Royal Oak High School

CTE Programs
1) Visual Imaging & Graphic Communications
2) Medical Skills
3) Engineering Drafting and Design
4) Architectural Drafting and Design
5) Accounting
6) Marketing Management
7) Entrepreneurship
8) Introduction to Video Production
Visual Imaging & Graphic Communication (Completer)

- Required Courses:
  - Visual Imaging – 1
  - Visual Imaging – 2
  - Graph. Comm. – 1
  - Graph. Comm. – 2
  - Graph. Comm. – 3
  - Graph. Comm. – 4

- Additional Courses:
  - Advanced Graph. Comm.
  - 3D Modeling & Animation
  - Tech. Digital Photography

- 3 year program
- Field trips: TedX, Quicken Loans and Arbor Oakland Group
- Various projects: t-shirts, logos, coloring books, cards, etc...
- Math and Visual, Performing and Applied Arts credit
Medical Skills – (Completer)

- Required Courses
  - Medical Skills – 1
  - Medical Skills – 2
  - Medical Skills – 3
  - Medical Skills – 4
- Additional courses:
  - Co–Op
  - Emergency Response
  - Health Care Issues of the 21st Century

- 2 year program
- Basic patient care skills
- Professional vocabulary
- Career speakers
- Field trips
- CPR/ AED & First Aid Skills
- Human Anatomy
- Physiology
- Specific Disease processes
- Nat’l Health Science Assessment Exam
- Articulation credits
- Math and Science Elective credits
Engineering Drafting and Design (Completer)

- Required Courses:
  - Eng. Drafting & Design – 1
  - Eng. Drafting & Design – 2
  - Eng. Drafting & Design – 3
  - Eng. Drafting & Design – 4

- Additional Courses:
  - Engineering 1 & 2

- 2 Year Program
- Hands-on Projects
- Principles of drafting
- Engineering applications to solve design challenges
- Competitions
- Math and Visual, Performing and Applied Arts credit
CAD is 2D & 3D computerized technical drawing. CAD is used to show how manufactured parts made. A great class for students who like to build projects and get hands-on with tools and shop equipment.

- Computer and lab based class that can offer a lot of project freedom.
- Students design many of their own projects.
- Most projects will have full-size or scale models built.
This course is designed to give students a practical introduction to the various disciplines of engineering.

Students will complete projects in Mechanical, Electrical, Manufacturing, Biomedical, Environmental Engineering along with Ergonomics and Power Systems.

Students will apply math and physics to design situations to create designs based on a data-driven decisions.

Students will create a variety of physical models and projects through the course of the semester.

Great course of students who like math/science and want to apply it in practical hands on fashion.
Required Courses:
- Arch. Drafting & Design – 1
- Arch. Drafting & Design – 2
- Arch. Drafting & Design – 3
- Arch. Drafting & Design – 4

Additional Courses:
- Arch. Rendering & Animation

Basic Residential house Design
- Working Drawings
- Multiple unit housing
- Individual and Group projects
- Presentation drawings
- Use of CAD system
- Math and Visual, Performing and Applied Arts credit
Architecture 1 & 2

- Computerized & Lab based class in which students design rooms and houses based on housing requirements.
- A fun class in which students are asked to be creative and design spaces with in a minimum set of project requirements.

- Students will use design theory to create virtual & physical models of residential structures.
- Students will learn to use a variety of materials to design houses, rooms and furniture/accessories.
Business Accounting – (Completer)

- Required Courses:
  - Accounting – 1
  - Accounting – 2
  - Accounting – 3
  - Accounting – 4

- 2 Year Program
  - Skills of Double entry accounting
  - Basic Analysis
  - Basic principles
  - Standard business forms
  - Financial strengths
  - Math and Visual, Performing and Applied Arts credit
Management – (Completer)

- Required Courses:
  - Marketing Mgmt. – 1
  - Business Mgmt. – 1

- 1 Year Program
- How marketing impacts businesses
- Channels of distribution
- Buying and pricing strategies
- How businesses operate
- Product planning
- Operating procedures for small business
- Math and Visual, Performing and Applied Arts credit
Entrepreneurship – (Completer)

- Required Courses:
  - Entrepreneurship – 1
  - Entrepreneurship – 2

- 1 Year Program
- Basic skills in competitive market economy
- Prepare a business plan
- Legal, social and ethical obligations of small business
- Math and Visual, Performing and Applied Arts credit
WOAK Video & Media Production (Completer)

- Required Courses:
  - Introduction to Video Production
  - WOAK Adv. Video and Media Production – 1
  - WOAK Adv. Video and Media Production – 2

