 Electrical & Computer Engineering*
 Engineering Education*
 Industrial & Systems Engineering*
 Mechanical Engineering*

Typical Minors

Business/Entrepreneurship
 Computer Science
 Electrical Engineering
 Global Engineering Leadership
 Industrial Engineering
 Leadership Studies
 Mathematics
 Software Engineering

Master's

Aerospace Engineering*
 Biomedical Engineering
 Biosystems Engineering
 Chemical Engineering*
 Civil Engineering*
 Computational Engineering*
 Computer Science*
 Cyber Security & Operations*
 Data Science*
 Electrical & Computer Engineering*
 Industrial Engineering*
 Master of Engineering*
 Military Engineering*
 Mechanical Engineering*



Endorsements (Undergrad)

Automotive Engineering
 Computational Biology
 Energy
 Entrepreneurship
 Information Assurance
 Materials

Certificates (Grad)

Athlete Engineering
 Automotive Engineering
 Computational Biology
 Cyber Operations
 Energy
 Entrepreneurship
 Information Assurance
 Materials

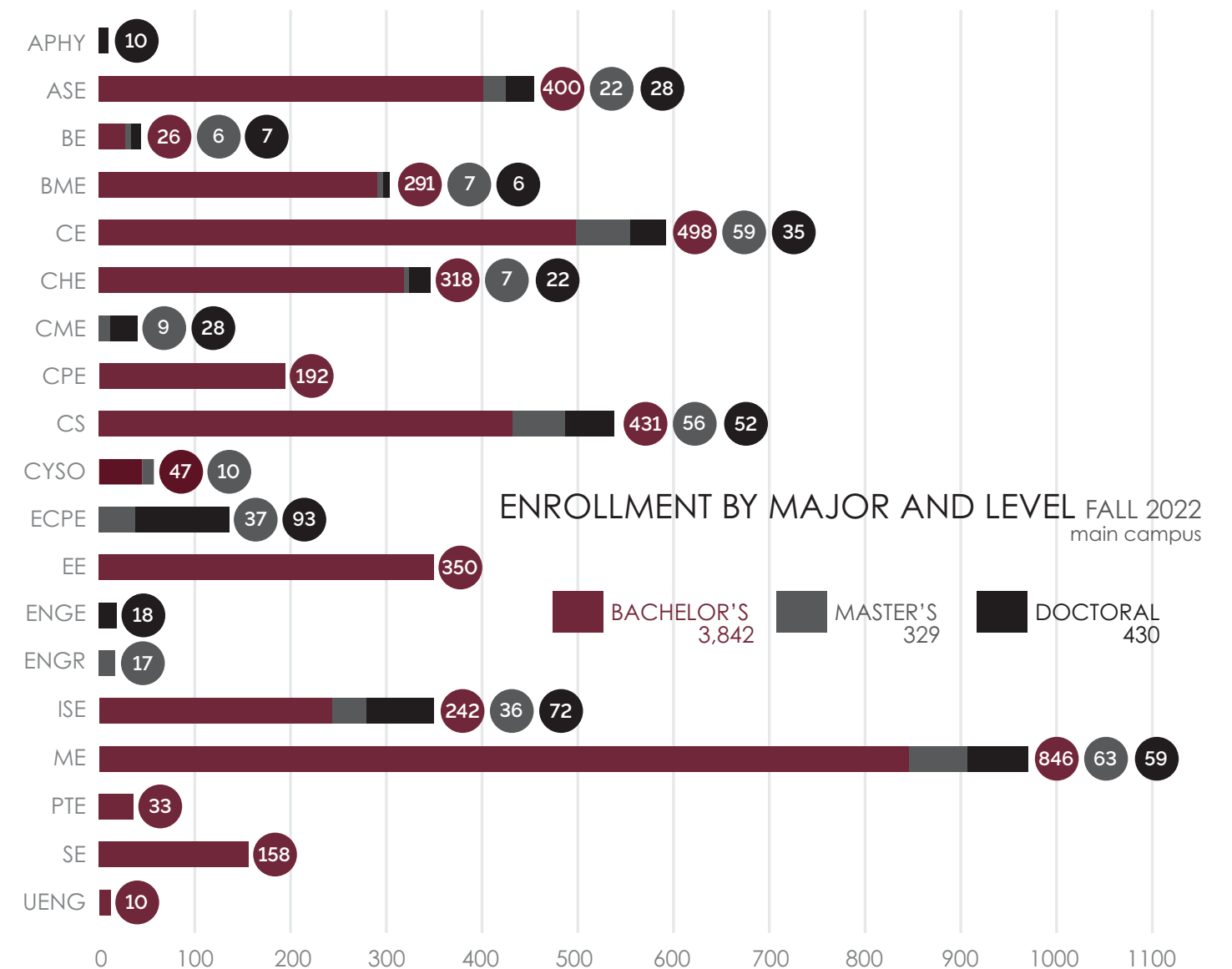
THRIVE IN FIVE: B.S./M.S. COMBINED DEGREE

