Greater Hattiesburg is home to a vibrant culture, diverse economy, high quality of life and a world of opportunity. Covering a tri-county area in South Mississippi, the Hattiesburg MSA encompasses Forrest, Lamar and Perry Counties, with a population of nearly 150,000. Nicknamed the Hub City, Hattiesburg is centrally located between Jackson, MS, Gulfport/Biloxi, MS, New Orleans, LA and Mobile, AL, offering a mix of big city advantages and small town charm while in close proximity to three Class I railroads, five Gulf of Mexico Ports, four international airports and three ground transportation corridors. Greater Hattiesburg’s economy stands strong on three pillars – Education, Healthcare and Military. With these strong economic assets, the Hub City has become a stable home to families, college students and retirees. While the strength in education fuels the region’s workforce, the thriving healthcare sector is a cornerstone of the local economy and a major value to the region. Greater Hattiesburg is a leading community in Mississippi and one of the most vibrant regions in the Gulf South.
The School of Polymers and High Performance Materials is a cross-discipline mix of researchers from chemistry, physics, chemical engineering and biochemistry. Southern Miss researchers are developing new composite materials that are akin to the Olympic creed of “faster, higher, stronger.” The composites will be used to build stronger, more durable materials for applications in areas such as next-generation marine and aerospace vehicles. These lightweight, high-performance composite parts are utilized in GE Aviation’s GEnx engine on Boeing 787 and 747-8 aircrafts. A $2.4 million grant from the Mississippi Development Authority is funding the Southern Miss-GE collaboration.
Known as The Garden, the university’s 521-acre innovation and commercialization park is where the university’s cutting-edge research is transformed into valued products and services for the marketplace. It is also home to:

- the Mississippi Polymer Institute which is the industrial outreach arm of the School of Polymers and High Performance Materials (page 5)
- the National Formulation Science Laboratory, which houses laboratory space, a business incubator known as The Accelerator and other facilities (page 6)
Serving as the industrial outreach arm of the School of Polymers and High Performance Materials at The University of Southern Mississippi, Mississippi Polymer Institute (MPI) has played a key role in growing the state’s multibillion-dollar-per-year, high-tech polymer industry, and has directly assisted in the creation of thousands of jobs. While the primary focus is supporting growth of high-tech businesses within Mississippi, MPI performs contracted work for companies worldwide.

**Boeing**

Boeing is the world’s largest aerospace company and leading manufacturer of commercial jetliners and defense, space and security systems. As a technology incubator for Boeing, Southern Miss has a master agreement with the aviation giant to accelerate research and development of next generation materials, including polymers and polymer matrix composites. The agreement builds on a decade-long working relationship between USM and Boeing, which currently has a research contract to utilize the assets of the Accelerator - the University’s business incubator. Additionally, Boeing has recognized the University’s scientific contributions by presenting Southern Miss with the prestigious Silver Level Supplier of the Year Award in consecutive years (2013, 2014).

**GE Aviation**

GE Aviation is a world-leading provider of commercial, military and business and general aviation jet and turboprop engines as well as avionics, electrical power and mechanical systems for aircraft. GE Aviation partnered with MPI to train the local workforce for a new 340,000 sq. ft. facility here in the region. MPI’s Workforce Development and Technical Team, led the effort to create three composite training courses (Introduction to Composites, Composites Structures, and Lean Composites) for GE Aviation’s pre-employment and post-hiring needs. The Introduction to Composites course is part of JCJC’s Advanced Manufacturing Skills Certification, which includes training in business, lean manufacturing, safety, basic math, blueprint reading, and team training. The Introduction to Composites course is designed specifically for GE Aviation and their specific manufacturing process. The program and collaboration have been so successful that GE Aviation and MPI are currently partnering to develop a new composites course in resin transfer molding for future training.

**Rawlings**

The School of Polymers and High Performance Materials led the development that of a new football helmet now being used by hundreds of professional and collegiate athletes across the nation including two dozen players in the 2014 Super Bowl. The technology used in this helmet aids in minimizing the risk of injury to players by replacing traditional foam material with temperature-resistant cushioning materials. Now the School of Polymers and High Performance Materials team is testing this new technology developed for the playing field to improve helmets used on the battlefield with the goal of enhancing protection for the soldiers that defend our nation.
The mission of USM’s Accelerator is to drive economic development through technology innovation and commercialization. The Accelerator serves business as an innovation center for accelerated technologies development, scale-up, market validation, manufacturing and commercialization—all under the same roof. By fostering entrepreneurship and job creation through the acceleration of new business formation, growth and viability the Accelerator at Southern Miss is truly a one of a kind technology centered business incubator.

