

COMPUTER GRAPHICS TECHNOLOGY

Computer Graphics Technology: Graphic Design AAS Degree

Credentials

Foundation skills certificate	18 cr.
3D Animation certificate	33 cr.
Digital Art certificate	28 cr.
Interactive Media and Game Design certificate	29 cr.
Publishing certificate	29–30 cr.
Video Graphics certificate	30 cr.
Web Design certificate	30 cr.
3D and Video Graphics AAS degree	65 cr.
Digital Art AAS degree	60 cr.
Graphic Design AAS degree	61–62 cr.
Interactive Media and Game Design AAS degree	61 cr.
Post-associate certificate	16–20 cr.

Major Description

If the prospect of a career that blends art and technology appeals to you, we have four options that will prepare you for work in the high-tech, high-style field of digital graphic design.

In each program you'll learn how to use professional level software, hardware and peripherals and to apply the principles of design, typography, and color theory to the creation of effective visual communication.

We have four options that can take you from novice to knowledgeable:

- Our foundation skills certificate will introduce you to the basics of art and design along with the latest graphics software.
- Our certificate programs allow you to select a specialty and focus on animation, digital art, video graphics, publishing, Web design, or interactive media and game design.
- Our associate in applied science degree—offered in 3D and video graphics, digital art, graphic design, and interactive media and game design—features three capstone courses for synthesizing what you've learned: a portfolio class, an internship working with area businesses, or an honors-level project.
- Already earned a degree but hungry for more? Our post-associate certificate program allows you to develop a computer graphics specialty while updating your knowledge of the newest techniques and technologies.

Job Titles & Median Salaries or Hourly Rates

- Graphic Designer: \$43,500 (national)
- Web Page Designer: \$55,068 (Michigan)

The computer graphics technology programs prepare students for a career in the fields of graphic design and computer graphics. Students learn how to use professional level software, hardware and peripherals, and to apply the principles of design, typography, and color theory to the creation of effective print- and electronic-based visual communication. It is highly recommended that students meet with faculty for advice in selecting their electives.

All courses are not offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them. Students who satisfactorily complete all college and program requirements qualify for an associate in applied science degree. Students wishing to pursue a post-associate certificate must have a computer graphics technology associate degree or equivalent professional experience.

SAMPLE SCHEDULE OF COURSES

First Year—Fall semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop	3
ENG 101	English Composition 1	3
CGT 136	Web Design and Development 1	3

Total Credits 15

First Year—Winter Semester

MATH 113	Intermediate Algebra for College Students	4
CGT 127	Publishing—InDesign	3
CGT 163	Web Design and Development 2	3
ENG 102	English Composition 2	3
COMA 103	Fundamentals of Speech	3

Total Credits 16

Second Year—Fall Semester

CGT 161	History of Graphic Design	3
Track Option	Select 1	3
Publishing Track:	CGT 149 Typography	
Web Track:	CGT 211 Flash	
Track Option	Select 1	2–3
Publishing Track:	CGT 166 Photography	
	CGT 157 Prepress	
Web Track:	CGT 234 Web Design and Development 3	
CGT 226	Digital Imaging 2—Photoshop	3
BUS 122	Advertising	3

Total Credits 14–15

Second Year—Winter Semester

CGT 257	Portfolio Preparation	3
Track Option	Select 1	3
Publishing Track:	CGT 231 Electronic Publishing	
Web Track:	CGT 237 Dynamic Web Design With ColdFusion	
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	

Total Credits 16

PROGRAM TOTAL 61–62 CREDITS

* These classes are offered as independent learning. Contact CGT faculty.

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

**Computer Graphics Technology:
Web Design Certificate**

The technology of the Internet is constantly evolving both in terms of delivery infrastructure and website development tools. To stay abreast of these technological advances requires programming and design knowledge, skills and experience. A good site must include both quality visual communication design and functionality. Programming is needed for interactivity to search databases and track usage. Visual graphic design is needed to convey the content message and provide branding for products and services.

This certificate is designed to provide students with an overview of the technical programming and graphic design areas for web page development.

All courses are not offered each semester. Students should work with an academic advisor or counselor to develop a schedule that will work for them. Students who satisfactorily complete the program requirements qualify for a certificate of program completion.

