

## 3D Graphics Technology

<https://www.rit.edu/ntid/study/3d-graphics-technology-aas>

[rit.edu/ntid/nce](http://rit.edu/ntid/nce)

### Program Overview for Employers

The AAS degree in 3D Graphics Technology (3DGT) introduces concepts related to three-dimensional (3D) graphics, and teaches students the creative and technical skills required to produce 3D graphics, 3D prints, environmental renderings that range from artistic to photorealistic in quality, and 3D models used in multimedia and animation. A combination of traditional design skills and digital design techniques are taught, along with the representation of concepts of time, motion, and lighting principles.

#### Degrees Awarded

- Associate in Applied Science (AAS)

#### Potential Job Candidates

Approximately 20 students currently are enrolled. The 3DGT program accepts a 10-student cohort each year, and there will be a maximum of 30 students enrolled in the program at any one time.

#### Cooperative Education (Co-op) Experience Required

Students are required to complete one co-op experience usually in a 10-12-week block. This full-time co-op assignment allows them to gain real world experience working in the 3D graphics industry. Upon satisfactory completion of their co-op, students complete a portfolio development course and a capstone course, where they work individually or part of a team on research or client-based projects for the RIT campus and external clients.

#### Equipment and Facilities

Students in the 3D Graphics Technology program develop and refine their skills in a state-of-the-art computer lab equipped with industry-standard Windows workstations and high-resolution displays. Students have access to 3D Printers and have a partnership with labs on the RIT campus where they can access motion capture systems, high-end cameras, and film and animation studios.

#### Student Skills and Capabilities – Preparation for a Career

The 3D Graphics Technology (3DGT) program for deaf and hard-of-hearing students from the Visual Communications Studies department at the Rochester Institute of Technology (RIT) prepares students for either of two educational and career options: finding an entry-level job in the 3D graphics industry after graduating with their AAS degree, or continuing their collegiate studies towards a baccalaureate degree in the 3D Digital Design program in the College of Art and Design at RIT.

The 3DGT program offers a schedule of courses that address the discipline areas of 3D modeling, lighting and texturing, animation, motion capture, mixed reality applications, and 3D printing in the 3D graphics field by the use of state-of-the-art software and hardware in the classroom.

Students learn how to work on various tasks in the 3D graphics production workflow, learn 3D modeling concepts for on-screen and 3D printing use, prepare models for rendering and output for use in print media, electronic media, and in motion graphics. They also acquire skills in 3D animation and pre-visualization, and are ready to work in the animation, graphics, architecture, and film industries. Most importantly, students learn to work individually and as part of a team on various responsibilities throughout the production workflow.

# 3D Graphics Technology

## **Selected Software and Hardware Used to Develop Technical Skill**

### **Applications Software**

- Adobe Creative Cloud Software Suite
- Autodesk Software Suite
- Final Cut Pro
- Microsoft Office
- Pixologic ZBrush
- Red Giant Software plug-ins
- Variety of task-specific applications and utilities for animation, video, Mixed Reality, 3D printing, and 3D Graphics rendering

### **Selected Hardware and Equipment**

- Boxxtech Apexx2 workstations
- MakerBot 3D printers
- RenderBoxx rendering stations
- Stratasys Objet24 3D printer

## **Selected Technical Courses Leading to an Associate in Applied Arts Degree**

- Advanced 3D Modeling and Techniques
- Basic 3D Modeling
- Capstone
- Design Drawing
- Employment Seminar
- Intermediate 3D Modeling and Techniques
- Portfolio Workshop
- Principles of Design and Color
- Principles of 4D Design
- Professional Practices
- Raster and Vector Graphics
- 3D Lighting and Materials
- 3D Motion
- 3D Printing

## **The following employers throughout the country have hired 3D Graphics Technology students:**

NTID MoCap  
DeafWay Global, Inc.  
RIT/NTID Center on Access Technology  
Sign World Media

### **Contact Us:**

#### **Beth Karbowski Noworatzky**

#### **Employment Specialist**

NTID Center on Employment  
52 Lomb Memorial Drive  
Rochester, NY 14623-5604  
585-301-4959 (videophone)  
585-475-7570 (fax)  
bjknai@rit.edu (email)

RIT/NTID co-op students, graduates and alumni provide employers with highly trained, highly motivated employees with excellent skills. We appreciate your interest in our co-op students and graduates and will work with you through the recruiting process to help you hire the right employee. **For your convenience, access further information and services on our website at [www.rit.edu/ntid/nce](http://www.rit.edu/ntid/nce).** 06/2020