DES M120: INTRODUCTION TO COMPUTER GRAPHICS

Originator
abarcenas

College
Moorpark College

Attach Support Documentation (as needed)
DES M120 CCC000629267.pdf

Discipline (CB01A)
DES - Design

Course Number (CB01B)
M120

Course Title (CB02)
Introduction to Computer Graphics

Banner/Short Title
Intro to Computer Graphics

Credit Type
Credit

Start Term
Spring 2023

Formerly
GR M23 - Introduction to Computer Graphics

Catalog Course Description
Introduces visual technologies, concepts and principles of production used by designers and media artists. Explores software applications as they relate to current methods of design and media arts production. Emphasizes the development of fundamental computer skills and an understanding of the relationship between digital media and visual design.

Taxonomy of Programs (TOP) Code (CB03)
1030.00 - *Graphic Art and Design

Course Credit Status (CB04)
D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)
B (Transferable to CSU only)

Course Basic Skills Status (CB08)
N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)
D - Possibly Occupational

Course Cooperative Work Experience Education Status (CB10)
N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)
Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)
N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)
Y - Not Applicable

Course Noncredit Category (CB22)
Y - Credit Course

Funding Agency Category (CB23)
Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)
1 - Program Applicable

General Education Status (CB25)
Y - Not Applicable

Support Course Status (CB26)
N - Course is not a support course

Field trips
Will not be required

Grading method
(L) Letter Graded

Alternate grading methods
(O) Student Option- Letter/Pass
(E) Credit by exam, license, etc.
(P) Pass/No Pass Grading

Does this course require an instructional materials fee?
No

Repeatable for Credit
No

Is this course part of a family?
No

Units and Hours

Carnegie Unit Override
No

In-Class

Lecture
Minimum Contact/In-Class Lecture Hours
35
Maximum Contact/In-Class Lecture Hours
35

Activity

Laboratory
Minimum Contact/In-Class Laboratory Hours
52.5
Maximum Contact/In-Class Laboratory Hours
52.5

Total in-Class

Total in-Class
Total Minimum Contact/In-Class Hours
87.5
Total Maximum Contact/In-Class Hours
87.5

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class
Minimum Outside-of-Class Hours
70
Maximum Outside-of-Class Hours
70

Total Student Learning

Total Student Learning
Total Minimum Student Learning Hours
157.5
Total Maximum Student Learning Hours
157.5

Minimum Units (CB07)
3
Maximum Units (CB06)
3

Student Learning Outcomes (CSLOs)	
	Upon satisfactory completion of the course, students will be able to:
1	demonstrate knowledge of the software technologies used in design and production for print and screen.
2	apply professional standards when choosing appropriate file types, formats, and compressions.
3	demonstrate the difference between pixel and vector based graphics.

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	identify and analyze hardware and software technologies including the operating systems, scanners, digital cameras, image manipulation, vector-versus-bitmap artwork concepts, text and font management, and color and output.
2	discuss the history of digital media, explain the key concepts, and define the digital media arts terminology.
3	apply storyboarding and thumbnail sketching techniques to express personal ideas, subjective visions, and informed opinions through the design process.
4	draw, scan and manipulate images as design elements to create designs for print and web, motion, and interactive design.
5	define and produce appropriate resolution and digital file formats for output to various media.

| 6 | demonstrate proficiency working with digital technologies to input and manipulate images and use various software programs for the development of individual projects. |
| 7 | explain copyright law and intellectual property rights as they apply to digital media arts. |

Course Content

Lecture/Course Content

(10%) 1. Computer Literacy for the Mac
- Introduction to operating system
- Files, folders and directories
- Home folder
- Using the desktop
- Introduction to software and applications
- Opening and saving files
- Introduction to computer peripherals
- Introduction to network and getting online
- Introduction to Internet searching
- Introduction to photo and image management
- Introduction to sharing files

(10%) 2. Bits, Pixels, Vectors, and Design
- The dot, the path and the pixel
- Design process/storyboarding

(20%) 3. Digital illustration
- Drawing expressive lines
- Modifying basic shapes

(10%) 3. Digital imaging
- Creating and organizing digital photos
- Resolution and values
- Color models

(20%) 4. Digital manipulation and fair use
- Retouching and repairing
- Copy, Paste, Collage
- Blended realities
- Copyright law in media arts

(20%) 5. Page Layout
- Typesetting
- Type and Image
- The Grid
- Gestalt

(10%) 6. The Web (UI/UX Design)
- Graphics on the Web

Laboratory or Activity Content

(10%) Critiques of design projects

(50%) Exercises focusing on tools and techniques

(40%) Production of image editing, digital illustration and page layout design projects

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):
Written expression
Skills demonstrations

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):
Graphic/architectural designs
Individual projects
Quizzes
Skills demonstrations
Classroom Discussion
Projects
Participation

Reports/Papers/Journals

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Audio-visual presentations
Case studies
Class activities
Class discussions
Distance Education
Instructor-guided interpretation and analysis
Instructor-guided use of technology
Lecture

Describe specific examples of the methods the instructor will use:

Lectures may include demonstration, video tutorials and pdf handouts.

Representative Course Assignments

Writing Assignments
- Compose a written proposal of final project.
- Compose a short essay to present your observations on how digital technology influences visual culture.