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 136	Web Design and Development 1	3

Total Credits 12

First Year—Winter Semester

CGT 127	Publishing—InDesign.....	3
CGT 161	History of Graphic Design	3
CGT 163	Web Design and Development 2	3
CGT 211	Flash	3

Total Credits 12

Second Year—Fall Semester

CGT 234	Web Design and Development 3	3
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Total Credits 3

Second Year—Winter Semester

CGT 237	Dynamic Web Design With ColdFusion.....	3
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Total Credits 3

PROGRAM TOTAL 30 CREDITS

**Computer Graphics Technology:
Publishing Certificate**

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 127	Publishing—InDesign.....	3
CGT 149	Typography	3

Total Credits 15

First Year—Winter Semester

CGT 161	History of Graphic Design	3
CGT 136	Web Design and Development 1	3
CGT 166 or	Photography.....	3
CGT 157	Prepress.....	2
CGT 226	Digital Imaging 2—Photoshop.....	3
CGT 231	Electronic Publishing.....	3

Total Credits 14–15

PROGRAM TOTAL 29–30 CREDITS

**Computer Graphics Technology Foundation
Skills Certificate**

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 127	Publishing—InDesign.....	3
CGT 161 or	History of Graphic Design	3
CGT 244	History of Animation	3
CGT Elective	3

PROGRAM TOTAL 18 CREDITS

**Computer Graphics Technology
Post-Associate Certificate**

The post-associate certificate is for those students who have a degree in computer graphics and/or are working in the profession and wish to add an additional area of specialty to their portfolio. Students should take a combination of 6 courses based on the specific area of study. It is highly recommended that CGT faculty be consulted when selecting courses. Students can assemble courses to develop expertise in interactive media and game design, digital art, web design, publishing, video graphics, graphic design, or 3D animation.

ART 105	Basic Drawing.....	3
ART 115	Art History 1	4
ART 116	Art History 2	4
ART 125	Life Drawing 1	3
ART 243	Sculpture 1	3
CGT 136	Web Design and Development 1	3
CGT 141	Introduction to Interactive Media and Game Design.....	3
CGT 149	Typography	3
CGT 154	Sound Editing for Graphic Artists.....	2
CGT 157	Prepress.....	2
CGT 163	Web Design and Development 2	3
CGT 166	Photography.....	3
CGT 168	Storyboarding.....	3
CGT 206	Scripting for Interactive Media and Game Design.....	3
CGT 208	Digital Video Production.....	3
CGT 210	Visual Effects Production	3
CGT 211	Flash	3
CGT 212	Flash Action Scripting.....	3
CGT 215	Motion Graphics 1—After Effects.....	3
CGT 226	Digital Imaging 2—Photoshop.....	3
CGT 231	Electronic Publishing.....	3
CGT 234	Web Design and Development 3	3
CGT 237	Dynamic Web Design With ColdFusion	3
CGT 242	Advanced Interactive Media and Game Design	3
CGT 244	History of Animation	3
CGT 246	Motion Graphics 2—After Effects.....	3
CGT 247	3D Animation—Introduction	3
CGT 252	3D Animation—Animating.....	3
CGT 254	3D Animation—Advanced Models and Textures.....	3

PROGRAM TOTAL 16–20 CREDITS

Computer Graphics Technology: Digital Art AAS Degree

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
ART 105	Basic Drawing	3
CGT 125	Digital Imaging 1—Photoshop	3
ENG 101	English Composition 1	3
MATH 113	Intermediate Algebra for College Students.....	4

Total Credits 16

First Year—Winter Semester

CGT 123	Illustration—Illustrator	3
CGT 127	Publishing—InDesign.....	3
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
ART 125	Life Drawing 1	3

Total Credits 13

Second Year—Fall Semester

CGT 226	Digital Imaging 2—Photoshop.....	3
ENG 102	English Composition 2.....	3
ART 205	Life Drawing 2	3
Art	Select 1	4
ART 115	Art History 1	
ART 116	Art History 2	
COMA 103	Fundamentals of Speech	3

Total Credits 16

Second Year—Winter Semester

ART 243	Sculpture 1	3
or		
WELD 112	Contemporary Metal Sculpture 1	3
Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
CGT 257	Portfolio Preparation.....	3
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	
Elective	Any ART or CGT course not previously taken... 3	

Total Credits 15

PROGRAM TOTAL 60 CREDITS

** These classes are offered as independent learning. Contact CGT faculty.*

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection

Computer Graphics Technology: Digital Art Certificate

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
ART 105	Basic Drawing.....	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3

Total Credits 12

First Year—Winter Semester

CGT 127	Publishing—InDesign.....	3
ART 115	Art History 1	4
or		
ART 116	Art History 2	4
CGT 226	Digital Imaging 2—Photoshop.....	3
ART 125	Life Drawing 1	3
ART 243	Sculpture 1	3
or		
WELD 112	Contemporary Metal Sculpture 1	3

Total Credits 16

PROGRAM TOTAL 28 CREDITS

Computer Graphics Technology: 3D and Video Graphics AAS Degree

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 166	Photography.....	3
ENG 101	English Composition 1.....	3

Total Credits 15

First Year—Winter Semester

CGT 168	Storyboarding.....	3
CGT 244	History of Animation.....	3
CGT 247	3D Animation—Introduction	3
ENG 102	English Composition 2.....	3
MATH 113	Intermediate Algebra for College Students.....	4

Total Credits 16

First Year—Spring Session

COMA 103	Fundamentals of Speech	3
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Total Credits 3

