

BUILDING YOUR FUTURE TOGETHER



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energy





Mississippi Gulf Coast Community College is a comprehensive community college offering the following programs of study:

1. Occupational programs in business, professional, career and technical areas to prepare persons for employment or advancement within respective fields.
2. Enrichment and/or technical courses given on a non-credit basis to enable an adult student to become more effective in use of leisure time or to increase occupational efficiency.

After reviewing the section of suggested studies, students should discuss their choices with a counselor/advisor that will assist in scheduling courses. Final responsibility for this rests with the student.

Career and Technical Education Programs are designed to meet the educational needs of students who are seeking preparation for employment in occupational fields not requiring the four-year college/university baccalaureate degree. Technical programs require a minimum of four semesters for completion and lead to the Associate of Applied Science degree. Career programs vary in length from eight weeks to one-year and lead to MGCCC diplomas. Students completing some Career programs may elect to pursue the Associate of Applied Science in Occupational Education degree.

APPRENTICE ELECTRIC LINEMAN

George County Center

WHAT THEY DO

Electric Linemen install or repair electrical power systems and telecommunications cables, including fiber optics.*

PAY

In 2016, median pay was \$62,650 per year.*

NUMBER OF JOBS

In 2014, there were 236,600 jobs in the United States.*

Students will receive specialized instruction in certification areas required by the power industry.

Students should contact the George County Center Counselor by June 1 for August admission.

Applicants must meet general admission requirements as well as the following special requirements:

- 18 years of age by December 1 for Fall semester classes
- high school diploma or GED
- valid Mississippi driver's license
- motor vehicle report with good driving record (for CDL)
- DOT physical with a substance test
- enjoy outdoor work
- physically able to climb
- COMPASS assessment with Pre-Algebra score of 34 or Algebra score of 21, Reading score of 74, Writing score of 60, or Enhanced ACT English, Reading, and Math minimum of 16
- Obtain a written permit for a Class A Mississippi Commercial Driver's License (CDL) from a Department of Public Safety (DPS) office that offers CDL. The application cost is \$26 and the license fee is \$13. A CDL manual that you can study before taking this written test is available at www.dps.state.ms.us or you can purchase a manual for \$2 from a DPS office

The Apprentice Electric Lineman program of study is a one semester 600 hour program designed to prepare students to become entry level workers for the electrical power transmission and distribution industry. The curriculum focuses on basic safety, basic electricity, pole climbing and bucket truck operation, along with other basic skills needed for entry level work in the utilities field.

All students completing a career and technical program must complete either the MS-CPAS (Mississippi Career Planning and Assessment System) or a MGCCC Board approved Technical Attainment Assessment where applicable. See your advisor for further details.

CAREER CERTIFICATE: MAJOR UNITS OF INSTRUCTION

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
AEL 1118 - Electric Lineman I 300 clock hours	8			
AEL 1128 - Electric Lineman II 300 clock hours	8			
Total Clock Hours: 600				

SKILLS TAUGHT WILL INCLUDE THE FOLLOWING:

Basic Skills

Basic Computer Applications Basic Electricity, Codes, etc. Basic Electricity I Basic Electricity II Interpersonal Skills National Electric Code Course National Electric Safety Code Course RUS Specifications (Overhead and Underground) Mississippi Class A Commercial Driver's License

OSHA

CPR, First Aid, and Blood borne Pathogens Hazardous Material Training and Material Safety Data Sheets Job Site Safety (Confined Space, Shoring, etc.) Personal Protective Equipment Rigging

Power Company Specific

Pole Climbing Pole Top Rescue Bucket Truck System Protection and Operation Basic Transformer Change Out from Pole

A.A.S.O.E. Degree

Not applicable for Apprentice Electric Lineman

PROCESS OPERATIONS TECHNOLOGY

Jackson County Campus

WHAT THEY DO

Operators control the systems that produce petroleum products such as gasoline, jet fuel, and propane.

PAY

In 2015, median pay was \$65,190 per year.

NUMBER OF JOBS

In 2014, there were 42,400 jobs in the United States.

