

# COMPUTER PROGRAMMING AND GAME DESIGN FUNDAMENTALS, CERTIFICATE OF TRAINING

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The Certificate of Training in Computer Programming and Game Design Fundamentals provides students with an understanding of techniques and tools used in software development, video game design, and other computer science pathways.

## Learning Outcomes

Upon successful completion of the program, students will be able to:

- Write simple computer programs using structured and object-oriented programming techniques in Python, Java, and C++.
- Design a computer video game that incorporates 2D computer graphics, animation, sound, and music.

## Certificate of Training Requirements

| Code                 | Title                               | Units     |
|----------------------|-------------------------------------|-----------|
| <b>Required Core</b> |                                     |           |
| CSIS 1               | Computer Information Systems        | 3         |
| CSIS 9               | Programming Fundamentals: Python    | 3         |
| CSIS 10A             | Programming Methods I: Java         | 4         |
| CSIS 10C             | Programming Methods I.5: C and C++  | 4         |
| CSIS 114             | Game Programming: Behind the Scenes | 1         |
| <b>Total Units</b>   |                                     | <b>15</b> |

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including Reading and Writing, Mathematics, Information Competency, and General Education requirements.

MPC "Ready to Work" Career Education programs offer students the opportunity to gain knowledge and skills needed for employment and job advancement.

All students should consult with a Counselor to discuss career pathways, for support with career exploration and planning, and to create a personalized education plan to help them meet their academic, career, and personal goals. Visit MPC's Counseling website for more information about Counseling services provided by MPC and to connect with a Counselor.

Additional resources are available through MPC's Career & Transfer Resource Center (CTRC). The CTRC offers career resources, workshops, guidance and referrals. Visit the CTRC for support finding online career information and other resources to explore majors, occupations, and employment information.