



2023-2024
NWKTC Catalog and Student Handbook

COMPUTER GRAPHICS TECHNOLOGY

Description: Computer Graphics Technology integrates art and technology with business and communications in a wide range of applications. Areas of study include graphic design, digital photography, publishing, audio production, animation, web, and UX/UI design.

The program runs a full-service creative studio where students gain experience working on projects from end-to-end with real-world clients. Students will graduate with a portfolio tailored to their career path, and the opportunity to become Adobe Certified Associates and Adobe Certified Professionals.

Students will be prepared for entry-level careers in a variety of creative fields in the art, design, and digital media industry.

Degree/Certificates awarded:
 AAS
 Tech Cert B

Program Learning Outcomes:
 Upon successful program completion, students are able to:

- Understand and apply design principles utilizing various digital technologies and traditional mediums.
- Utilize photography and typography for graphic communications.
- Create scripts and storyboards utilized to produce audio/video capture and editing in post-production.
- Design and produce websites, applications, and digital experiences.
- Design, demonstrate and produce a final digital, print, and installation of a final

Program Schedule:
 Students attend class from 8:00 a.m. - 3:00 p.m., Monday through Friday

PROGRAM GUIDE

YEAR I: FIRST SEMESTER

Course #	Course Name	Credits
CF 101	Computer Fundamentals and Applications (Required)	3
CG 103	Basic Design in Computer Graphics	3
CG 107	Drawing I.	2
CG 108A	Computer Design I	3

CG 112A	Layout & Design I	3
CG 116	Typography	3
CG 125	Design for Print	3
MATH 105 or 107	Technical Math	3
SO 100	Student Success Seminar (Required)	1

YEAR I: SECOND SEMESTER

Course #	Course Name	Credits
CG 117A	Computer Design II	3
CG 118A	Layout & Design II	3
CG 122	Digital Imaging I	2
CG 171A	Web Design I	3
CG 223	Digital Media I	3
ENGL 110 or 112	English Composition I (Required)	3
HUM 102	Workplace Ethics (or Gen Ed Elective)	3

YEAR II: FIRST SEMESTER

Course #	Course Name	Credits
BA 215	Personal Finance	3
CG 205	Computer Design III	3
CG 230	Layout & Design III*	3
CG 250A	Web Design II	3
CG 273	Digital Media II	3

YEAR II: SECOND SEMESTER

Course #	Course Name	Credits
CG 228	Digital Imaging II	2
CG 265	Layout & Design IV	3
CG 275	Portfolio Development	3
CG 285	Digital Media III	3
CG 280	Occupational Work Experience	2
or CG 279	or Advanced Project...Graphic Design	

COURSE DESCRIPTIONS

CG 103 BASIC DESIGN IN COMPUTER GRAPHICS

3 CR

There is not one singular formula for creating great artistic compositions, however there are underlying methods and principles that can be used as a roadmap to reaching more pleasing visual relationships. This course will explore the elements and principals involved in creating harmonious compositions and explore how artists throughout history have employed them to create compelling, original works of art.

CG 107 DRAWING I

2 CR

Ideas are what truly engage people and design without ideas is like a water bottle with a giant hole in it; you can constantly fill it up, but you still end up with nothing. This course helps students to develop the elemental skills necessary to produce ideas, regardless of their artistic level, through exploratory drawing and composition. The purpose of this course is for students to discover new possibilities, to look beyond the obvious, because all good design work is based on experimentation, and seeing the world through new eyes. Students explore concepts including, but not limited to: line, form, space, perspective, positive- negative space, various medias, textures and different ways to generate ideas.

CG 108A COMPUTER DESIGN I

3 CR

This course provides a thorough introduction to several industry standard design programs. Fundamental program functions and operational skills are developed with applied projects. Exposure to a range of different types of projects forms a basis for the understanding of the programs.

CG 112A LAYOUT & DESIGN I

3 CR

This course teaches the essence of communicating with words as well as images. This course deals not only with words as a written means of communication, but also with the more challenging concept of words as a means of visual communication. By exploring basic rules of typography students develop the skills necessary to express many different ideas and how type can affect the ideas communicated in a design. This course also incorporates projects that cultivate usage of standard journalist typography rules and methods such as type measurement, alignment, editing marks, and standard readability issues.

CG 116 TYPOGRAPHY

3 CR

The essence of all good design is communicating words as well as images. This course deals not only with words as a written means of communication, but also with the more challenging concept of works as means of visual communication. By exploring basic rules of typography students develop the skills necessary to express many different ideas and how type can affect the ideas communicated in a design. This course also incorporates projects that cultivate usage of standard journalist typography rules and methods such as type measurement, alignment, editing marks, and standard readability issues.

CG 117A COMPUTER DESIGN II

3 CR

This course further develops the skills learned in Computer Design I by delving deeper into the design programs; combining them to create an advanced design structure. Students gain a more intimate knowledge of each of the design programs; learning how they can best be used to express the ideas of the designer. Learning how the programs function together to solve design problems in a creative and competent way.

