What is CTAE Delivers?

February 5, 2020
CTAE Delivers…
3 Key Messages

- Real Opportunities for College & Rewarding Careers
- Real High School Experience with Added Value
- Real-World Workforce-Ready Skills
CTAE Delivers Real Options for ALL Students for College and Rewarding Careers

- CTAE programs allow students to explore a range of options for their future – inside and outside of the classroom.

[https://www.wabe.org/pilot-program-to-introduce-agriculture-education-into-georgia-elementary-schools/]
CTAE Delivers Real Options for ALL Students for College and Rewarding Careers

➢ Through CTAE, students can start their path toward a career that they are passionate about, while earning valuable experience, college credits, and more.
   ▪ Experiential Learning

CTAE Quick Links

- Georgia CTAE Strategic Plan
- Locally Developed Career Pathway Course Process
- Georgia CTAE Employability Skills Task Force Recommendations
- YouScience Report - 2019
- New CTAE Director Training Recommendations
- Experiential Learning web site

▪ Early post-secondary opportunities
CTAE Delivers a Real High School Experience with More Value

- CTAE programs are **PART** of high school – students can participate in CTE and the other activities they enjoy, such as sports, the arts or whatever else their friends are doing.
- CTAE takes students even further during their high school experience – providing opportunities for specialized classes, internships, and networking with members of their community. (FY2018 data below.)
  - 68% GA HS students take at least 1 CTAE course (385,431)
  - 62% GA MS students take at least 1 CTAE course (271,064)
  - 18,396 students participate in WBL
  - STEM/STEAM Certified schools: 44 ES, 14 MS, 14 HS
  - 9CTSOs
  - 17 Career Clusters
  - 130+ Career Pathways
  - Pathway Completers
  - 96.48% CTAE graduation rate
  - Local Pathways

https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx
- Credentials – 36,177 – FY 18
- Programs of Study – 43 and more to come

https://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/Programs-of-Study.aspx
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.

<table>
<thead>
<tr>
<th>Course/Grade</th>
<th>Ninth</th>
<th>Tenth</th>
<th>Eleventh</th>
<th>Twelfth</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>9th grade Lit/Composition</td>
<td>10th grade Lit/Composition</td>
<td>American Lit/Composition</td>
<td>World Lit/Composition / British Lit</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Coordinate Algebra / Algebra I</td>
<td>Analytic Geometry / Geometry</td>
<td>Advanced Algebra / Algebra II</td>
<td>Pre-calculus</td>
</tr>
<tr>
<td>Science</td>
<td>Physical Science</td>
<td>Biology</td>
<td>Chemistry</td>
<td>Physics</td>
</tr>
<tr>
<td>Social Studies</td>
<td>Psychology</td>
<td>World History</td>
<td>US History</td>
<td>Government (1½ unit) Economics (½ unit)</td>
</tr>
<tr>
<td>Pathway Completer</td>
<td>Industrial Mechanics</td>
<td>Fluid Power and Piping Systems</td>
<td>Electrical Motor Controls</td>
<td>Work-Based Learning, Youth Apprenticeship, or Captopstone Project</td>
</tr>
</tbody>
</table>

Industry Recognized Credential (Pathway Completer) Visit the End of Pathway Assessment Page (see note below)

Required/Selective Electives

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

IF11 Industrial Fluid Power Technician TCC

Postsecondary

<table>
<thead>
<tr>
<th>TCC</th>
<th>Diploma or AAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- IDSY 1170 Industrial Mechanics</td>
<td></td>
</tr>
<tr>
<td>- IDSY 1190 Fluid Power</td>
<td></td>
</tr>
<tr>
<td>- IDSY 1155 Pumps and Piping Systems</td>
<td></td>
</tr>
<tr>
<td>- IDSY 1110 Industrial Motor Controls 1</td>
<td></td>
</tr>
</tbody>
</table>

Bachelor of Science

Completion of IF11 Industrial Fluid Power Technician TCC leads to IST4 Industrial Systems Technology diploma or IS13 Industrial Systems Technology degree.

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.usog.edu/ords/refpit118.10:

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.

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

Upon completion of sequenced courses in the Industrial Maintenance Career 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/GAManufacturing

Developed 1-31-2017; Revised 3-23-2018
### Sample High Demand Careers in Georgia

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Level of Education Needed</th>
<th>Georgia Average Salary</th>
<th>Annual Average Openings in Georgia</th>
<th>2014 – 2024 Employment Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Machinery Mechanics</td>
<td>Postsecondary Certificate</td>
<td>$45,688</td>
<td>424</td>
<td>High Demand, High Skill</td>
</tr>
<tr>
<td>Maintenance Workers, Machinery</td>
<td>Diploma, some postsecondary</td>
<td>$41,166</td>
<td>66</td>
<td>High Demand, High Skill</td>
</tr>
<tr>
<td>Millwrights</td>
<td>Diploma, some postsecondary</td>
<td>$46,030</td>
<td>68</td>
<td>High Demand, High Skill</td>
</tr>
</tbody>
</table>

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).

### 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 2012 to 2022, 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.

