Seneca POLYTECHNIC

2024-2025

3D ANIMATION (DAN)

About the Program

This eight-month graduate certificate program will allow you to study 3D computer-based modelling and animation using high-end computer workstations, software and tools. You will learn the principles of animation to develop and master your knowledge of lighting, texturing and rendering, and fundamental elements of 3D animation.

Credential Awarded

Ontario College Graduate Certificate

Duration

2 Semesters (8 Months)

Starts

January, September

Program and Course Delivery

This program is offered in Seneca's hybrid delivery format. Some coursework is online and some must be completed in person. Students will need to come on campus to complete in-person learning requirements.

Skills

Throughout this program you will develop the following skills:

- Animation
- Modeling
- Rigging
- Lighting
- Rendering
- Compositing

Additionally, you will learn project development skills and storyboard drawing techniques necessary to succeed in the field of 3D animation.

Your Career

Graduates of the program can explore the following career options:

- Digital animator
- Modeler
- Character rigger
- 3D painting/texturing and lighting specialist

You may pursue careers in film, television, gaming, forensic, animation, interior design and industrial design.

Affiliations/Associations

- Toronto Animation Arts Festival International (TAAFI)
- Association for Computing Machinery's Special Interest Group on Computer Graphics (ACM SIGGRAPH)
- Computer Animation Studios Ontario (CASO)

Program of Study

Course Code	Course Name	Weekly Hours
Semester 1		
ACT351	Acting for Animators	2
ANI101	Animation Principles	4
MAY721	Modeling I - Concepts	3
MAY724	Animation Tools	3
MAY730	Basic Rigging	3
MAY740	Lighting, Texturing and Rendering	3
MGL102	Life Drawing I	4
STR121	Storyboarding - Film Principles	2
Semester 2		
DGT471	Advanced Digital Tools	2
MAY681	Project Development	2
MAY821	Advanced Modeling	2
MAY823	Lighting and Rendering	3
MAY824	Advanced Character Animation	3
MAY825	Dynamics/MEL	3
MAY830	Advanced Rigging	2
MGL202	Life Drawing II	4

Program Learning Outcomes

This Seneca program has been validated by the Credential Validation Service as an Ontario College Credential as required by the Ministry of Colleges and Universities.

As a graduate, you will be prepared to reliably demonstrate the ability to:

- Execute creative concepts and ideas through a variety and combination of techniques including hand drawn, computer generated, 2D and 3D storyboards and animatics.
- Create sophisticated models for the entertainment, medical, and architectural industries.
- Create 3D characters and creatures ranging from life-like and anatomically correct, to cartoon and anime styles.
- Combine texture mapping, shaders, lighting environments, animating cameras and ‘rigs’ for 3D models and characters in animation sequences.
- Synthesize a wide variety of digital effects in the creation of environment and creature materials and textures.
- Apply 3D techniques that demonstrate characters with realistic motion and a full range of emotion in animated characters.
- Incorporate 3D animated characters with composited backgrounds utilizing special effects.
- Utilize a variety of digital applications including video and audio editing software and technologies.
- Integrate sophisticated technologies into 3D animated films, videos and games.

Admission Requirements

- Ontario university or college degree, or college diploma, or equivalent in fine art, 2D/3D animation, photography, film/video, architecture, or graphic design.

Applicants with an equivalent combination of partial postsecondary and/or three to five years related work experience may be considered for admissions. A relevant resumé and references must be provided.

- English proficiency (https://www.senecapolytechnic.ca/registrar/canadian-applicants/admission-requirements/english-proficiency.html) for Graduate Certificate

Canadian citizens or permanent residents educated outside of Canada must provide a World Education Services (WES) or ICAS Canada credential evaluation.

Notes

Although not required for admission, the following are recommended for your success in the program:

- A background in one of more of the following: visual arts, classical animation, fine art, graphic design, or architecture/engineering or computer graphics
- Experience with Windows operating systems
- Additional experience with Adobe Photoshop, After Effects, Premiere or any 3D program.

International Student Information

International admissions requirements vary by program and in addition to English requirements (https://www.senecapolytechnic.ca/international/apply/how-to-apply/admission-requirements/english-requirements.html), programs may require credits in mathematics, biology, and chemistry at a level equivalent to Ontario's curriculum, or a postsecondary degree or diploma, equivalent to an Ontario university or college. Program-specific pre-requisite courses and credentials are listed with the admission requirements on each program page. To review the academic requirements please visit: Academic Requirements - Seneca, Toronto, Canada (senecapolytechnic.ca) (https://www.senecapolytechnic.ca/international/apply/how-to-apply/admission-requirements/academic-requirements.html).

Pathways

As a leader in academic pathways, we offer a range of options that will allow you to take your credential further in another Seneca program or a program at a partner institution.

To learn more about your eligibility, visit the Academic Pathways (https://www.senecapolytechnic.ca/pathways.html) web page.

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