Second Year—Fall Semester

CGT 208	Digital Video Production.....	3
CGT 215	Motion Graphics 1—After Effects.....	3
Track Option	Select 1	3
3D Track:	CGT 254 3D Animation—Advanced Models and Textures	
Video Track:	CGT 226 Digital Imaging 2—Photoshop	
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
BUS 122	Advertising.....	3

Total Credits 16

Second Year—Winter Semester

CGT 246	Motion Graphics 2—After Effects.....	3
Track Option	Select 1	3
3D Track:	CGT 252 3D Animation—Animating	
Video Track:	CGT 210 Visual Effects Production	
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	
Social Science	Select 1	3
POLS 105	Survey of American Government	
PSYCH 153	Human Relations	
CGT 256	Portfolio—3D Reel Development.....	3

Total Credits 15

PROGRAM TOTAL 65 CREDITS

**These classes are offered as independent learning. Contact CGT faculty.*

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Computer Graphics Technology: Video Graphics Certificate

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 166	Photography.....	3

Total Credits 12

First Year—Winter Semester

CGT 168	Storyboarding.....	3
CGT 208	Digital Video Production.....	3
CGT 215	Motion Graphics 1—After Effects.....	3
CGT 247	3D Animation—Introduction	3

Total Credits 12

Second Year—Fall Semester

CGT 210	Visual Effects Production	3
CGT 246	Motion Graphics 2—After Effects.....	3

Total Credits 6

PROGRAM TOTAL 30 CREDITS

Computer Graphics Technology—3D Animation Certificate

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 166	Photography.....	3

Total Credits 12

First Year—Winter Semester

CGT 168	Storyboarding.....	3
CGT 244	History of Animation	3
CGT 247	3D Animation—Introduction	3
CGT 215	Motion Graphics 1—After Effects.....	3

Total Credits 12

First Year—Spring Session

CGT 254	3D Animation—Advanced Models and Textures ...	3
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Total Credits 3

Second Year—Fall Semester

CGT 246	Motion Graphics 2—After Effects.....	3
CGT 252	3D Animation—Animating.....	3

Total Credits 6

PROGRAM TOTAL 33 CREDITS

Computer Graphics Technology: Interactive Media and Game Design AAS Degree

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
CGT 166	Photography.....	3
ENG 101	English Composition 1.....	3

Total Credits 15

First Year—Winter Semester

CGT 149	Typography	3
CGT 168	Storyboarding.....	3
CGT 244	History of Animation	3
Track Option	Select 1	3
Director Track:	CGT 141 Introduction to Interactive Media and Game Design	
Flash Track:	CGT 211 Flash	
ENG 102	English Composition 2.....	3

Total Credits 15

Second Year—Fall Semester

CGT 154	Sound Editing for Graphic Artists.....	2
Track Option	Select 1	3
Director Track:	CGT 206 Scripting for Interactive Media and Game Design	
Flash Track:	CGT 212 Flash Action Scripting	
COMA 103	Fundamentals of Speech	3
Science	Select 1	4
BIOL 101	General Biology	
CHEM 111	General Chemistry 1	
PHYS 104	Introduction to Astronomy	
BUS 122	Advertising.....	3

Total Credits 15

Second Year—Winter Semester

CGT 242	Advanced Interactive Media and Game Design.....	3
CGT 256	Portfolio—3D Reel Development.....	3
Capstone	Select 1	3
CGT 250	Practical Application	
CGT 270*	Internship	
CGT 298*	Honors Studies	
Social Science	Select 1	3
	PSYCH 153 Human Relations	
	POLS 105 Survey of American Government	
MATH 113	Intermediate Algebra for College Students.....	4

Total Credits 16

PROGRAM TOTAL 61 CREDITS

** These classes are offered as independent learning. Contact CGT faculty.*

Students planning to transfer should check the transfer institution's requirements/guides or discuss their options with a counselor or advisor. Number of credits may vary depending on the course selection.

Computer Graphics Technology: Interactive Media and Game Design Certificate

SAMPLE SCHEDULE OF COURSES

First Year—Fall Semester

CGT 109	Design Concepts and Technology	3
CGT 123	Illustration—Illustrator	3
CGT 125	Digital Imaging 1—Photoshop.....	3
Track Option	Select 1	3
Director Track:	CGT 141 Introduction to Interactive Media and Game Design	
Flash Track:	CGT 211 Flash	
CGT 166	Photography.....	3

Total Credits 15

First Year—Winter Semester

CGT 149	Typography	3
CGT 168	Storyboarding.....	3
Track Option	Select 1	3
Director Track:	CGT 206 Scripting for Interactive Media and Game Design	
Flash Track:	CGT 212 Flash Action Scripting	
CGT 154	Sound Editing for Graphic Artists.....	2

Total Credits 11

First Year—Spring Session

CGT 242	Advanced Interactive Media and Game Design.....	3
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Total Credits 3

PROGRAM TOTAL 29 CREDITS