Aerospace Engineering
 Biomedical Engineering
 Biosystems Engineering
 Chemical Engineering
 Computer Science Engineering
 Cyber Security and Operations

Electrical & Computer Engineering
 Industrial & Systems Engineering
 B.S. / M.S.
 B.S. / M.B.A.
 Mechanical Engineering
 Master of Engineering

Challenge yourself academically by participating in MSU's Thrive in 5 program. These accelerated programs allow qualified students to earn a bachelor's degree and a master's degree in five years. By taking advantage of the programs, graduates enter the workforce more experienced and with more degrees than a typical new graduate. Students must apply and be admitted to an accelerated program before enrolling in graduate-level classes. In general, at the time a student applies to an accelerated program, the student must:

- Be enrolled at Mississippi State University in a BCoE undergraduate degree program
- Have completed a minimum of 60 credit hours towards a bachelor's (may vary by program)
- Have an overall GPA of 3.5 or higher for all undergraduate work





AEROSPACE ENGINEERING

B.S. AEROSPACE ENGINEERING

AERONAUTICS

ASTRONAUTICS

M.S. AEROSPACE ENGINEERING*

PH.D. AEROSPACE ENGINEERING*

Aerospace professionals can design better aircraft, send a spacecraft to Mars, or design a satellite to predict the weather. As an aerospace engineering major, your expertise will lie in designing, developing, testing and producing aircraft systems that fly within the Earth's atmosphere (aeronautics) and spacecraft, missiles and rocket propulsion systems operating beyond the Earth's atmosphere (astronautics). But it's so much more than rocket science. They also may study wind stress on new buildings, eliminate energy waste in skyscrapers or aid in artificial heart research.

AE.MSSTATE.EDU

* also available online

AGRICULTURAL & BIOLOGICAL ENGINEERING

B.S. BIOMEDICAL ENGINEERING

B.S. BIOSYSTEMS ENGINEERING

M.S. BIOMEDICAL ENGINEERING

M.S. BIOSYSTEMS ENGINEERING

PH.D. BIOMEDICAL ENGINEERING

PH.D. BIOSYSTEMS ENGINEERING

Are you ready to be a force for positive change? The agriculture and biological engineering program is your gateway to a fulfilling career that improves lives around the globe. Biosystems engineering offers the same foundations as other engineering disciplines, plus additional knowledge in chemistry, biological sciences, biochemistry and microbiology. Biomedical engineering combines engineering principles and biomedical sciences to solve problems that deal with the human body and health.

