

PROGRAM OF STUDY: Plumbing



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:					POSTSECONDARY:		
COURSE/ GRADE	NINTH	TENTH	ELEVENTH	TWELFTH	TCC	DIPLOMA OR AAS	BACHELOR OF SCIENCE
ENGLISH	9 th grade Lit/ Composition	10 th grade Lit/ Composition	American Lit/ Composition	World Lit/ Composition / British Lit	Entrance/Exit Point	Entrance/Exit Point	Entrance/Exit Point
MATHEMATICS	Coordinate Algebra / Algebra I	Analytic Geometry / Geometry	Advanced Algebra / Algebra II	Pre-calculus			
SCIENCE	Physical Science	Biology	Chemistry	Physics			
SOCIAL STUDIES	World History	Psychology	US History	Government (½ unit) Economics (½ unit)			
PATHWAY COMPLETER	Industry Fundamentals & Occupational Safety	Introduction to Construction	Plumbing I	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 Business Technology	Financial Literacy	Plumbing II			
	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.				
					PS41 Plumbing Service and Systems Specialist Certificate	Find the campus for the Diploma, Degree options	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. https://apps.ds.usg.edu/ords/f?p=118:1:0
					RP11 Residential/ Commercial Plumbing Technician Certificate		
					BP11 NCCER Plumbers Assistant Certificate		
					PT11 NCCER Plumbing Technician Certificate		
					AP61 NCCER Advanced Plumbing Technician Certificate	Find the campus for the TCC options	

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.

Plumbing Career Pathway Completers - Industry Credentialing for High School Students
Upon completion of sequenced courses in the Plumbing Pathway, students are eligible to complete the Industry-Recognized student credential for fulfillment of the End of Pathway Assessment. Secondary students completing the Plumbing pathway will be able to sit for the National Industry Credentialed assessment offered on-line from NCCER and SkillsUSA. 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>.

Sample In Demand Careers in Georgia

Occupation Specialties	Level of Education Needed	Georgia Average Salary	Annual Average Openings in Georgia	2014 – 2024 Employment Outlook
Construction Plumbers	Postsecondary Certificate	\$45,626	1,570	In Demand, High Skill
Construction Managers	Bachelor's Degree	\$99,756	136	In Demand, High Skill
Pipe Fitters and Steamfitters	Postsecondary Certificate	\$45,626	1,570	In Demand, High Skill
First Line Supervisors of Construction Trades and Extraction Workers	Postsecondary Certificate	\$61,203	1,942	In Demand, High Skill

[Data link here.](#)

Go to [GAfutures at www.gafutures.org](http://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	Career-Related Education Activities <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 	Postsecondary Options: <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 	Earning Postsecondary Credits While in High School <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 <ul style="list-style-type: none"> Bachelor's Degree Who can help? <ul style="list-style-type: none"> Parents School Counselor Advisor
	Postsecondary Transition <ul style="list-style-type: none"> University System of Georgia Institutions: Admissions Testing <ul style="list-style-type: none"> ACT or SAT For More Information: <ul style="list-style-type: none"> Contact the institution of your choice OR Technical College System of Georgia <ul style="list-style-type: none"> Placement Exam United States Military <ul style="list-style-type: none"> ASVAB Assessment Use BRIDGE Law platform to inform decisions on postsecondary opportunities Dual Enrollment <ul style="list-style-type: none"> Earning high school course credits while taking college courses 		
Related Pathway Occupations		Other Related Occupations	
<ul style="list-style-type: none"> Plumbers Pipefitters and Steamfitters Plumbing Craft Laborers Cost Estimators Construction Foremen Construction Inspectors 		<ul style="list-style-type: none"> Construction Engineers Project Inspectors Project Managers <p style="text-align: right;">*ONET Online</p>	

Plumbing Pathway Description

Construction is one of the nation's largest industries with over 7 million wage and salary jobs and 1.9 million self-employed workers. Construction includes the building of new structures as well as additions and modifications to existing ones.

The construction industry also includes maintenance, repair and improvements on these structures. Plumbers, pipefitters, and steamfitters install and repair pipes that carry water, steam, air, or other liquids or gases to and in businesses, homes, and factories. They work in factories, homes, businesses, and wherever else there are pipes or septic systems.

Workers must often lift heavy materials, climb ladders, and work in tight spaces. Some plumbers travel to a variety of work sites every day. Most plumbers, pipefitters, and steamfitters learn on the job through an apprenticeship. Some start out by attending a technical school. Most states and localities require plumbers to have a license.

Employment of plumbers, pipefitters, and steamfitters is expected to grow 26 percent from 2014 to 2024, faster than the average for all occupations. Stricter water efficiency standards and new building and power plant construction are projected to spur demand for workers. There are different levels usually depending on training and experience.

For example, a master plumber on construction jobs may be involved with developing blueprints that show where all the pipes and fixtures will go. Their input helps ensure that a structure's plumbing meets building codes, stays within budget, and works well with the location of other features, such as electric wires.