### Earning Postsecondary Credits While in High School

A vital way to get ahead and realize you can pass college courses is by earning postsecondary credits as a high school student. Georgia offers a dual credit program titled Dual Enrollment. You need to talk with your parents, school counselor, or advisor about the proper courses to take each year in high school and dual credit.

Students completing the course work in this Plan will have earned/completed an Industry Credential, Technical Certificate of Credit (TCC), Associates of Applied Science Degree, and/or Bachelor's Degree.

### Postsecondary Transition

- Students who will continue their education in a Program of Study at one of the University System of Georgia institutions should prepare to take the ACT or SAT for admissions. Tests for admissions may vary from institution to institution. Contact the selected institution for specific testing information. Additional admissions information can be found at Staying On Course. ([www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf](http://www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf))
- Students who will continue their education in a Program of Study at one of the Technical College System of Georgia institutions should prepare to complete a placement exam.
- Students who will continue their education and training in the US Military should take the ASVAB assessment.
- Students should utilize electronic college and career databases to select the most appropriate postsecondary opportunities to match their selected career field, including registered apprenticeships.
- Georgia's dual-credit programs have been combined into one program entitled Dual Enrollment, in which high school students may earn their high school course credits while taking college courses.

### Related Pathway Occupations

- Millwright
- Machinery Maintenance Workers

*ONET Online
CTAE Delivers Real-World Workforce-Ready Skills

- CTAE is a unique opportunity for hands-on learning – putting students at the center of the action.
  - Employability Skills
  - Work-based Learning
  - CTSOs

- CTAE provides the skills and confidence students need to pursue career options, discover their passions and get on a path to success.
  - Educator Externships
  - School Counselors
  - CTAE Teachers
  - CTAE Administrators
  - Partners
  - YouScience (listening session results)
CTAE Toolkit for EVERYONE
CTAE Toolkit Items

• CTAE Glossary
• CTAE Month Fact Cards
• CTAE Month Poster
• I-Heart-CTAE Sign and Step-and-Repeat
• Pathways to Success poster
• Core Messages about CTAE
• Parent Engagement Tool
• Dos and Don’ts for Engaging Parents/Students
#CTAEDELIVERS

CTAE DELIVERS REAL OPTIONS FOR COLLEGE AND REWARDING CAREERS
Through CTAE, students can start their path toward a career that they are passionate about, while earning valuable experience, college credits and more.

CTAE DELIVERS REAL-WORLD SKILLS
CTAE is a unique opportunity for hands-on learning – putting students at the center of the action.
CTAE provides the skills and confidence students need to pursue career options, discover their passions and get on a path to success.
Students in CTAE programs and their parents are three times as likely to report they are “very satisfied” with their and their children’s ability to learn real-world skills as part of their current education compared to parents and students not involved in CTAE.

CTAE DELIVERS A REAL HIGH SCHOOL EXPERIENCE WITH MORE VALUE
CTAE programs are a part of high school – students can participate in CTAE and the other activities they enjoy, such as sports, the arts or whatever else their friends are doing.
CTAE takes students even further during their high school experience – providing opportunities for specialized classes, internships, and networking with members of their community.

Make it a priority to teach students skills that make them employable. How can you help champion this in your school?

ctae.gadoe.org  facebook.com/GeorgiaCareerTech  twitter.com/georgiactae
#CTAEDELIVERS

**CTAE FACTS**

600,000+ STUDENTS across Georgia enroll in CTAE courses and career pathways every year.

404 There are 404 industry-certified programs offered in CTAE.

61.75% In Georgia public schools, 61.75% of all middle school students and 67.88% of all high school students were enrolled in at least one CTAE class during the 2017-2018 school year.

67.88%**

**CTAE HAS PROVEN RESULTS**

96.6% In 2016, the average graduation rate was 80.5%. **CTAE concentrators had a graduation rate of 96.49%**

36,177 CREDENTIALS In 2018, 36,177 high school CTAE concentrators **earned an industry credential.**

5% MORE STUDENTS CTAE is delivering more Georgia students to post-secondary education. From 2017 to 2018, 5% **more students took dual enrollment classes, earning college credit.**

**GEORGIANS BELIEVE IN CTAE**

88% 88% of Georgians **support job or career skills classes** even if that means students spend less time in academic classes.

85% 85% of Georgians believe technology and engineering classes are extremely **very important.**

90% 90% of Georgians say schools should offer **certificate or licensing programs**, compared to 86% of Americans.

---

Make it a priority to teach students skills that make them employable. How can you help champion this in your school?

ctae.gadoe.org  facebook.com/GeorgiaCareerTech  twitter.com/georgiactae
Real-world, hands-on skills are the most prominent and essential part of career development within CTAE courses. They take skills necessary for future careers, and build lessons off of those skills to ensure that students are the most prepared for their future careers.”

- KIRK BEACHAM, STUDENT

CTAE Classes prepare students for success by teaching them hands-on experience, employability skills, but most of all teaches them how to be successful in the game of life.”