Critical Thinking Assignments
- Discuss the history of digital media and computer graphics and explain the key concepts.
- Compare and contrast students' work with the work of a historical or contemporary designer.

Reading Assignments
- Read "As We May Think" by Vannaver Bush (1945). In preparation for the class discussions about the link between his prediction and the internet as we know it today.
- Read "The Ideal Book" by William Morris and compare his design for the "The Works of Geoffrey Chaucer" (1986) with a contemporary illustrated collection of stories, such as "Edgar Allan Poe: Stories & Poems" illustrated by David Plunkert (2014)

Skills Demonstrations
- Export an image from RAW format to PSD, JPG, and PNG in the accurate file size and image resolution.
- Create a Layer Mask to isolate subject from the background.

Outside Assignments

Representative Outside Assignments
- Produce a mind map and thumbnail sketches for the final project.
- Explore an environment with camera; retouch and improve the photographs; convert bitmap images to vectors.

Articulation

Equivalent Courses at 4 year institutions

University	Course ID	Course Title	Units
CSU Channel Islands	ART 108	Visual Technologies	3
CSU Northridge	ART 200	Art, Media and Visualization	3

Equivalent Courses at other CCCs

College	Course ID	Course Title	Units
College of the Canyons	GMD 101	Introduction to Visual Communication	3

District General Education

A. Natural Sciences

B. Social and Behavioral Sciences

C. Humanities

D. Language and Rationality

E. Health and Physical Education/Kinesiology

F. Ethnic Studies/Gender Studies

Course is CSU transferable
Yes

CSU Baccalaureate List effective term:
F1995

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

Area F: Ethnic Studies

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals
Resource Type
Textbook

Description
Burrough, xtine, and Michael Mandiberg. Digital Foundations: Introduction to Media Design with the Adobe Creative Cloud. Revised ed., Pressbooks, 2018, https://openoregon.pressbooks.pub/digitalfoundations/.

Resource Type
Textbook

Description
Burrough, xtine. *Foundations of Digital Art and Design with Adobe Creative Cloud.* 2nd ed., New Riders, 2020.

Resource Type
Textbook

Description
Faulkner, Andrew, and Conrad Chavez. *Adobe Photoshop CC Classroom in a Book.* Adobe, 2020.

Resource Type
Textbook

Description
Wood, Brian. *Adobe Illustrator CC Classroom in a Book* (2021 release). Adobe, 2020.

Library Resources

Assignments requiring library resources
Research using the Library's print and online resources.

Sufficient Library Resources exist
Yes

Example of Assignments Requiring Library Resources
Utilize library resources to research and create a presentation on digital artists that successfully communicates their social commentary.

Distance Education Addendum

Definitions

Distance Education Modalities
Hybrid (1%–50% online)
Hybrid (51%–99% online)
100% online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.
Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.
Yes

Regular Effective/Substantive Contact

Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Discussion Forums will be used to disseminate course-wide information and facilitate ongoing collaborative course work. Students may also use the Discussion Forums to solicit help from the instructor and other students. Discussions may also be graded encouraging students to participate in the class.
E-mail	Email is a tool primarily used for course-wide updates and individual student contact. Students and the instructor can privately contact each other with questions, concerns.
Other DE (e.g., recorded lectures)	The instructor can provide text, presentation slides, audio/visual material, assignment examples, tutorials (which may be live or recorded), and links to supplemental publications, articles, and websites.

Hybrid (51%–99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Discussion Forums will be used to disseminate course-wide information and facilitate ongoing collaborative course work. Students may also use the Discussion Forums to solicit help from the instructor and other students. Discussions may also be graded encouraging students to participate in the class.
E-mail	Email is a tool primarily used for course-wide updates and individual student contact. Students and the instructor can privately contact each other with questions, concerns.
Other DE (e.g., recorded lectures)	The instructor can provide text, presentation slides, audio/visual material, assignment examples, tutorials (which may be live or recorded), and links to supplemental publications, articles, and websites.

100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Discussion Forums will be used to disseminate course-wide information and facilitate ongoing collaborative course work. Students may also use the Discussion Forums to solicit help from the instructor and other students. Discussions may also be graded encouraging students to participate in the class.
E-mail	Email is a tool primarily used for course-wide updates and individual student contact. Students and the instructor can privately contact each other with questions, concerns.
Other DE (e.g., recorded lectures)	The instructor can provide text, presentation slides, audio/visual material, assignment examples, tutorials (which may be live or recorded), and links to supplemental publications, articles, and websites.

Examinations

Hybrid (1%–50% online) Modality
Online

Hybrid (51%–99% online) Modality
Online

Primary Minimum Qualification
GRAPHIC ARTS

Additional Minimum Qualifications

Minimum Qualifications
Multimedia

Review and Approval Dates

Department Chair
MM/DD/YYYY

Dean
MM/DD/YYYY

Technical Review
MM/DD/YYYY

Curriculum Committee
MM/DD/YYYY

DTRW-I
MM/DD/YYYY

Curriculum Committee
MM/DD/YYYY

Board
MM/DD/YYYY

CCCCO
MM/DD/YYYY

Control Number
CCC00062926

DOE/accreditation approval date
MM/DD/YYYY