CG 118A LAYOUT & DESIGN II

3 CR

This course further develops the skills learned in Layout & Design I. Students reach an advanced level of design using analysis and creative solutions of design & communication to generate the best possible solutions. Discussion and application of branding, editorial, commercial, and promotional design provide a well-rounded experience base. Going beyond layout & design this course also provides a fundamental understanding of marketing, cohesive campaigns, target audiences and self-evaluation.

CG 122 DIGITAL IMAGING I

2 CR

This course provides an introduction to digital photography for the beginning designer. Basic concepts such as lighting, framing and staging are delved into. These concepts allow designers to choose appropriate images from stock photography, commercial photographers, or to take images of their own that meet the needs of their projects

CG 125 DESIGN FOR PRINT

3 CR

This course provides students with the knowledge of printing processes available as well as different types of ink, binding, die-cuts and other options available to designers when designing & printing projects. Basic knowledge of

paper weights, types and proper uses. Real life experiences estimating and bidding printing costs including creating pre-press bidding packets and performing proof checks.

CG 171A WEB DESIGN I

3 CR

This course introduces the student to what makes a great web site. The student discovers how layout and design, color, typography, relates to the world of web. We discuss how to apply the lessons of great layout and design to web design. Web design principles, storyboarding, site structure, design strategies, and browser capabilities are all discussed.

CG 205 COMPUTER DESIGN III*

3 CR

This advanced course builds on concepts from previous computer design courses for continued development of the digital skills necessary to be proficient and effective as a computer graphics technician. Students will demonstrate an advanced understanding of vector, raster and publication software, and utilize all to complete industry compliant projects. Also introduced will be the creation of business documents and form using Adobe Acrobat Pro and the publication of interactive digital documents using Adobe InDesign.

CG 223 DIGITAL MEDIA I

3 CR

This course provides an introduction to the development of commercial motion graphics. Students will be given an comprehensive introduction to industry standard animation software and given projects that will help them develop a range of valuable motion design skills. Projects will require the development of effective time management skills as well as an efficient production workflow. Students will also be exposed to basic video and audio recording, editing, and publishing.

CG 228 DIGITAL IMAGING II

2 CR

Digital Imaging II focuses on advanced photographic techniques. Students will become proficient in determining camera settings for shooting in manual mode with natural and studio lighting. Development of a workflow for processing RAW photos and delivering finished images to a client will be covered. Students explore concepts including high dynamic range (HDR), panoramic and product photography

CG 230 LAYOUT & DESIGN III

3 CR

This course takes the skills learned in Layout and Design I and II and builds upon that skill base. The principles of graphic design are further honed. The student is exposed to additional layout and design challenges that build further confidence and great pieces for a strong portfolio. This course is mainly about big projects and complex software experiences portfolio. This course is mainly about big projects and complex software experiences.

CG 250A WEB DESIGN II

3 CR

This course further develops the skills learned in Fundamentals of Web Design by delving deeper into web design & a variety of design programs; combining them to create an advanced web design structure. Students gain a more intimate knowledge of web design through use of tables, CSS, forms, links & images. Inclusion of interactivity, animation, video and audio in web sites is also included.

CG 265 LAYOUT & DESIGN IV

3 CR

Working from the skill base built in Layout and Design I, II and III, students will develop larger projects in both print

and digital formats. Students will demonstrate a workflow for their design processes and business timelines. Emphasis in this course is placed on professionalism, productivity, time management and meeting the need of a client.

CG 273 DIGITAL MEDIA II

3 CR

This course is an introduction to the development of three-dimensional graphics and animations. Students will explore the software and processes involved in developing three-dimensional modeling and animation. Cinema 4D will be utilized to model, texture, animate, and render three-dimensional projects.

CG 275 PORTFOLIO DEVELOPMENT

3CR

Essential to any designer is their portfolio. This course is a compilation of everything the students have done and achieved throughout the program. This is also their last chance to fine tune and perfect their work. Traditionally, portfolios are a collection of printed items such as brochures & posters mounted in a portfolio case. While these traditional portfolios are important, so is developing a CD & Web site portfolio that can be easily sent anywhere in the world providing designers with a broader set of employment opportunities. By the conclusion of this course each student will have completed a traditional print portfolio, a CD portfolio, and a functional Web site portfolio. This course also provides the knowledge of when it is appropriate to use each type of portfolio. The goal is a well-rounded high quality set of portfolios.

CG 279 ADVANCED PROJECT (ELECTIVE)

2CR

The students will work with a non-profit corporation or a business to develop a plan to meet the communication needs of the business or develop another project that coincides with their future employment goals.

CG 280 OCCUPATIONAL WORK EXPERIENCE (ELECTIVE)

2CR

Occupational work experience is actual on-the-job training. This is designed for each individual student and the instructor shall maintain contact and support of the student during this final phase of their education. Students are highly encouraged to participate in the Occupational Work Experience/Internship Program.

CG 285 DIGITAL MEDIA III

3CR

In this course, students will explore 3D Graphics software like Adobe Dimension, Cinema 4D, or Maya to create animations. Students will also gain experience working with the MakerBot to create and print 3D objects.