ABE.MSSTATE.EDU



DAVE C. SWALM SCHOOL OF CHEMICAL ENGINEERING

B.S. CHEMICAL ENGINEERING

CHEMICAL ENGINEERING PRACTICE

CHEMICAL ENGINEERING RESEARCH/DEVELOPMENT

BIOMOLECULAR

B.S. PETROLEUM ENGINEERING

M.S. CHEMICAL ENGINEERING*

PH.D. CHEMICAL ENGINEERING*

As a chemical or petroleum engineering major, you'll put theories into practice as you learn to apply chemistry and math to make processes and products that improve all aspects of life, including pharmaceuticals, artificial kidneys, solar panels, clean water and biocompatible polymers. Petroleum engineering prepares students for oil and gas industry careers, specifically reservoir engineering.

CHE.MSSTATE.EDU

* also available online

RICHARD A. RULA SCHOOL OF CIVIL & ENVIRONMENTAL ENGINEERING

B.S. CIVIL ENGINEERING

ENVIRONMENTAL ENGINEERING

M.S. CIVIL ENGINEERING*

PH.D. CIVIL ENGINEERING*

Civil and environmental engineers are making a difference in the quality of everyday life. Civil and environmental engineering deals with many aspects of society, including water resources, environmental sanitation, intermodal transportation, structures and many other parts of the infrastructure of modern life. Whether it's creating systems that provide clean drinking water or designing the structures essential to our society, our civil and environmental engineering majors graduate prepared to impact the world around them and beyond.

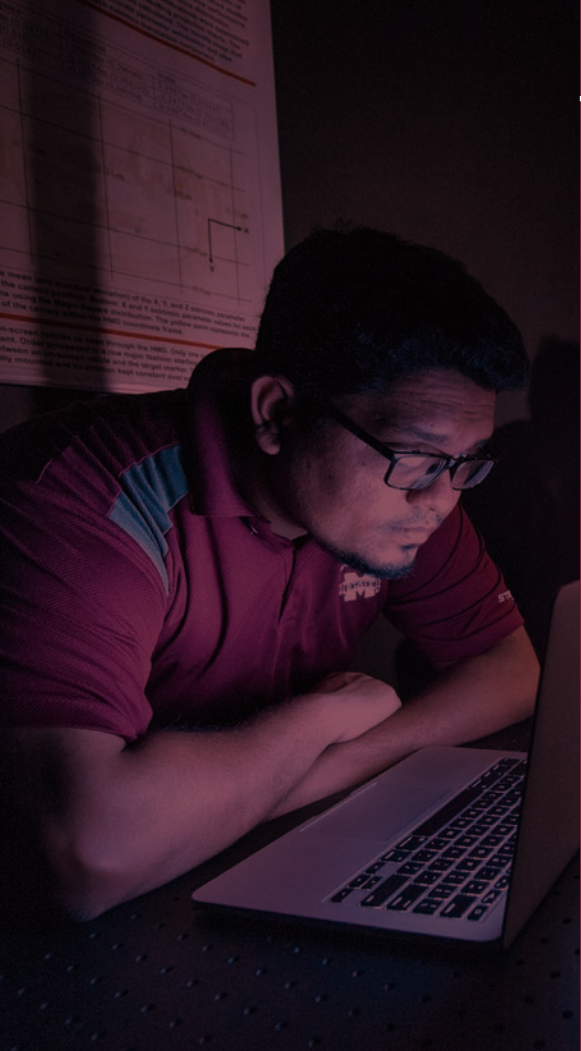
CEE.MSSTATE.EDU

* also available online



BAGLEY.MSSTATE.EDU

[BAGLEY COLLEGE OF ENGINEERING](http://BAGLEY.MSSTATE.EDU)



COMPUTER SCIENCE & ENGINEERING

- B.S. COMPUTER SCIENCE
- B.S. CYBERSECURITY
- B.S. SOFTWARE ENGINEERING
- M.S. COMPUTER SCIENCE*
- M.S. CYBER SECURITY & OPERATIONS*
- M.S. DATA SCIENCE*
- PH.D. COMPUTER SCIENCE*

In CSE, we don't just dream about a world powered by technology – we make it a reality. From virtual reality to artificial intelligence to cybersecurity, our students gain expertise in the most sought-after fields of technology. Our computer science students graduate prepared for a wide range of careers, and our software engineers fill the huge demand for those who can design and build reliable software systems. Our cybersecurity graduates stand at the front lines, prepared to meet the challenges of cyber threats.