Cultivating ideas from mind to molecules to market and specialized for innovation in composites, polymers, formulation science, biotechnology, sustainable chemistry, alternative energy and more.

The Accelerator, in partnership with MPI, is the only technology incubator that offers the infrastructure and capabilities to develop a new advanced material technology under one roof. A novel concept can be invented, tested, manufactured and actually shipped from the facility’s doors to the customer.
PARTNERSHIP IN INNOVATION

Since its founding in 1998, Emergent’s history has been one of innovation and growth focused on a singular mission—to protect and enhance life. From its beginnings as a private company with a single location in Lansing, Michigan, Emergent has grown into a thriving public company with sites around the world. As a global specialty pharmaceutical company, Emergent offers specialized products to healthcare providers and governments to address medical needs and emerging health threats.

Headquarters: Gaithersburg, MD
Manufacturing Facilities: United States, Canada
Product Development Sites: United States, Canada, Germany
DIVERSE EMPLOYMENT BASE
GREEN ENERGY

The future of solar energy in Mississippi is undoubtedly bright. In the last six months, Greater Hattiesburg has seen over $300 million of investment announced through the proposed development of three solar farm projects. Origis Energy, a Belgium based company, has entered into a power-purchase agreement with both Mississippi Power (MPC) and South Mississippi Electric Power Association (SMEPA) in the production of two separate farms in Lamar County that combined will generate 104 megawatts of green energy. In addition, Silicon Ranch, based out of Tennessee, has also entered into a power-purchase agreement with MPC for their solar development in the City of Hattiesburg and Forrest County that will generate 50 megawatts of clean energy.

Altogether, over 150 MW of clean, solar energy will be online by the end of 2016, making Greater Hattiesburg the Solar Hub of the South.
HIGH TECH INDUSTRIES

HYBRID PLASTICS
As a relocation from Southern California, Hybrid Plastics operates as both research and development catalyst, chemical manufacturer and nanotechnology company. Hybrid created and manufactures various forms of Polyhedral Oligomeric Silsesquioxane, known simply as POSS. Its unique blend of organic and inorganic materials allow melding of the best properties of different materials, which until POSS, was not possible.

STION
Stion, headquartered in Silicon Valley, opened it’s 1st Manufacturing Plant in Hattiesburg, MS and is a leading manufacturer of high-efficiency thin-film solar modules based on state-of-the-art materials, device technology and proven production processes.

ZEON CHEMICALS
Zeon Chemicals, with three plant locations including a specialized elastomer plant in Hattiesburg, MS, is the leading developer and supplier of innovative polymers, including synthetic elastomers and specialty chemicals.

WIS-PAK
Wis-Pak, Inc., headquartered in Watertown, WI, has eight manufacturing plants located throughout the United States. Only two of which are located in the Southeast Region, including one plant in Hattiesburg, MS. Wis-Pak Inc. in Hattiesburg currently manufactures Pepsi Cola and other leading soft drinks and is currently in the process of a $5.3M expansion to begin blow molding soft drink bottles locally.

WESTERN CONTAINER
Headquartered in Sugarland, TX, Western Container Corporation is a high performance company dedicated to being the premier manufacturer of PET containers for the Coca-Cola Bottling System. The company was established in 1979 by a group of Coca-Cola Bottlers who acted on the long-term need to offer a central distribution point and a reliable source of high quality low-cost plastic bottles. With five manufacturing plants throughout the United States, Hattiesburg, MS is the only plant located east of the Mississippi River.
Basic Manufacturing Certificate

- OSHA 10 hr. certification
- CPR/First Aid certification
- Manufacturing math
- Measurements and GD&T
- MSDS and PPE
- Electrical safety
- Print reading and specifications

Industry Visits

5 Week Intensive Training

Qualified Operator

- Lean manufacturing
- 5S methodology
- Basic SPC and control charting
- Single minute exchange of dies (SMED)
- Problem solving and teamwork
- Time-clock attendance
- Proven self-initiative

Silver or Gold CRC

Employer Customized Training

Advanced Manufacturing Certificate Programs

Technician Pathway Diploma Programs

Manufacturing Operations Workforce