

VR/AR DESIGN AND DEVELOPMENT DIPLOMA

Purpose

The Virtual Reality (VR) and Augmented Reality (AR) Design and Development Diploma is a joint program where two terms of content will be delivered at VCC and the other two terms delivered at Vancouver Film School. This diploma program is a progressive emerging technologies curriculum which has three core goals and objectives. First, students will explore and analyze VR/AR applications and enhance their art, design, programming and storytelling skills. Second, students will develop VR/AR applications for various industries including health care, civic, technology, education, architectural, aerospace, forestry, mining, real estate, and entertainment. Third, students will develop, create and present an industry quality VR/AR portfolio. Graduates of this program will be ready to work in the technology industry creating VR/AR experiences.

Duration

The program is 16 months, spread over four consecutive terms. The maximum time for completion of terms 2 through 4 is 20 months, where students could register in the practicum up to a maximum of 8 months after completion of term 3. This requirement is due to the rapid evolution of technology in this area.

Learning Outcomes

Upon successful completion of this program, graduates will be able to:

1. Develop authentic, believable, and compelling VR/AR experiences for applications in industry.
2. Apply project management processes (e.g., research, conceptualization, planning and execution) to explore and analyze visual and experiential problems.
3. Use production tools, programming, and game engines to create immersive experiences.
4. Critically assess artistic and technical challenges and apply appropriate problem solving techniques.
5. Set and achieve industry aligned performance goals.
6. Demonstrate consistent and reliable production practices.
7. Produce and present a professional quality VR/AR portfolio.
8. Communicate and work effectively in a team in the technology sector.

Admission Requirements

- Grade 12 graduation or equivalent
- English 12 with a minimum 'C+' grade or equivalent
- English Language Proficiency (<https://www.vcc.ca/applying/registration-services/english-language-proficiency-requirements/>) assessed at English 12 'C+'
- Pre-calculus 12 with a minimum 'B' grade or equivalent

Please note that individual courses may have additional pre-requisites.

Program Requirements

Term One		Credits
Term 1 is completed at VCC		
SCIE 1110	Professional Communication	3
CMPT 1010	Intro to Comp Programming 1	3
CMPT 1030	Introduction to Game Engines	3
CMPT 1040	Intro to 2D/3D Asset Creation	3
Elective in the School of Arts and Sciences University Transfer department		3
Credits		15
Term Two		Credits
Term 2 is completed at Vancouver Film School		
Trends in VR/AR Development		3
Human Centred Design		3
Asset Creation for VR/AR		3
Unity 1		3
Unreal 1		3
Production Team		3
Data Structures and Algorithms		3
Credits		21
Term Three		Credits
Term 3 is completed at Vancouver Film School		
Understanding VR/AR		3
User Experience and Interface Design		3
VR/AR Client Project		3
Unity 2		3
Unreal 2		3
Data Visualization		3
Final Project		3
Final Project Polish and Presentation Lab		
Credits		21
Term Four		Credits
Term 4 is completed at VCC		
CMPT 2030	Industry Practicum	19
Credits		19
Total Credits		76

Note: Students must declare their intention of completing the VR/AR Design and Development Diploma prior to taking courses. Courses are open to any student who meets the general and specific requirements for the course.

Evaluation of Student Learning

Evaluation of the student is determined by the instructors (with feedback from the industry mentor for CMPT 2030) and may include a combination of assignments, tests, projects, theory exams and/or practical exams. Students are required to maintain a minimum GPA of 2.3 (65%) in each term to progress to the next term of the program. A minimum grade of C (60%) must be achieved in each course, and a minimum overall GPA of 2.3 (65%) must be achieved to receive the VR/AR Design and Development Diploma.

Note: VFS has specific requirements for attendance and professionalism. See the course outlines and VFS student handbook for details.

Prior Learning Assessment and Recognition (PLAR)

Yes. PLAR is available for CMPT 1030 and CMPT 1040 after discussion with the department leader and review of the student's portfolio.

Transcript of Achievement

The evaluation of learning outcomes for each student is prepared by the instructor (with feedback from the industry mentor for CMPT 2030) and reported to the Student Records Department at the completion of each term.

The transcript typically shows a letter grade for each course. The grade point equivalent for a course is obtained from letter grades as follows:

Grading Standard

Grade	Percentage	Description	Grade Point Equivalency
A+	90-100		4.33
A	85-89		4.00
A-	80-84		3.67
B+	76-79		3.33
B	72-75		3.00
B-	68-71		2.67
C+	64-67		2.33
C	60-63		2.00
C-	55-59		1.67
D	50-54	Minimum Pass	1.00
F	0-49	Failing Grade	0.00
S	70 or greater	Satisfactory – student has met and mastered a clearly defined body of skills and performances to required standards	N/A
U		Unsatisfactory – student has not met and mastered a clearly defined body of skills and performances to required standards	N/A
I		Incomplete	N/A
IP		Course in Progress	N/A
W		Withdrawal	N/A
Course Standings			
R		Audit. No Credit.	N/A
EX		Exempt. Credit granted.	N/A
TC		Transfer Credit	N/A

Grade Point Average (GPA)

- The course grade points shall be calculated as the product of the course credit value and the grade value.
- The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or term.
- Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.