CSE.MSSTATE.EDU

* also available online

ELECTRICAL & COMPUTER ENGINEERING

- B.S. ELECTRICAL ENGINEERING*
- B.S. COMPUTER ENGINEERING
- M.S. ELECTRICAL & COMPUTER ENGINEERING*
- PH.D. ELECTRICAL & COMPUTER ENGINEERING*

Are you ready to make a lasting impact? Our world-class faculty equips you with the skills and knowledge necessary to thrive in a rapidly evolving world. As an electrical engineer major, your comprehensive curriculum blends theory and hands-on experience, empowering you to design, construct, develop and implement groundbreaking solutions to maintain electrical products, services, devices and information systems. As a computer engineering major, you will gain first-hand experience creating intelligent systems characterized by the application of embedded digital processing technology.

ECE.MSSTATE.EDU

* also available online



INDUSTRIAL & SYSTEMS ENGINEERING

- B.S. INDUSTRIAL ENGINEERING*
- B.S. IE/B.B.A. BUSINESS ADMINISTRATION
- M.S. INDUSTRIAL ENGINEERING*
- PH.D. INDUSTRIAL & SYSTEMS ENGINEERING*

Are you interested in the “big picture” of engineering? If you are, you'll find your place in the Department of Industrial and Systems Engineering. Industrial and systems engineering involves designing, improving and installing integrated systems of people, materials, information, equipment and energy. Tasked with improving the performance and safety of processes, industrial and systems engineers identify and eliminate wastes of time, money, materials and energy. With a 100% successful career outcome, our professors are teaching the future's industry leaders.

ISE.MSSTATE.EDU

* also available online

MECHANICAL ENGINEERING

- B.S. MECHANICAL ENGINEERING
- M.S. MECHANICAL ENGINEERING*
- PH.D. MECHANICAL ENGINEERING*

The Department of Mechanical Engineering is where future engineers can chase their curiosity. Mechanical engineers work in virtually every industry, and as a mechanical engineering major, you will have the opportunity to work collaboratively with your professors and peers while researching some of today's most unique engineering challenges. By building expertise in science and mathematics, students will learn to design, develop and operate mechanical and energy systems and graduate prepared to create complex design processes that will make them highly sought-after candidates in their field.

ME.MSSTATE.EDU

* also available online





over 35
engineering
organizations

ORGANIZATIONS & TEAMS

Find your place within the Bagley College of Engineering's numerous student organizations and teams. These are a vital part of an engineering student's education and provide opportunities to enhance their education and prepare themselves for the engineering profession. By participating in student organizations, students can network with professionals in their field, which can aid in finding a job after graduation. They also allow students to get to know their peers and the faculty within their majors. Spanning all engineering concentrations, these organizations and teams help students develop teambuilding skills and give them a better understanding of each discipline.

Build leadership skills by joining a professional society or service organization. The BCoE has over 35 organizations, including the Society of Women Engineers, the National Society of Black Engineers, the Tau Beta Pi National Engineering Honor Society, the Society of Hispanic Professional Engineers, Engineering Ambassadors and Engineers Without Borders.

Participate in competition teams and events, like the Space Cowboys rocket team, EcoCar Mobility Challenge, ASCE Concrete Canoe Competition or the Xipiter Unmanned Aircraft Systems team.

BAGLEY.MSSTATE.EDU/STUDENTORG

ENGINEERING ON THE COAST

Earn your undergraduate degree closer to home by participating in the Bagley College of Engineering's Engineering on the Coast (EoC) program. Future engineers living in south Mississippi, south Alabama and Louisiana now have an affordable option for earning a world-renowned education close to home. The BCoE currently offers three Bachelor of Science degrees in Gautier, Mississippi.