The Process Operations Technology program is designed to prepare technicians for employment in the diverse field of process operations in petroleum refineries, power generation facilities, pharmaceutical plants, chemical plants, waste water treatment plants, food and beverage process plants, offshore oil production facilities, and a host of other industries. Individuals currently employed as process operations technicians will enhance their ability to perform their duties and increase opportunities to advance.

Graduates of this program are prepared for entry-level positions at any processing facility. They will have acquired the basic technical skills in equipment and systems and have a broadened vocabulary to make the job-specific learning less difficult. Graduates will also have the team-building skills, safety awareness, environmental awareness, communication skills and computer skills vital to performing well in industry today. A working knowledge of state and federal regulations on safety and the environment is provided. Through an internship program, most students will have the opportunity to work in a position related to process technology where they will receive work-related application of their classroom training.

This program leads to an Associate in Applied Science Degree and is preparatory for employment upon graduation from MGCCC. Where a transfer to a senior college or university is desired, a conference should be scheduled with a community college counselor for advisement.

All students completing a career or technical program must complete either the MS-CPAS (Mississippi Career Planning and Assessment System) or an MGCCC Board-approved Technical Attainment Assessment where applicable. See your advisor for further details.

PROCESS OPERATIONS CERTIFICATE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
PPT 1133 - Intro to Process Technology	3			
PPT 1424 - Process Equipment	4			
PPT 1713 - Process Instrumentation I	3			
PHY 2244 - Physical Science Survey I	4			
PPT 1513 - Safety Health and Environment	3			
PPT 2313 - Quality Concepts	3			
PPT 1444 - Process Operations	4			
PPT 1613 - Technical Communications	3			
PPT 2113 - Oil and Gas Production I	3			
Total Credits: 30				

PROCESS OPERATIONS DIPLOMA

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
PPT 1433 - Process Systems	3			
PPT 2723 - Process Instrumentation II	3			
PPT 2123 - Oil and Gas Production II	3			
PPT 2323 - Process Troubleshooting	3			
<input type="checkbox"/> Elective*	3			
Total Credits: 15				

ASSOCIATE OF APPLIED SCIENCE DEGREE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
ENG 1113 - English Composition I	3			
SPT 1113 - Public Speaking I	3			
MAT 1313 - College Algebra	3			
<input type="checkbox"/> Social/Behavioral Science* <input type="checkbox"/> Humanities/Fine Arts*	3			
Total Credits: 15				

Note: Articulated credit may be awarded for approved courses. Please refer to "The Credit by Non-Traditional Means" section of this catalog regarding stipulations for receiving articulated credit.

*Any instructor/department chair-approved field-related elective.

INSTRUMENTATION AND CONTROLS TECHNOLOGY

Jackson County Campus

WHAT THEY DO

Help engineers design and develop computers, communications equipment, process monitoring devices, navigational equipment, and other electrical and electronic equipment. They often work in product evaluation and testing, using measuring and diagnostic devices to adjust, test, and repair industrial equipment.*

PAY

In 2016, median pay was \$62,190 per year.*

NUMBER OF JOBS

In 2014, there were 139,400 jobs in the United States.*

This 2-year program is designed to prepare students for a wide range of technical positions within the commercial/industrial manufacturing industry and the utility and petroleum industries. The Instrumentation program is designed to prepare graduates for a career in the installation, maintenance, testing, and repair of industrial electrical and electronic equipment and systems. This program introduces process computers, instrument system communications, smart transmitters, control valves, distributed control systems, process simulations, and computer graphic display interfaces.

Graduates will possess the skills necessary to enter the workforce as technicians in the field of chemical, petrochemical, exploration & production, pulp & paper, power generation, utilities, food & beverage, and water/waste treatment. An Associate of Applied Science Degree is awarded upon successful completion of a minimum of 64 semester credit hours of approved course work.

This program leads to an Associate in Applied Science Degree and is preparatory for employment upon graduation from MGCCC. Where a transfer to a senior college or university is desired, a conference should be scheduled with a community college counselor for advisement.

All students completing a career or technical program must complete either the MSCPAS (Mississippi Career Planning and Assessment System) or an MGCCC Board approved Technical Attainment Assessment where applicable. See your advisor for further details.

