SOFTWARE & GAME DEVELOPMENT

Careerline Tech Center

Course Description:

This Information Technology (IT) program explores the knowledge and skills necessary to create software in today's digital environment. First year students will experience a blended environment of both classroom and online learning. The focus will be to establish working knowledge in programming concepts, IT fundamentals, and programming languages such as C#, and HTML5 & CSS3.

- Use modern project management methodologies to create responsive websites, 3D games, and a variety of console applications.

- The optional second year emphasizes independent learning, building on the skills acquired in the first year. Successful students should be self-reliant, adept at using relevant project management methodologies and software, and capable of effectively managing both individual and team projects.

- Additional industry certification opportunities are available to students who accelerate through the course at mastery level.

A student who would benefit from this program is one who possesses strong creativity, a love for storytelling, and the ability to work both independently and collaboratively. Their natural curiosity about how technology around them works and love for solving problems will also make them a perfect addition to the Software and Game Development program.

High School Credit: Students will earn elective credit at their high school upon completion of this course. Please see a high school counselor (based on district decision) for eligibility towards 4th-year math-related credit, VPAA credit, and waived credits for third year science and second year world language.

College Credit: Davenport University: Up to 52 college credits articulation for two years; Muskegon Community College: 9 credits of direct credit offered; more to come.

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LENGTH OF PROGRAM
1 year with 2nd year option

Instructor:
Emmanuel Martinez
mmartine1@oaisd.org

ParaPro:
Collin Luyk
cluyk@oaisd.org

Related Careers with 2022 Median Annual Pay from O*Net

- Software Developers $127.260
- Computer Programmer $ 97,800
- Video Game Designer $ 83,240
- Web and Digital
  Interface Designer $78,580
- And many more

Experience the CTE Difference!

TO ENROLL
bit.ly/CTCenroll

QUESTIONS?
Contact Jannette Bole
jbole@oaisd.org

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Careerline Tech Center
13663 Port Sheldon Street | Holland | 616-738-8950

Course Outline:

1st Semester: Productivity Software, Computing Fundamentals, Web Design, Web Development, Intro to Programming, Project Management, Project-based Learning, Advanced HTML5 and CSS.

2nd Year, 1st Semester: Software Engineering for Beginners, Project Management (Agile), JavaScript, and Project-based Learning.

2nd Semester: Living Online, IT Fundamentals+, Web Development, Intro to C# Programming, Intro to Game Development, Career and Employability Unit, Customer Service, Project Management.

2nd Year, 2nd Semester: Project Management (Agile), JavaScript, PHP and MySQL Web Development, Project-based Learning.

Resources Used:

uCertify: IT Specialist: HTML & CSS, IC3 GS5, CompTIA ITF+, IT Specialist JavaScript, IT Specialist Databases, Starting out with Programming Logic & Design; Google Classroom: Customer Service; Azure: Azure DevOps for Agile Development, Azure Cloud Services for hosting databases, web applications, and app services; Game Engine: Unity; GitHub Classroom; GitHub Codespaces; Microsoft Visual Studio and Microsoft Visual Studio Code; Google Keep; MS Office; Google Suite; Google Classroom; Blender; and Adobe Photoshop.

Postsecondary Partners:
Davenport University and Muskegon Community College.

Work-Based Learning: All students at CTC have the opportunity to participate in experiences such as guest speakers, tours, and work experiences that connect them with local employers in their program area. Achieving students who exhibit strong interpersonal skills may be eligible for internships and capstone opportunities.

Safety Trainings Provided: Online Safety, Computer Repair Safety.

Student Leadership Opportunities: Students can participate in activities with classmates and outside community partners to strengthen their leadership skills through a community service project with Toys for Tots.