



a world of OPPORTUNITIES

**GREAT SKILLS CAN TAKE YOU PLACES!*



2018-2019 CLASS INFORMATION

TABLE OF CONTENTS

Why Take CTE Classes 3

Programs

- AgriScience 4
- Automotive Technologies 5
- Building Trades 6
- Computer-Aided Design (CAD) 7
- Computer Coding & Gaming 8
- Computer Networking 9
- Graphic Design 10
- Marketing 11
- Medical Occupations 12
- Welding Technologies 13

High School & College

- Dual Enrollment Credits 14

CTE Facts 15



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WHAT IS CTE

(and why should I sign up?)

“Some people think CTE is for students who are not ‘college material’. Today, more CTE students go to college/post-secondary than students who do not take CTE in high school.

Ask any hiring professional where the jobs of tomorrow will be. Chances are, they'll tell you people with technical skills will be in the greatest demand ever!

Career & Technical Education (CTE) classes will help you explore and get started on a career that interests you! The rigor of high school CTE classes enables you to earn:

- High school graduation credits (see Page 14)
- College dual enrollment credits
- Certifications
- Real-world job skills to get you started on success!

St. Joseph County public school districts work together to offer 10 different CTE classes to juniors and seniors at six different locations. You'll be taking classes with students from other area high schools - who like you - really want to learn from teachers who are passionate about their teaching.

AGRISCIENCE

AgriScience is not only the largest employer in St. Joseph County, but with more than 23 million jobs, the Ag industry is the nation's largest employer. The variety of jobs in this field is huge... and growing!

Students learn "hands-on" at the barn and land lab, in the greenhouse, and in the classroom in Centreville. You'll learn the latest research on soil, crop, and plant science as well as animal and veterinary science, irrigation, how to manage and conserve natural resources, and the latest on alternative energy.

You'll also have the opportunity to compete at the St. Joseph County Grange Fair and operate farm equipment and machinery.



HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 2nd-year Science
- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn up to six (6) Michigan State University credits through FFA participation. See the instructors for details.

CERTIFICATIONS

- Tractor Safety
- OSHA

STUDENT ORGANIZATION

- FFA

AUTOMOTIVE TECHNOLOGIES

HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- AUTO 100 Intro to Automotive (3)
- AUTO 146 Braking Systems (4)
- AUTO 221 Suspension (4)

CERTIFICATIONS

- ASE Maintenance & Light Repair (MLR)

STUDENT ORGANIZATION

- SkillsUSA

Auto technicians remain in high demand as today's cars continue to be more technologically advanced. Graduates of the CTE Automotive Technologies program have a competitive advantage for the growing number of jobs forecasted. Students who complete two years of the program will learn to diagnose and repair steering, suspension, brakes, and electrical, as well as perform engine maintenance and repair.

The class takes field trips to auto shows and students get plenty of "hands-on" opportunities to work on cars.



BUILDING TRADES

This class teaches all the basics of building a house from foundations to framing, electrical to plumbing, estimating to project management ... and more! If you like working with your hands, you will love this class. There is a wide variety of construction jobs needed in Michigan and throughout the country, and the job outlook is growing!

First-year students will learn in the ClassLab and the onsite house project, while second-year students will learn both at the onsite and in an on-the-job "internship" with local professionals.

Students will learn to use hand and powertools, OSHA worksite safety regulations, teamwork, the basics of electrical plumbing and HVAC systems, building codes, estimating, blueprints, job interviewing skills and more!



HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn *free, articulated college credit* through Southwestern Michigan College for the following class:

- CONS 114 Intermediate Construction Practices (8)

Note: See CTE instructors for updated information on dual enrollment options.

STUDENT ORGANIZATION

- SkillsUSA

HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience
- Visual, Performing & Applied Arts

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- CADD 215 Computer Aided Design (3)
- CADD 216 Advanced CAD (3)
- CADD 217 3D Solid Modeling (3)
- CADD 218 Advanced 3D Solid Modeling (3)
- CADD 219 Advanced 3D Modeling (3)

CERTIFICATIONS

- SolidWorks

STUDENT ORGANIZATION

- MITES

COMPUTER-AIDED DESIGN (CAD)

Knowing how to use industry standard computer-aided design software such as AutoCAD, Inventor, and Solidworks is a highly sought after skill by many industries. For engineers in manufacturing, construction, electrical fields, and the automotive industry, having CAD skills is a must, as they are for architects, interior designers, industrial designers, and other professionals.