- 1–1/2 Years Program
  - Intro to field of video and Television production
  - Write scripts
  - Storyboards
  - Shoot and edit video
  - Public Service announcements
  - Daily live news program
  - Broadcast industry focus
  - Visual, Performing and Applied Arts credit
  - See M. Conrad link for more information
College Credit Available in CTE Programs

- **Graphics Communications** – 3 Credits at Ferris State or 3 Credits at OCC
- **Architectural Drafting/Design** – up to 30 Credits at Davenport University
- **Med Skills** – 2 Credits at FSU or 3 Credits at OCC
- **Business** – 3 Credits at FSU or 4 Credits at OCC or up to 24 Credits at Davenport University
- **Finance** – up to 23 Credits at Davenport University
- **Marketing** – up to 30 Credits at Davenport University
- **Mechanical CAD** – 4 Credits at OCC
Students Who Successfully Complete a CTE program will satisfy these Graduation Requirements:

- 3rd Year of Science
- 4th Year Math/Math–Related
- 1 Credit Visual Performing Applied Arts (VPAA)
- 1 Credit World Language
- PLEASE meet with your counselor regarding this
OSTC–SE Programs

Agriscience & Environmental Technologies: Vet Assistant, Landscaping, Environmental Development, Floral Arranging

Transportation Technology: Automotive Technology (2-year program) and Collision Repair & Refinishing

iTeam: Computer Programming, Networking, Entrepreneurship, Advanced Marketing, Web Development

Construction Technology: Masonry, Plumbing, Framing, Siding, Electrical

Culinary Arts & Hospitality: More than Home Ec. Restaurant management, cooking, serving and preparing all types of cuisine.

Engineering & Emerging Technologies: Machining & Mechatronics

Health Sciences: Optical, Nursing, Dental, Pharmacy Tech, Physical Therapy

Visual Imaging: If you can see it or hear it: it is Visual Imaging.
Current students identified these items as to why they like OSTC

- Trade
- HandsOn
- CollegeReady
- CollegeCareerReady
- NotYourTraditionalSchool
- Skill
- CareerOpportunity
- LearningWithPurpose
- TrainingForHigherPaidJobs
- WorkBase
- EarnCollegeCredit
- Opportunity
- JobRelated
- JobMarket
- Exciting
Oakland Schools Technical Campus

- Attend junior and/or senior year for ½ of your school day (AM or PM)
- Earn high school credit (1.5 credits / semester)
- Extension of your high school
- Free to you and your high school
At OSTC: College & Career Readiness

- Portfolios
- Work Experiences
- Industry Certifications
- College Credit
- Scholarship Opportunities

Coming soon!
- Early College Program
At OSTC: You will earn FREE college credits

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<th>Ferris State University</th>
<th>Henry Ford Community College</th>
<th>Macomb Community College</th>
<th>Mott Community College</th>
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Early College & Apprenticeship

- Apprenticeship – Carpentry / trades
  ◦ Leads you directly into a paid apprenticeship working toward journeyman

- Early College – EET & Collision Technology
  ◦ Receive you Associate degree your 13th year
  ◦ Free
OSTC is for ME

- Fill out a Request for Consideration and turn into your counselor before December 7th
- Meet with your counselor to make sure you have all your credits lined up for graduation.
- Complete or update your EDP on line
- Attend the Open House December 3 with a parent.
- If you are a SOPHOMORE: fill out a showcase selection sheet
CTE

Career and Technical Education

Why?

Traditional: “To help students complete high school.”

Current Goal: “To help students be successful at their next level.”
How Students Should Prepare for Their Future

- Rigorous academic achievement
- Develop 21st Century skills
- Explore/investigate careers
Success in the New Economy

- Strong academic achievement is ESSENTIAL -- but not SUFFICIENT – to forge productive, satisfying careers after high School.

- Each CTE program incorporates academic concepts with project-based instruction to help students practice and master these 21st century skills.
We Must Fuse the 3 R’s with these 21st Century Skills – the 4 C’s:

• Critical thinking/ problem solving
• Communication
• Collaboration
• Creativity and innovation
High-quality Career Technical Education (CTE) programs are to some students what Advanced Placement/Honors classes are to others because of their college credit and dual enrollment components.
The Middle Skills Gap

- 47% of new job openings in the U.S. from 2010 to 2020 will fall into the “middle skills” category – installers, technicians, skilled trades, therapists, computer support specialists and so on. There is a serious shortage of new workers to take those millions of jobs.

- CTE programs provide students with the skills/knowledges for these positions.
70% of 2013 Graduates Left College with an Average of $28,400 in Debt!