

## Web Based 2D Game Development CERTIFICATE

### Program Overview

This is a 24 credit certificate program exploring video game creation. The certificate is ideal for students who want to acquire skills needed for game design and programming. The certificate will utilize HTML5, Javascript, Tumult Hype and Phoneygap to recreate classic video games for both the Desktop and mobile platforms. The capstone class will introduce students to some of the concepts of mobile app development for both the iPhone and Android platforms. This certificate may be completed apart from a degree program or may be selected as an emphasis in the Computer Programming AAS degree.

The student should have above average communications and math skills. He/she should exhibit qualities of patience, perseverance, and preciseness, and should enjoy working in a team environment and also be able to work independently. All programs emphasize training for industry certification.

### Career Opportunities

Graduates find excellent opportunities as computer programmers in business, manufacturing, government and education. Jobs for computer programmers for all types of computer systems are found throughout the country with opportunities for good earning and rapid advancement.

### Program Outcomes

1. Graduates will design and code gaming software applications.
2. Graduates will apply industry standard design skills to support their applications.
3. Graduates will apply design and programming skills to non-game web projects.
4. Graduates will apply best practices for performing effective web usability tests.

### Program Faculty

Darren Pearson  
darren.pearson@sainpaul.edu

### Program Requirements

Check off when completed

This program is designed for individuals who have computer programming knowledge or are currently employed in the computer programming field.

Course	Cr
<input type="checkbox"/> CSCI 1450 Web Fundamentals/HTML	4
<input type="checkbox"/> CSCI 2440 Client Side Programming 1	4
<input type="checkbox"/> DGIM 2521 2D Web Animation	2
<input type="checkbox"/> DGIM 2530 Web Based Game Design 1	4
<input type="checkbox"/> DGIM 2531 Web Based Game Design 2	4
<input type="checkbox"/> DGIM 2586 Digital Sound	2
<input type="checkbox"/> DGIM Technical Elective(s)	4
Any 4 credits of DGIM classes will be allowed, although the following classes are recommended.	
DGIM 1483 Photoshop 1 - 2cr	
DGIM 1484 Photoshop 2 - 2cr	
DGIM 1490 3D Animation Fundamentals - 4cr	
DGIM 2560 Illustrator - 4cr	

**Total Program Credits** .....24

### Program Start Dates

Fall, Spring, Summer

### Course Sequence

The following sequence is recommended for a part-time student. Not all courses are offered every semester. Please contact the Program Faculty for course sequence.

#### First Semester

CSCI 1450 Web Fundamentals/HTML	4
DGIM 2521 2D Web Animation	2
<b>Total Semester Credits</b>	<b>6</b>

#### Second Semester

CSCI 2440 Client Side Programming 1 (spring only)	4
DGIM Technical Electives	2
<b>Total Semester Credits</b>	<b>6</b>

#### Third Semester

DGIM 2530 Web Based Game Design 1 (fall only)	4
DGIM 2586 Digital Sound (fall only)	2
<b>Total Semester Credits</b>	<b>6</b>

#### Fourth Semester

DGIM 2531 Web Based Game Design 2 (spring only)	4
DGIM Technical Electives	2
<b>Total Semester Credits</b>	<b>6</b>

**Total Program Credits** .....24

*See back of this guide for Course Chart*

### Minimum Program Entry Requirements

Students entering this program must meet the following minimum program entry requirements:

**Reading:** Score of 250+ or grade of "C" or better in READ 0722 or READ 0724 or EAPP 0900

**Writing:** Score of 250+ on Reading Comprehension or grade of "C" or better in ENGL 0922 or EAPP 0900

**Quant. Reasoning, Algebra & Stats:** Score of 250+ or **Adv. Algebra & Functions:** Score of 215+ or grade of "C" or better in MATH 0910

#### Assessment Results and Prerequisites:

Students admitted into Saint Paul College programs may need to complete additional courses based on assessment results and course prerequisite requirements. Certain MATH, READ, and ENGL courses have additional prerequisites.

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*Information is subject to change.  
This Program Requirements Guide is not a contract.*

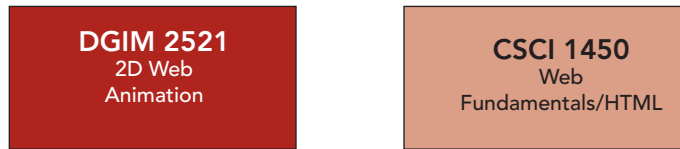
# Web Based 2D Game Development CERTIFICATE *(continued)*

(24 credits)

The below chart illustrates the courses required for completion of this certificate.

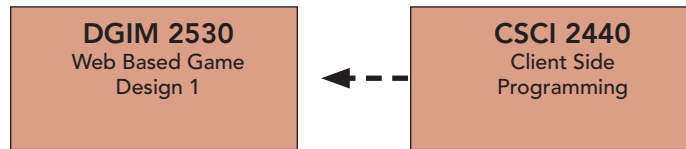
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## Introductory




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## Intermediate




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## Advanced

(offered once per year)

