

PROGRAM OF STUDY: Industrial Maintenance



This Program of Study may serve as a graduation guide for the next four plus years, along with other career planning and educational materials. Courses listed in this model may include recommended coursework and should be individualized to students' educational and career goals. Each graduation plan needs to meet minimum high school graduation requirements. Dual Enrollment courses can be high school academic and/or career technical education courses.

SECONDARY:				
COURSE/ GRADE	NINTH	TENTH	ELEVENTH	TWELFTH
ENGLISH	9 th grade Lit/ Composition	10 th grade Lit/ Composition	American Lit/ Composition	World Lit/ Composition / British Lit
MATHEMATICS	Coordinate Algebra / Algebra I	Analytic Geometry / Geometry	Advanced Algebra / Algebra II	Pre-calculus
SCIENCE	Physical Science	Biology	Chemistry	Physics
SOCIAL STUDIES	Government	World History	US History	Economics
PATHWAY COMPLETER	Industrial Mechanics	Fluid Power and Piping Systems	Electrical Motor Controls	Another course in focus area, Work-Based Learning, or Youth Apprenticeship
Industry Recognized Credential (Pathway Completer)		Visit the End of Pathway Assessment Page (see note below)		
Required/ Selective Electives	Health & Personal Fitness (can be taken in grades 9-12)	Introduction to Digital Technology	Embedded Computing	AP Chemistry
	Modern Language/Latin 2 units required for admissions to Georgia University System Colleges/Universities For a listing of Modern Language/Latin courses offered at your high school, please contact your advisor, counselor, or curriculum handbook.		Other Electives For a listing of other elective courses offered at your high school, please check with your advisor, counselor, or curriculum handbook.	

Postsecondary Transition

- University System of Georgia Institutions: Admissions Testing
 - ACT or SAT
 - For More Information contact the institution of your choice
- Technical College System of Georgia
 - Placement Exam
- United States Military
 - ASVAB Assessment
- Use BRIDGE Law platform to inform decisions on postsecondary opportunities
- Dual Enrollment: Earning high school course credits while taking college courses

Industrial Maintenance Career Pathway Completers - Industry Credentialing for High School Students

Upon completion of sequenced courses in the Industrial Maintenance Pathway, students are eligible to complete the Industry-Recognized student credential for fulfillment of the End of Pathway Assessment. Secondary students completing the Industrial Maintenance pathway will be able to sit for the National Industry Credentialed assessment offered on-line from NCCER and NIMS. Once mastery is reached, students will receive recognition for completion and use this credential in conjunction with their job or continuing training. For specific assessment information, refer to: <http://bit.ly/ArchConstEOPA>

Industrial Maintenance Pathway Description

Industrial machinery mechanics and maintenance workers maintain and repair factory equipment and other industrial machinery, such as conveying systems, production machinery, and packaging equipment. Millwrights install, dismantle, repair, reassemble, and move machinery in factories, power plants, and construction sites. Workers in this occupation must follow safety precautions and use protective equipment, such as hardhats, safety glasses, and hearing protectors. Most work full time. However, they may be on call and work night or weekend shifts. Overtime is common. Industrial machinery mechanics and maintenance workers and millwrights typically need a high school diploma. However, industrial machinery mechanics need a year or more of training after high school, whereas maintenance workers typically receive on-the-job training that lasts up to a year. Most millwrights go through a 4-year apprenticeship. Employment of industrial machinery mechanics and maintenance workers and millwrights is projected to grow 17 percent from 2014 to 2024, faster than the average for all occupations. The need to keep increasingly sophisticated machinery functioning and efficient will drive demand for these workers. Job prospects for qualified applicants should be very good. Compare the job duties, education, job growth, and pay of industrial machinery mechanics and maintenance workers and millwrights with similar occupations.

