

# Programming

## Curriculum Plan 2022-2023

Area of Concentration: N3

CTSO: BPA

### Program Courses

EMIS Course Code	Course Name	Grade	Is this course a CTAG?
145005	Information Technology	10	No
145060	Programming	11	Yes
145065	Object Oriented Programming	11	No
145090	Game Design	12	No
145015	IT Capstone	12	N/A

### Industry Credentials/Certifications

Industry Credentials Offered	ODE Points Available	Completed during Grade
TBD		

### College Credit Opportunities

Course Name	College	Credit Hours	Completed during Grade
CTPROG001 Computer Logic	CTAG	3	11
CTPROG002 Java Programming	CTAG	3	11

### Work-Based Learning Opportunities

CTSO Competitions	
On the job placement opportunities	

### Tasks

- Modify software programs to improve performance.
- Write computer programming code.
- Test software performance.
- Resolve computer software problems.
- Collaborate with others to resolve information technology issues.
- Develop diagrams or flow charts of system operation.
- Develop models of information or communications systems.
- Document design or development procedures.
- Train others in computer interface or software use.
- Test computer system operations to ensure proper functioning.
- Prepare instruction manuals.
- Assign duties or work schedules to employees.
- Manage information technology projects or system activities.
- Supervise information technology personnel.
- Design websites or web applications.
- Develop computer or online applications.
- Teach others to use computer equipment or hardware.
- Coordinate project activities with other personnel or departments.

# PROGRAMMING AND GAME DESIGN

## Program of Study

Aligned with Sinclair – Computer Information Systems/Software Development  
SODE.S.AAS

Secondary	9	English 9	Algebra I or Geometry	Physical Science	World History	PE/PE	Health/ Career Exploration	Elective
	10	English 10	Geometry or Algebra II	Biology	U.S. History	Elective	Information Technology 145005	
	11	English 11	Algebra II or Pre-Calculus	Chemistry or Environmental Science	American Government	Elective	<b>Programming 145060</b>	Animation 145115
	12	English 12	Adv Math	Elective	Elective	Elective	Game Design 145090	IT Capstone 145015

Post-Secondary	Fall Year 1	CIS 1107 Intro Operating Systems	CIS 1130 Network Fundamentals	ENG 1101 English Composition I	MAT 1120 Business Math	BIS 1120 Intro to Software Apps	SCC 1101 First Year Experience
	Spring Year 1	CIS 1111 Intro Prob Solv Comp Prog	CIS 1350 Web Dev HTML & CSS	MAN 2150 Management & Org Behavior	ECO 2160 Macroeconomics	COM 2225 Small Group Communication	
	Fall Year 2	CIS 1202 C++ Software Devel	CIS 2212 Java Software Dev I	CIS 1140 Info Sys Analysis & Desn	CIS 2165 Database Management	ACC 1100 Small Business Accounting	
	Spring Year 2	CIS 2217 Java Software Dev II	CIS 222 ASP.NET with C#	CIS 2170 CIS Internship	CIS 2268 Intro to Oracle	HUM 1130 Humanity & Technology	

Key	Required Course	Recommended Elective Courses	High School Career-Technical Courses <b>Bold =College Credit Opportunity</b>
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Dayton Public Schools does not discriminate on the basis of race, color, national origin, sex, disability, or age for participation in any program or activity. Lack of English language proficiency will not be a barrier to admission and participation in career-technical education programs.