- KEDRIONE HARRIS, EDUCATOR

CTAE is a powerful approach to allowing students to discover their interests and passions and then choose an educational pathway in secondary education that will lead them to success in high school, college, and career.”

- VALERY LOWE, EDUCATOR

Through intracurricular CTSC’s, hands-on project-based instruction, and internship opportunities, CTAE courses prepare students to become the leaders of tomorrow who will build an innovative, ethical and prosperous future for our community and state.”

- CAITLIN MITCHELL, EDUCATOR

CTAE does a fantastic job of adapting basic concepts and shows the “application.” Students are always thinking “why” do I need to learn this? Why is this important. CTAE answers the questions for the learner.

- DR. DEBBIE PHILLIPS, CPM

Make it a priority to teach students skills that make them employable. How can you help champion this in your school?

ctaegadoe.org facebook.com/GeorgiaCareerTech twitter.com/georgiacatae
My very first CTAE class was an Intro to Law Enforcement class. This class not only gave me valuable information on possible career pathways that I could take but the class taught me how to successfully prepare for job interviews and also how to keep up the first impression. CTAE classes prepare students for the real world and our futures.

- Maylyn Mann, Student

CTAE brings industry folks, skills competitions and actual tools they use into the classroom, the learning in the classroom is DIRECTLY connected to the real-world that is waiting for them when they graduate.

- Michael Kenig, Industry Leader

CTAE allows students to learn and apply relevant skills that span beyond the four walls of the classroom. CTAE programs have partnerships with employers in their communities...who may provide training, mentorship, opportunities for internships, networking, and even entry-level jobs for students.

- Angie Lewis, CTAE Director

CTAE courses provide students with opportunities to take on leadership positions, practice soft skills on a daily basis, and show students the link from learned skills to real world by providing relevancy in the learned skills.

- Jennifer Butler, Educator

No other course can ensure that students are as prepared and enthusiastic for life after high school as well as Career, Technical, and Agricultural Education can. By providing me with the tools I needed to succeed, my CTAE pathway has allowed me to get more involved and passionate for my future!

- Zubaida Aires; CTAE Student; FCCLA State Officer

Make it a priority to teach students skills that make them employable. How can you help champion this in your school?

c.te.gadoe.org  facebook.com/GeorgiaCareerTech  twitter.com/georgiactae
CTAE DELIVERS

600,000+
Students across Georgia enroll in CTAE courses and career pathways every year.

96.6%
CTAE concentrators had a graduation rate of 96.6%.

96.5%
96.5% of employers find the Georgia Youth Apprenticeship Program beneficial to their companies.

61.75%
In Georgia public schools, 61.75% of all middle school students and 67.88% of all high school students were enrolled in at least one CTAE class during the 2017-2018 school year.

Top 10 CTAE Programs
- Business Management and Administration: 12.08%
- Information Technology: 11.6%
- Finance: 10.82%
- Health Science: 8.79%
- Human Services (HS)/Family and Consumer Sciences: 6.6%
- Agriculture, Food and Natural Resources: 6.14%
- Hospitality and Tourism: 5.86%
- Arts, AV/Technology and Communications: 5.73%
- Science, Technology, Engineering and Mathematics: 5.6%
- Marketing: 5.01%

CTAE Students are Diverse
- White: 44%
- Black: 38%
- Hispanic: 14%
- Other: 7%
- Male: 53%
- Female: 47%

90% of Georgians say schools should offer certificate or licensing programs, compared to 66% of Americans.
Here is an H1 Title

2-column article text goes here. Text will resize if too long for the available space. When pasting, make sure to click on the clipboard and choose "Keep Text Only".
<table>
<thead>
<tr>
<th>Here is an H1 Title</th>
<th>1-column article text goes here. Text will resize if too long for the available space. When pasting, make sure to click on the clipboard and choose “Keep Text Only”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Click icon to add picture</td>
</tr>
<tr>
<td></td>
<td>2-column article text goes here. Text will resize if too long for the available space. When pasting, make sure to click on the clipboard and choose “Keep Text Only”</td>
</tr>
<tr>
<td></td>
<td>Click icon to add picture</td>
</tr>
<tr>
<td></td>
<td>Click icon to add picture</td>
</tr>
<tr>
<td></td>
<td>Space for a caption</td>
</tr>
</tbody>
</table>
“CTAE makes the text book come to life. At no other point in my education career did any course make this happen like CTAE did for me.

MATTHEW GAMBILL, STATE REPRESENTATIVE

Pictured: Matthew Gambill, Legislator

2. Through CTAE, students can start their path toward a career that they are passionate about, while earning valuable experience, college credits and more.
18. “CTAE delivers results because it provides real world work experiences that promote student success.” – Tim Hobbs, CTAE Director
Where to find the CTAE Toolkit?

- Login to [www.ctaern.org](http://www.ctaern.org).
- Click Forms & Resources on the right.
- Then scroll down to find CTAE Toolkit.
CTAE Delivers!
CTAE Delivers…
3 Key Messages

- Real Opportunities for College & Rewarding Careers
- Real High School Experience with Added Value
- Real-World Workforce-Ready Skills