ABOUT THE PROGRAM
Evidence of welders’ work is all around us—everything from battleships, cars, and piping to the amazing dome on the U.S. Capitol Building. If you like hands-on work, have solid math and reading skills, are dedicated to accuracy, and have an eye for detail, welding is the perfect career for you.

PROGRAM OUTCOMES
• Apply safety practices while using welding machines and metal working machines that are used in today’s industry.
• Recognize the safety hazards that are in a weld shop setting (grinders, hand tools, etc.).
• Interpret blueprints and AWS welding symbols.
• Apply basic math, algebra, and geometry concepts to the field of welding.
• Apply welding terminology used in industry.
• Troubleshoot problems with welding equipment.
• Analyze weld quality in mild steel, stainless steel, and aluminum using various weld inspection techniques.
• Perform welding in all positions using SMAW, GMAW, GTAW, and FCAW welding process.
• Perform procedures using submerged arc welding process.
• Perform procedures using oxyfuel, plasma arc cutting, and carbon arc cutting processes.
• Recognize ferrous and nonferrous materials and how they are affected by heat.

ADMISSIONS STEPS
• Work with Admissions Specialist to:
  - Submit application and $30 fee.
  - Complete an assessment for placement (Accuplacer or ACT).
  - Submit official transcripts (high school and other colleges).
  - Meet with program advisor/counselor to discuss program details.

APPROXIMATE COSTS
• $132 per credit (resident)
• $198 per credit (out-of-state resident)
• Other fees vary by program (books, supplies, materials, tools, uniforms, health-related exams, etc.) Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

PLACEMENT SCORES
Accuplacer/ACT scores will be used to develop your educational plan. Contact your program advisor/counselor for details.

SPECIAL NOTE
This program is available in a part-time evening and full-time day offering. All classes meet the American Welding Society requirements.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES
LTC credits transfer to over 30 universities. For more information visit gotoltc.edu/future-students/transfer.

CONTACT
Chou Yang, Admissions Specialist
920.693.1851 • chou.yang@gotoltc.edu

Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor/counselor for details.
COMMUNICATION SKILLS FOR THE WORKPLACE...prepares the student to develop paper work, job search skills, and job-related writing skills to increase job stability, introduces the students to team-building skills to resolve organizational problems; introduces the student to the skills of effective listening; prepares the student to respond to workplace criticism and praise; and introduces the student to interpersonal relationship skills, including effective interviewing techniques, conflict resolution, job and interpersonal skills, team building and personal leadership skills.

COMPUTER ESSENTIALS...covers computer technology and basic computer skills for the student who is just starting classes at LTC. This course will include topics related to uses of computer hardware and software, internet searching, e-mail, MyLTC, online courses, and an introduction to documents and presentations.

PSYCHOLOGY FOR LIFE...prepares the learner to select behavior modification techniques, study techniques for enhancing memory, analyze expressions of emotion, use conflict for common good, employ techniques to reduce conduct disorders, use several tools to reduce stress, interpret personality types, ascertain contributors to perception, and apply methods of problem-solving.

WELDING ADVANCE PROCESS 1A...is the third course in a student selected welding process. In it the student will begin to use that process to weld specialty metals including pipe.

WELDING ADVANCE PROCESS 1B...is the third course in a student selected welding process. In it the student will learn to use that process to weld specialty metals including pipe in preparation for welder qualification testing.

WELDING FABRICATION INTRODUCTION...introduces the learner to various types of structural steel, sheet metal, and pipe and prepares the learner to perform fabrication from assembly prints, including cutting, welding, bending, straightening and repair. Repair practice of home and shop projects is encouraged for skill development.

WELDING GAS METAL ARC 1A...prepares the learner to demonstrate safe shop work practices; set up and shut down of GMAW (Gas Metal Arc Welding) and FCAW (Flux Core Arc Welding) equipment; welding in the flat, vertical, horizontal, and overhead positions using 1/8 inch steel plate. Using .030" flux core electrode wire; weld mild steel plate in the flat and horizontal positions using .030" flux core electrode wire; weld mild steel plate in the flat and horizontal positions using .030" flux core electrode wire.

WELDING GAS METAL ARC 1B...prepares the learner to demonstrate safe shop work practices; weld tube to plate making 1/4" fillet welds; make fillet welds in the horizontal, vertical, and overhead positions using .035" flux core electrode wire on mild steel; make groove welds in the horizontal, vertical, and overhead positions using .035" flux core electrode wire; make single bevel groove welds using .030" flux core electrode wire; make single bevel groove welds using .030" flux core electrode wire.

WELDING GAS TUNGSTEN ARC 1A...prepares the learner to demonstrate safe shop work practices; weld mild steel in the flat position and horizontal positions, weld stainless steel in the flat position and horizontal positions, and groove welds will also be performed in the vertical and overhead positions.

WELDING GAS TUNGSTEN ARC 1B...prepares the learner to demonstrate safe shop work practices; weld mild steel in the horizontal and vertical up positions, weld stainless steel in the horizontal and vertical up positions, weld mild steel in the horizontal and vertical up positions, weld aluminum in the horizontal and vertical up positions, and groove welds will also be performed in the vertical and overhead positions.

WELDING GAS TUNGSTEN ARC 2A...prepares the learner to demonstrate safe shop work practices; weld stainless steel in the flat position and horizontal positions, weld stainless steel in the flat position and horizontal positions, and groove welds will also be performed in the vertical and overhead positions.

WELDING GAS TUNGSTEN ARC 2B...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld stainless steel in the flat and horizontal positions using the GTAW process; and make single bevel groove welds in mild steel in the vertical and overhead positions using the GTAW process; and minimize oxidation in metals during welding.

WELDING GAS TUNGSTEN ARC 2C...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; and minimize oxidation in metals during welding.

WELDING GAS TUNGSTEN ARC 2D...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; and minimize oxidation in metals during welding.

WELDING GAS TUNGSTEN ARC 2E...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; and minimize oxidation in metals during welding.

WELDING GAS TUNGSTEN ARC 2F...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; and minimize oxidation in metals during welding.

WELDING GAS TUNGSTEN ARC 2G...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; and minimize oxidation in metals during welding.

WELDING GAS TUNGSTEN ARC 2H...prepares the learner to demonstrate safe shop work practices; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; weld 1/4" mild steel plate in the flat, horizontal, vertical, and overhead positions using the GTAW process; and minimize oxidation in metals during welding.