Students may complete up to 64 hours of coursework at any community college or other institution of their choice before enrolling in the electrical, mechanical or industrial and systems engineering programs in the Engineering on the Coast program at MSU. Completion of the EoC program results in a Bachelor of Science degree from Mississippi State University.

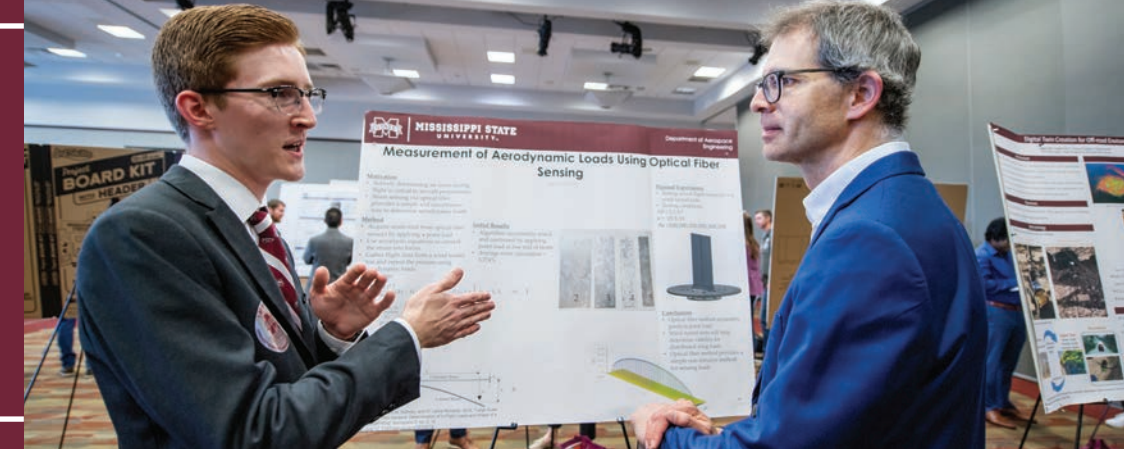
BAGLEY.MSSTATE.EDU/COAST

RESEARCH

Make your impact by conducting groundbreaking research. As a BCoE student, you will work alongside your professors as they look to the future, discovering solutions to the world's most urgent problems. Interested in preventing traumatic brain injuries? Creating autonomous systems? Dream of designing groundbreaking machinery? The college has facilities to conduct a wide variety of design, analysis and testing. It works with a wide variety of MSU centers, such as the Center for Advanced Vehicular Systems (CAVS), the High Performance Computing Collaboratory (HPC2) and many others.



\$61.4M in
external research
expenditures



BAGLEY.MSSTATE.EDU/RESEARCH

STUDY ABROAD

Broaden your perspective, enhance your resume and gain international experience that will help you better prepare for a global workplace. With today's integrated global economy, engineers must understand other cultures and ways of doing business by being a part of collaborations that span the globe. By collaborating with other universities through the Global Engineering Education Exchange (GE3), the BCoE provides students and faculty with opportunities to gain international experience that will prepare them for their future careers.



students can study
at 43 universities
in 23 countries

BAGLEY.MSSTATE.EDU/STUDYABROAD

DIVERSITY & INCLUSION PROGRAMS

The Bagley College of Engineering is proud of its top 15 national ranking for graduating underrepresented engineers. Our focus on diversity and inclusiveness, combined with academic excellence and numerous active student groups, provide opportunities for connection, support and growth as students train for successful engineering and computer science careers.

The **National Society of Black Engineers**, NSBE, encourages academic excellence, professional success and community involvement and strives to increase the number of black leaders in engineering.

The **Society of Women in Engineering**, SWE, is dedicated to changing the face of engineering and helping female engineers succeed in a professional and personal capacity.

The **Society of Hispanic Professional Engineering**, SHPE, strives to enhance the potential of Hispanics in engineering, math and science.

Increasing Minority Access to Graduate Education, IMAGE, provides a chance for early exposure to scientific study and research. IMAGE strives to provide a sense of community for underrepresented students and to develop connections between upper and lower classmen.