INSTRUMENTATION AND CONTROLS TECHNOLOGY CERTIFICATE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
IET 1114 - Industrial Measurement of Pressure and Level	4			
EET 1114 - DC Circuits	4			
PPT 1513 - Safety Health and Environment	3			
IET 1214 - Industrial Measurement of Temperature and Flow	4			
IET 1314 - Industrial Control I	4			
EET 1214 - Digital Electronics	4			
EET 1123 - AC Circuits	3			
IET 2114 - Final Control Elements	4			
Total Credits: 30				

INSTRUMENTATION AND CONTROLS TECHNOLOGY DIPLOMA

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
EET 1334 - Solid State Devices and Circuits	4			
EET 2354 - Solid State Motor Control	4			
EET 2364 - Programmable Logic Con/HMI	4			
IET 2414 - Industrial Control II	4			
Total Credits: 16				

ASSOCIATE OF APPLIED SCIENCE DEGREE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
ENG 1113 - English Composition I	3			
SPT 1113 - Public Speaking I	3			
<input type="checkbox"/> College Algebra <input type="checkbox"/> Social/Behavioral Science <input type="checkbox"/> Humanities/Fine Arts	3			
Total Credits: 15				

Note: Articulated credit may be awarded for approved courses. Please refer to "The Credit by Non-Traditional Means" section of this catalog regarding stipulations for receiving articulated credit.

PRECISION MANUFACTURING & MACHINING TECHNOLOGY

Jackson County Campus

WHAT THEY DO

Assemble both finished products and the parts that go into them. They use tools, machines, and their hands to make engines, computers, aircraft, toys, electronic devices, and more.*

PAY

The average base pay for skilled trades in the central gulf region is \$55,600 per year.**

NUMBER OF JOBS

In 2014, there were 1,834,000 jobs in the United States.*

Precision Manufacturing and Machining Technology is an instructional program that prepares individual to shape metal parts on machines such as lathes, grinders, drill presses, and milling machines. Included is instruction in making computations related to work dimensions, testing, feeds, and speeds of machines; using precision measuring instruments such as layout tools, micrometers, and gauges; machining and heat-treating various metals; and laying out machine parts. Also included is instruction in the operation and maintenance of computerized equipment.

This program may lead to an Associate in Applied Science of Occupational Education Degree and is preparatory for employment upon graduation from MGCCC. Where a transfer to a senior college or university is desired, a conference should be scheduled with a community college counselor for advisement.

All students completing a career or technical program must complete either the MSCPAS (Mississippi Career Planning and Assessment System) or an MGCCC Boardapproved Technical Attainment Assessment where applicable. See your advisor for further details.

PRECISION MANUFACTURING AND MACHINING CERTIFICATE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
MST 1313 - Machine Tool Mathematics	3			
MST 1412 - Blueprint Reading	2			
MST 1212 - Drill Press and Band Saw Operations	2			
MST 1222 - Lathe Turning Knowledge	2			
MST 1232 - Milling Machine Knowledge	2			
MST 1243 - Precision Lathe Operations	3			
MST 1251 - Surface Grinding Operations	1			
MST 1263 - Milling Machine Operations	3			
MST 1613 - Precision Layout	3			
MST 1422 - Advanced Blueprint Reading	2			
MST 2513 - Advanced Lathe Operations	3			
MST 2523 - Advanced Milling Operations	3			
MST 2812 - Metallurgy	2			
Total Credits: 31				

PRECISION MANUFACTURING AND MACHINING DIPLOMA

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
MST 2714 - Computer Numerical Control Operations I	4			
MST 2725 - Computer Numerical Control Operations II	5			
MST 2532 - Precision Grinding Operations	2			
MST 2542 - Gear Types and Manufacturing	2			
MST 2551 - Advanced Machining Technologies	1			
Total Credits: 14				

A.A.S.O.E. DEGREE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
ENG 1113 - English Composition I	3			
SPT 1113 - Public Speaking I	3			
<input type="checkbox"/> Social/Behavioral Science <input type="checkbox"/> Math/Natural Science Credit(s) : 3/4* <input type="checkbox"/> Humanities/Fine Arts	3/4			
Total Credits: 15/16				

Note: Articulated credit may be awarded for approved courses. Please refer to "The Credit by Non-Traditional Means" section of this catalog regarding stipulations for receiving articulated credit.