CAD students will learn how to read, interpret, and create technical drawings and readouts for a variety of applications. They will also learn to design with 2D and 3D software. The class is mainly project based, so you can work on creating projects that interest you while learning skills that will help you secure a job or continue to post-secondary education.



COMPUTER CODING & GAMING

If you like technology and can think “outside the box,” this class is for you! Knowing basic software languages will help prepare you for the 18,000-plus jobs currently available in Michigan in the information technologies industry.

Students have the opportunity to learn and understand computer programming, including software for mobile applications, gaming, and web site development. You will learn in-demand languages such as JavaScript, C#, C++, PHP, Python, Visual Basic, and more.

*This class is not about “playing games,”
but rather, how you can use your interests
and talents to jumpstart a career for
success in the diverse field of IT!*



HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- CIS 117 Visual Basic Programming for Microcomputers (3)
- CIS 132 Introduction to Java (4)

CERTIFICATIONS

This class offers multiple certification opportunities in various programming languages. See the instructor for details.

STUDENT ORGANIZATION

- Business Professionals of America (BPA)

HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- CIS 220 Computer Technician Essentials (3)
- CIS 240 Introduction to Networking (3)

CERTIFICATIONS

This class offers multiple certification opportunities in various programming languages. See the instructor for details.

STUDENT ORGANIZATION

- Business Professionals of America (BPA)

COMPUTER NETWORKING

Today's world is connected by computers.

Professionals who can connect computers to the world – and keep them running – are in high demand. As information technologies become more “virtual,” the demand for computer technicians is expected to grow far greater than even other technical occupations.


In this class, you'll learn everything from the basics of setting up and repairing computers, to connecting networks and the fast-growing, fast-paced world of cybersecurity. You also will have opportunities to prepare and take multiple industry certifications that help graduates leave the class ready for their first job!



GRAPHIC DESIGN

Would you like to become a thriving artist or designer? Merge computer skills with your artistic side to become a professional Graphic Designer and be employed in a number of creative industries. Every product and service that is sold uses Graphic Design to communicate a message and close the deal!

This class offers students up to 21 transferable college credits over two years. You will learn color theory, image manipulation, photography, digital illustration, typography, and advertising basics. Paid & unpaid internships may be available for second year students.



In this class, you'll learn on state-of-the-art, industry-standard Macintosh computers with the latest Adobe Creative Cloud software in the Glen Oaks Mac Lab.

HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience
- Visual, Performing & Applied Arts

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- ART 115 Intro to Graphic Design (3)
- ART 170 Image Manipulation (3)
- ART 172 Digital Illustration (3)
- ART 116 Color Theory (3)
- ART 160 Beg. Photography (3)
- ART 271 Internship (3)
- ART 276 Advertising (3)

STUDENT ORGANIZATION

- Business Professionals of America (BPA)

MARKETING

HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- BUS 104 Introduction to Business (3)
- BUS 250 Principles of Marketing (3)

STUDENT ORGANIZATION

- DECA

Whether it is a product, an event, a service, or even just an idea, marketing is a key skill for all successful professionals.

The CTE Marketing class teaches how to open, own, and operate your own business, how to develop selling strategies and first-class customer relations, how to design promotional materials and activities, how to network your business, and how to maintain financial and inventory records.

Most importantly, this class will teach you how to market yourself, and has a long history of success in DECA competitions, helping you to create more opportunities for yourself and a brighter, more successful future.



MEDICAL OCCUPATIONS

Medical occupations continue to grow at a fast rate as the baby boomer generation ages and medical technology continues to advance. Health care occupations make up 12 of the 20 fastest-growing occupations in the U.S.

This class examines the many career opportunities in the medical industry: nursing, lab technicians, therapy and rehabilitation, pharmaceutical, etc. The class stresses medical terminology, CPR and first aid, anatomy and physiology, and excellent communication skills.

The rigor in this class is rewarded with opportunities to participate in HOSA competitions and clinical experiences.



HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- ALH 100 Intro to Health Careers (3)
- ALH 218 Medical Terminology (3)
- ALH 222 Diseases/Disorders (3)
- ALH 103 Nutrition (3)

CERTIFICATIONS

- CPR
- First Aid

STUDENT ORGANIZATION

- HOSA

HIGH SCHOOL GRADUATION CREDITS

This class may fulfill or be used in lieu of the following high school graduation requirements. See your counselor and Page 14 for more information.