Sample In Demand Careers in Georgia

Occupation Specialties	Level of Education Needed	Georgia Average Salary	Annual Average Openings in Georgia	2018 – 2028 Employment Outlook
Maintenance Workers, Machinery	High School Diploma, some postsecondary	\$41,166	66	In Demand, High Skill
Millwrights	High School Diploma, some postsecondary	\$48,030	65	In Demand, High Skill
Industrial Machinery Mechanics	Postsecondary Certificate	\$45,688	424	In Demand, High Skill
Mechanical Engineering Technician	Bachelor's Degree	\$57,064	184	In Demand, High Skill

Related Pathway Occupations

- Millwright ■ Master Mechanic ■ Mechanic
- Maintenance Technician ■ Maintenance Mechanic

Other Related Occupations

- Automotive Master Mechanic ■ Mobile Heavy Equipment Mechanics
- Electric Motor, Power Tool, and Related Repairers



O*NET Online

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NOTE: Students have many options to **ENTER** and **EXIT** from their academic studies into the workforce. When a student graduates from high school, they are eligible to choose one of many **ENTRANCE POINT** options: **1.** Enroll in either a 2- or 4-year post-secondary program; **2.** Enroll in an apprenticeship program or the military; or **3.** Enter the workforce using technical skills learned in high school. When a student finishes a 2- or 4-year degree program, they may choose to **EXIT** and **1.** Enroll in an apprenticeship program or the military; **2.** Enroll in a professional university degree program; or **3.** Enter the workforce using technical skills learned.

POSTSECONDARY:

	TCC	DIPLOMA OR AAS	BACHELOR OF SCIENCE
Entrance/Exit Point	<p>IF11 Industrial Fluid Power Technician TCC</p> <p>IDSY 1170 Industrial Mechanics</p> <p>IDSY 1190 Fluid Power Systems</p> <p>IDSY 1195 Pumps and Piping Systems</p>	<p>IST4 Industrial Systems Technology Diploma</p> <p>ENGL 1010 Fundamentals of English I</p> <p>MATH 1012 Foundations of Mathematics</p> <p>EMPL 1000 Interpersonal Relations and Professional Development</p> <p>IDSY 1110 Industrial Motor Controls I</p> <p>IDSY 1101 DC Circuit Analysis</p> <p>IDSY 1105 AC Circuit Analysis</p> <p>IDSY 1120 Basic Industrial PLCs</p> <p>IDSY 1130 Industrial Wiring</p> <p>9 Credits of Occupational Electives</p> <p>IS13 Industrial Systems Technology Degree</p> <p>IST4 Diploma plus</p> <p>15 Credits General Education Core</p> <p>IDSY 1210 Industrial Motor Controls II</p> <p>IDSY 1220 Intermediate Industrial PLCs</p> <p>2 credits of Occupational Electives</p>	<p>The University System of Georgia offers students' higher education options at 30 institutions throughout the state, providing a wide range of academic programming including certificates and associate, baccalaureate, masters, doctoral and professional degrees.</p> <p>https://apps.ds.usg.edu/ords/f?p=118:1:0::::</p> <p>USG Staying on Course</p> <p>https://www.usg.edu/student_affairs/assets/student_affairs/documents/Staying_on_Course.pdf</p>

Go to GAfutures at www.gafutures.org for more information about your education and career planning, including valuable financial information (grants and scholarships including HOPE Program, grants, and loans, FAFSA, and CSS forms).

Career Enhancement Opportunities	<p>Career-Related Education Activities</p> <ul style="list-style-type: none"> • Career Awareness • Career Exploration • Instructional Related • Connecting <ul style="list-style-type: none"> • Work-Based Learning • Employability Skill Dev. • Cooperative Education • Internship • Youth Apprenticeship • Clinicals 	<p>Postsecondary Options:</p> <ul style="list-style-type: none"> • 4-Year Universities/Colleges • 2-Year Colleges • Technical Colleges • State Registered Apprenticeships • Special Purpose Schools • On-the-Job Training • Military 	<p>Earning Postsecondary Credits While in High School</p> <ul style="list-style-type: none"> • Dual Enrollment Program <ul style="list-style-type: none"> • Earn postsecondary credit while in high school • You can complete <ul style="list-style-type: none"> • Industry Credential • Technical Certificate of Credit (TCC) • Associates of Applied Science Degree • Bachelor's Degree • Who can help? <ul style="list-style-type: none"> • Parents • School Counselor • Advisor
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