MECHANICAL MAINTENANCE TECHNOLOGY

Jackson County Campus

WHAT THEY DO

The graduate will be prepared for installation, maintenance, testing, troubleshooting and repair of industrial equipment and systems.

PAY

Entry Level Salaries ranging from \$35,000-\$75,000 per year.

NUMBER OF JOBS

The Mississippi Gulf Coast Community College program will provide industry with skilled technicians that possess the basics needed to become productive employees. Students graduating from the program will fill the positions being left open due to growth in the industry and attrition. Job placement is predicted to be outstanding for Mechanical Maintenance Millwrights for the next 5 to 10 years.

EDUCATION & TRAINING

This program will educate and prepare students with the technical skills required for employment in the field of Mechanical Maintenance Technology (Outside Machinists/Millwrights). The program is designed to prepare students for a wide range of technical positions within the commercial/industrial manufacturing industry, utility and petroleum industries. Graduates will possess the skills necessary to enter the workforce as entry level millwrights. Our graduating students will have the highest regard for personal safety, safety in the workplace, and protecting the environment.

MECHANICAL MAINTENANCE TECHNOLOGY CERTIFICATE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
MEC 1113 - Mechanical Maintenance I	3			
MEC 1115 - Mechanical Maintenance V	5			
MEC 1116 - Mechanical Maintenance II	6			
MEC 1123 - Mechanical Maintenance III	3			
MEC 1133 - Mechanical Maintenance IV	3			
MEC 1227 - Mechanical Maintenance VI	7			
CTE 1143 - NCCER Core	3			
Total Credits: 30				

MECHANICAL MAINTENANCE TECHNOLOGY DIPLOMA

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
Career Technical Elective	15*			
Total Credits: 15				

ASSOCIATE OF APPLIED SCIENCE DEGREE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
ENG 1113 - English Composition I	3			
SPT 1113 - Public Speaking I	3			
<input type="checkbox"/> College Algebra <input type="checkbox"/> Social/Behavioral Science <input type="checkbox"/> Humanities/Fine Arts	3			
Total Credits: 15				

Note: Electives must be approved by instructor/department chair. Articulated credit may be awarded for approved courses. Please refer to "The Credit by Non-Traditional Means" section of this catalog regarding stipulations for receiving articulated credit.

*Any instructor/department chair-approved field-related elective.

WELDING

Jackson County Campus, Perkinston Campus, & George County Center

WHAT THEY DO

Welders weld or join metal parts. They also fill holes, indentions, or seams of metal products, using hand-held welding equipment.*

PAY

Average base pay in the central gulf region is \$62,857 per year.**

NUMBER OF JOBS

In 2014, there were 397,900 jobs in the United States.*

The Welding and Cutting Technology curriculum is designed to prepare the student for entry-level employment in the field of welding and cutting. The curriculum includes Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Plasma Arc Cutting (PAC), Carbon Arc Cutting, Oxyfuel Cutting, and Gas Tungsten Arc Welding (GTAW). Electives are available in advanced levels of welding and cutting.

The welding competencies required in this curriculum were developed to coincide with the Guide for the Training and Qualification of Welding Personnel: Entry Level Welders (AWS EG2.10-95) and Specification for Qualification and Certification for Entry Level Welders (AWS QC 10-95).

This program may lead to an Associate in Applied Science of Occupational Education Degree and is preparatory for employment upon graduation from MGCCC. Where a transfer to a senior college or university is desired, a conference should be scheduled with a community college counselor for advisement.

All students completing a career or technical program must complete either the MSCPAS (Mississippi Career Planning and Assessment System) or an MGCCC Board approved Technical Attainment Assessment where applicable. See your advisor for further details.

