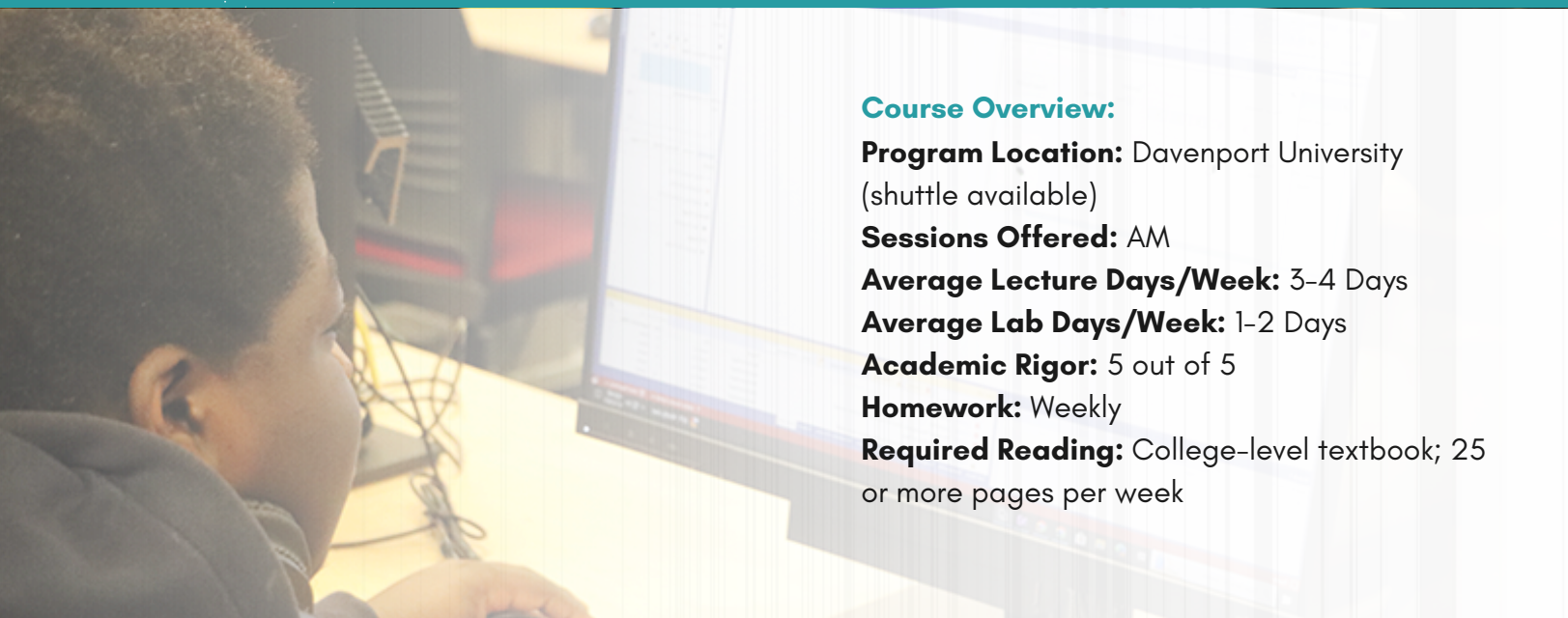# GAME DESIGN & PROGRAMMING
BUSINESS, MANAGEMENT, MARKETING AND TECHNOLOGY

Course Overview:

Program Location: Davenport University (shuttle available)

Sessions Offered: AM

Average Lecture Days/Week: 3-4 Days

Average Lab Days/Week: 1-2 Days

Academic Rigor: 5 out of 5

Homework: Weekly

Required Reading: College-level textbook; 25 or more pages per week

Course Description

This comprehensive program encompasses various aspects of business systems and software development. It introduces the systems development life cycle (SDLC) phases and explores their application in addressing common business needs such as inventory, payroll and marketing. Students gain hands-on experience through group projects, site visits or case studies. Additionally, the course covers fundamental programming concepts, object-oriented programming, data structures and problem-solving. It also introduces game development, focusing on methodologies, team roles and project progression. Lastly, the course delves into mobile application development, teaching design, testing and deployment while highlighting the differences between mobile and desktop application design.

Student Leadership Opportunities

Students have the opportunity for leadership, competition and community service through membership in DECA.

Success Indicators

- Familiar with basic computer and application skills to solve business problems
- Detailed oriented
- Analytical thinker
- Action oriented
- Dependable
- Effective in a team setting

Learning outcomes include, but are not limited to:

- Understand and apply the five phases of the SDLC.
- Analyze and design solutions for typical business system needs.
- Demonstrate proficiency in fundamental programming concepts.
- Develop problem-solving skills using structured programming techniques.
- Gain hands-on experience with group dynamics in project environments.
- Design and implement game development projects using team roles.
- Apply game development methodologies in real-world scenarios.
- Develop, test, and deploy mobile applications.
- Understand the differences between mobile and desktop application design.
- Strengthen skills in designing systems for practical applications.

College Credits (12)

- CISP 111 – Requirements Planning and Development (3)
- CSCI 231 – Introduction to Programming (3)
- CSCI 258 – Introduction to Game Design and Theory (3)
- CISP 340 – Mobile Applications Development (3)

Updated 12.2025

GAME DESIGN & PROGRAMMING

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PROFESSIONAL CAREERS

- Applications Specialist
- Artificial Intelligence Specialist
- Chief Information Security Officer
- Computer Forensics
- Computer Programmer
- Computer Systems Analyst
- Server Support Specialist
- Video Game Programmer

TECHNICAL CAREERS

- Java Developer
- Media Designer
- Programming/Software Engineer
- Robotics Technician
- Systems Engineer
- Systems Administrator/Technician
- Video Game Designer
- Web Designer/Developer

ENTRY-LEVEL CAREERS

- Computer Support Intern
- Database Administration Associate
- Help Desk Specialist
- Information Technology Specialist
- Junior Programmer
- Junior Web Developer
- Technology Reviewer
- User Support Specialist

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Scan the QR code below to learn more and watch the program video.

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Capital Region Technical Early College (CRTEC)

Students enrolled in this program may choose to participate in the CRTEC program. This is a high school-to-college program where students start in grade 11 and end their 13th year with a degree or certification. This program gives students relevant career related experiences.

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