- 3rd-year Science (2nd year)
- Final-year Math
- 2nd-year of World Languages
- Online Learning Experience
- Visual, Performing & Applied Arts

DUAL ENROLLMENT CREDIT

Students can earn *free, transferable college dual enrollment credit* through Glen Oaks CC for the following classes:

- WELD 105 Basics of Welding (0.43); WELD 110 Oxyacetylene Welding (1.54); WELD 115 Cutting Processes (0.79); WELD 125 Shielded Metal Arc Welding (4.02); WELD 130 Advanced Stick Welding (5.74).

Students at Constantine HS can earn *free, transferable college dual enrollment credit* through Southwestern Michigan College for the following classes:

- WELD 159 Basic Welding (2); WELD 235 Metallurgy (2); WELD 265 Thermal Cutting Processes (2); WELD 169 GMAW/MIG (2); CONS 115 Construction Math (2); WELD 180 SMAW/Stick (4); WELD 277 Fabrication & Maintenance Repair (2); WELD 279 Inspection (2)

CERTIFICATIONS

- AWS SENSE Certification

WELDING TECHNOLOGIES

Do you like working with your hands? Do you have creative abilities, basic math skills, and an attention for detail?

Welding may be in your future!

Numerous high-paying jobs are available in St. Joseph County for workers with proven work habits, skills and a basic knowledge of welding. This class will teach you the employability skills you need to be successful on the job as well as MIG, TIG and stick welding on industry-recognized Miller and Lincoln equipment. Project setup, estimating, plasma cutting and more are also part of the training you will receive.

The welding classes at Glen Oaks Community College and Constantine High School will make field trips to trade shows and local manufacturing facilities. Students also participate in SkillsUSA competitions.



Did you know that CTE classes come with high school academic and college Dual Enrollment credit opportunities “built-in”?

High School Graduation Credits: State of Michigan graduation requirements allow CTE classes to meet or be used “in lieu of” certain academic classes (see chart). Note that school districts may have additional graduation requirements above the minimum standards set by the State. See your counselor early to plan your high school schedule!

College Dual Enrollment Requirements: All CTE classes in the St. Joseph County CTE Consortium come with college credit opportunities. Glen Oaks Community College and Southwestern Michigan College have partnered with CTE instructors to help give CTE students a “jumpstart” on a college program. These are FREE credits and transferable in most cases.

CTE PROGRAM	2ND SCIENCE	3RD SCIENCE	FINAL-YEAR MATH	2ND YEAR WORLD LANGUAGE	ONLINE EXPERIENCE	VISUAL, PERFORMING & APPLIED ARTS	COLLEGE DUAL ENROLLMENT CREDITS
AgriScience	X	X	X	X	X		*
Automotive Technologies		X	X	X	X		X
Building Trades		X	X	X	X		**
Computer-Aided Design (CAD)		X	X	X	X	X	X
Computer Coding & Gaming		X	X	X	X		X
Computer Networking		X	X	X	X		X
Graphic Design		X	X	X	X	X	X
Marketing		X	X	X	X		X
Medical Occupations	X	X	X	X	X		X
Welding Technologies		X	X	X	X	X	X

* Six (6) college credits from Michigan State University are available with FFA participation. **Articulated credit from SMC is available for those who pass the CONS 114 exam. See your instructors for details.



DID YOU KNOW

Students attending CTE high schools demonstrate higher rates of on-time graduation and credit accumulation and a greater likelihood of successfully finishing a college prep math sequence.

Statistics show that **6 out of 10** CTE students plan to pursue a career related to the CTE area they're exploring in high school.

Students enrolled in CTE courses are significantly more likely to develop problem-solving, project completion, research, communication, time management and critical thinking skills during high school.

The average **high school graduation** rate in 2012 for CTE concentrators was 93 percent nationally and 98 percent in St. Joseph County, compared to the national adjusted cohort graduation rate of 80 percent.

600,000 high school students enroll in dual-credit CTE courses to earn college credit.

More than 88% of CTE students are planning to continue on to postsecondary education.

a world of OPPORTUNITIES

**GREAT SKILLS CAN TAKE YOU PLACES!*



a world of OPPORTUNITIES

GET STARTED HERE

- ◆ **AGRISCIENCE**
- ◆ **AUTOMOTIVE TECHNOLOGIES**
- ◆ **BUILDING TRADES**
- ◆ **COMPUTER-AIDED DESIGN (CAD)**
- ◆ **COMPUTER CODING & GAMING**
- ◆ **COMPUTER NETWORKING**
- ◆ **GRAPHIC DESIGN**
- ◆ **MARKETING**
- ◆ **MEDICAL OCCUPATIONS**
- ◆ **WELDING TECHNOLOGIES**



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**CENTREVILLE - CONSTANTINE - MENDON
STURGIS - THREE RIVERS - WHITE PIGEON**