WELDING CERTIFICATE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
WLVL 1314 - Cutting Processes	4			
WLVL 1226 - Shielded Metal Arc Welding II	6			
WLVL 1143 - Flux Cored Arc Welding	3			
WLVL 1232 - Drawing and Welding Symbol Interpretation	2			
WLVL 1114 - Shielded Metal Arc Welding I	4			
WLVL 1124 - Gas Metal Arc Welding	4			
WLVL 1136 - Gas Tungsten Arc Welding	6			
WLVL 1171 - Welding Inspection and Testing Principles	1			
Total Credits: 30				

WELDING DIPLOMA

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
WLVL 1155 - Pipe Welding	5			
WLVL 1253 - Advanced Pipe Welding	3			
WLVL 1914 - Special Problem in Welding	4			
CTE 1143 - NCCER Core	3			
Total Credits: 15				

A.A.S.O.E. DEGREE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
ENG 1113 - English Composition I	3			
SPT 1113 - Public Speaking I	3			
<input type="checkbox"/> Social/Behavioral Science <input type="checkbox"/> Math/Natural Science Credit(s): 3/4* <input type="checkbox"/> Humanities/Fine Arts	3/4			
Total Credits: 15/16				

Note: Articulated credit may be awarded for approved courses. Please refer to "The Credit by Non-Traditional Means" section of this catalog regarding stipulations for receiving articulated credit.

PIPEFITTING CONCENTRATION

Jackson County Campus

WHAT THEY DO

Pipefitters install and repair pipes that carry water, steam, air, or other liquids or gases to and in businesses, homes, and factories.*

PAY

In 2016, median pay was \$51,450 per year.*

NUMBER OF JOBS

In 2014, there were 425,000 jobs in the United States.*

The Pipefitting Technology program is designed to prepare students for entry-level positions within the commercial/industrial manufacturing industry. The Pipefitting program will prepare graduates for a career in the installation, maintenance, testing, and repair of piping systems. Graduates will possess the entry-level skills necessary to enter the workforce based upon the National Center for Construction Education and Research competencies.

All students completing a career or technical program must complete either the MSCPAS (Mississippi Career Planning and Assessment System) or an MGCCC Board approved Technical Attainment Assessment where applicable. See your advisor for further details.

PIPEFITTING CERTIFICATE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
PPV 1113 - Fundamentals of Plumbing/ Pipefitting	3			
PPV 1213 - Tacking, Brazing, and Burning	3			
PPV 1432 - Pipe Specifications and Systems	2			
PPV 1313 - Blueprint Reading for Piping Trades	3			
PPV 1323 - Sketching	3			
PPV 1426 - Basic Pipe Fabrication	6			
PPV 1411 - Low Pressure Boilers	1			
PPV 1443 - Piping Level/Transit	3			
PPV 1456 - Advanced Pipefitting Laboratory	6			
Total Credits: 30				

PIPEFITTING DIPLOMA

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
PPV 1812 - Rigging and Signaling	2			
Elective Credits**	15			
Total Credits: 15				

A.A.S.O.E. DEGREE

Course Name	Credit(s)	Term Taken	Grade	Gen Ed
ENG 1113 - English Composition I	3			
SPT 1113 - Public Speaking I	3			
<input type="checkbox"/> Social/Behavioral Science <input type="checkbox"/> Math/Natural Science Credit(s): 3/4* <input type="checkbox"/> Humanities/Fine Arts	3/4			
Total Credits: 15/16				

Note: Articulated credit may be awarded for approved courses. Please refer to "The Credit by Non-Traditional Means" section of this catalog regarding stipulations for receiving articulated credit.

*MAT 1313 or higher or any laboratory science.

**Any instructor/department chair approved field related elective.

LIST OF CONTACTS

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Dykes, Herman Welding Instructor 228-297-2794 herman.dykes@mgccc.edu	Henson, John "Dan" Pipe-fitting Instructor 228-760-1720 john.henson@mgccc.edu
Poelma, John Instrumentation and Controls Instructor 228.497.7743 john.poelma@mgccc.edu	Showah, Willy Precision Manufacturing and Machine Instructor 228-990-3262 willy.showah@mgccc.edu



REFERENCE LINKS



www.GetOnTheGridMS.com



www.mgccc.edu



www.GetIntoEnergy.com



www.mei.ms

REFERENCE SOURCES

This booklet contains information from Mississippi Gulf Coast Community College. Information marked with an asterisk (*) was edited from the Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2016-17 Edition. Information marked with two asterisks (**) was edited from the Central Gulf Industrial Alliance Wage Survey.