The **Chevron Engineering Transfer Program** is a week-long program to provide support to transfer students. Our goal is to ease the transition from community college to a four-year institution and help student performance.

The **Summer Bridge** program is a month-long residential experience to help incoming freshmen adjust to university life and engineering courses while building lasting friendships.

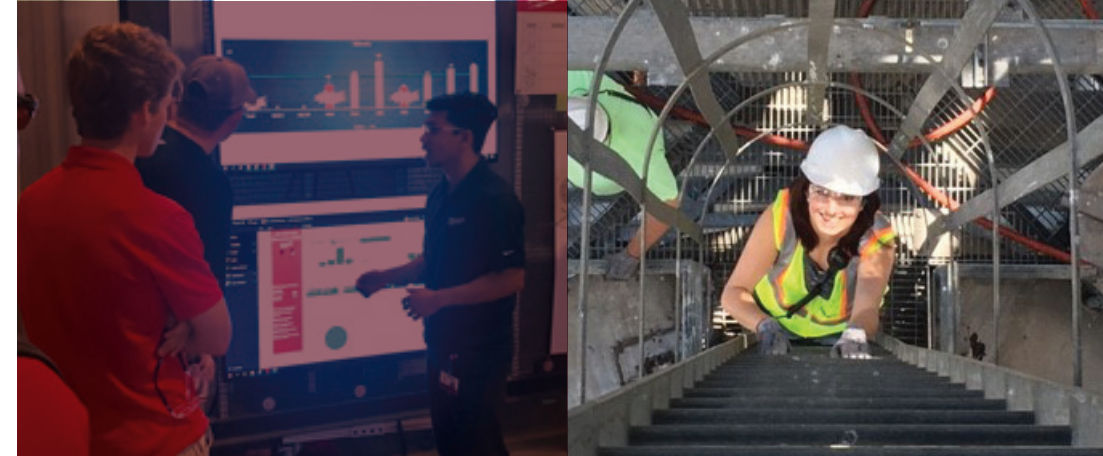
I Am Girl is designed to create an interest in engineering and science related fields for girls ages 11-14 years old, help mold positive mindsets toward engineering and science-related careers, show that engineering and science can be fun and creative and demonstrate the role of science and engineering in shaping the global economy.



[DIVERSITY.BAGLEY.MSSTATE.EDU](https://diversity.bagley.msstate.edu)

CO-OP & INTERNSHIPS

We understand the importance of industry connections and practical experience. This is why we encourage all engineering students to participate in MSU's Cooperative Education Program. Cooperative education is a unique academic program that allows students to obtain valuable work experience in their field of study while still in school. The program allows you to work alongside seasoned professionals, gain industry experience and build a valuable network that will help launch your career while earning money at the same time.



250+ engineering companies recruit BCoE grads

[CAREER.MSSTATE.EDU/CO-OPS-INTERNSHIPS](https://career.msstate.edu/co-ops-internships)

JOB OPPORTUNITIES

BCoE graduates go on to work for many of the world's top companies.

- Arkansas Department of Transportation
- Atmos Energy
- Brasfield & Gorrie
- C Spire
- Camgian Microsystems
- Chevron
- Dow
- Dynamic Concepts, Inc
- Dynetics
- Entergy
- ERC, Inc
- Ergon
- ExxonMobil
- FedEx
- General Electric
- Georgia-Pacific
- Huntington-Ingalls
- International Paper
- J.B. Hunt
- KBR, Inc.
- L3Harris
- Lockheed Martin
- Mississippi State University
- MS Department of Environmental Quality
- MS Department of Transportation
- Nissan
- Northrop Grumman
- PACCAR
- Packaging Corporation of America
- Pepsico
- Raytheon
- Southern Company
- Steel Dynamics
- Taylor Machine Works
- Tronox
- Trustmark
- U.S. Air Force
- U.S. Army Corps of Engineers

Be You
@ BAGLEY