

Note: Covers the second half of GERM 101; not open to students with credit for GERM 101

Transfer acceptability: CSU; UC

German 101B is equivalent to the second half of German 101, and is a continuation of German 101A. This elementary level course is a study of the German language and German-speaking cultures, with emphasis on the development of communicative skills and basic structures.

GERM 102 German II (5)

5 hours lecture-1 hour laboratory

Prerequisite: GERM 101 or 101B or two years of high school German

Transfer acceptability: CSU; UC; CAN GERM 4; GERM 101 + 102=CAN GERM SEQ A

This course is the second semester of German. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures. Course combines in-class instruction with self-paced study in the Foreign Language Laboratory.

GERM 102A German IIA (3)

3 hours lecture

Prerequisite: GERM 101 or 101B or two years of high school German

Note: Covers the first half of GERM 102; not open to students with credit for GERM 102

Transfer acceptability: CSU; UC

German 102A is equivalent to the first half of German 102. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

GERM 102B German IIB (3)

3 hours lecture

Prerequisite: GERM 102A or two years of high school German

Note: Covers the second half of GERM 102; not open to students with credit for GERM 102

Transfer acceptability: CSU; UC

German 102B is equivalent to the second half of German 102, and is a continuation of German 102A. This elementary level course is a study of the German language and German-speaking cultures, with continued emphasis on the development of communicative skills and basic structures.

GERM 201 German III (5)

5 hours lecture

Prerequisite: GERM 102 or three years of high school German

Transfer acceptability: CSU; UC; CAN GERM 8; GERM 201 + 202= CAN GERM SEQ B

This course is the third semester of German. This intermediate level course is a study of the German language and German-speaking cultures, focusing on intermediate level structures and readings of culturally relevant authentic materials. Emphasis is on developing oral, listening, reading and writing skills in order to acquire proficiency in German. Class is largely conducted in German.

GERM 202 German IV (5)

5 hours lecture

Prerequisite: German 201 or four years of high school German

Transfer acceptability: CSU; UC; CAN GERM 10; GERM 201+ 202= CAN GERM SEQ B

This course is the fourth semester of German. This intermediate level course is a study of the German language and of special topics on the culture of the German-speaking world. Emphasis is on further development of cross-cultural awareness, as well as, the development of oral, listening, reading and writing skills in order to improve communicative competence in German. Class is largely conducted in German.

Graphic Communications (GC)

See also **Graphic Communications - Imaging & Publishing, and Graphic Communications - Multimedia & Web**

Contact the Graphic Communications Department for further information, (760) 744-1150, ext. 2452. For transfer information, consult a Palomar College counselor.

COURSE OFFERINGS

GC 100 Graphic Communications (3)

3 hours lecture

Transfer acceptability: CSU

Explores the history and theory of effective mass communication from prehistoric cave art, to invention of the printing press, and modern graphic communication techniques using computers and the Internet. The class examines communication models revolving around imagery, type, delivery systems, and technology. The students will be able to understand and establish the effects of a clear visual message. Learning modules include slideshow, field trips, guest speakers, discussion, lectures and hands-on application with computers and the Internet to promote an understanding of graphic communications and visual messages and their impact on society.

GC 101 History of Graphic Communications (3)

3 hours lecture

Transfer acceptability: CSU

This course focuses on the history and evolution of graphic communications from prehistoric pictographs to present day graphic design. Topics include the invention of writing and the creation of alphabets. Other topics include world influences on print and aesthetic design, and an understanding of the stylistic, social, political, economic, and historical events as related to communication and graphic design. The emphasis is on art movements, schools of thought, influential individuals, and technology as they interrelate with the history of graphic arts. Historical topics are applied to photography, print media graphics and motion graphics. Field trips to museums and guest speakers will be integrated into the topics as appropriate.

Graphic Communications - Imaging & Publishing (GCIP)

See also **Graphic Communications and Graphic Communications - Multimedia & Web**

Contact the Graphic Communications Department for further information, (760) 744-1150, ext. 2452. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

Digital Arts

Specific skills for the Digital Arts certificate include graphic design methodologies, including the design process, output production and presentation. The certificate prepares students to gain competence with the industry standard for digital imaging: Adobe Photoshop. Color, resolution, input and output, production process, photography and creativity are core competencies. Upon completion of the certificate, the student may find a job as a production artist, illustrator, graphic artist, or in digital imaging.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
ARTD 150	Digital Concepts/Techniques in Art	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP 240	Digital Imaging/Photoshop III	3
PHOT 230	Digital Darkroom	3.5
TOTAL UNITS		15.5

Digital Imaging

Prepares students for entry-level position as creator and processor of digital imagery. Layout and creative position in multimedia, internet publishing, digital video, publishing, photography, and motion graphics.

Digital imaging is one of the basic requirements for all electronic communication delivery systems.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
GCIP 122 Painter I	3
GCIP/	
R GCIP 140 Digital Imaging/Photoshop I	3
GCIP 141 Digital Imaging/Photoshop II	3
GCIP 240 Digital Imaging/Photoshop III	3
GCMW 203 Web Multimedia	3
GCMW 204 Motion Graphics for Multimedia	3
GCMW 205 Digital Video for Multimedia	3
PHOT 100 Elementary Photography	3.5
PHOT 230 Digital Darkroom	3.5
TOTAL UNITS	28

Digital Imaging A.A. Degree Major or Certificate of Achievement is also listed under Photography.

Digital Prepress Operator

Prepares students to pursue entry-level employment in the printing industry in prepress, press, and finishing processes.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units
GCIP 180 Digital Prepress and Press I	3
GCIP 182 Digital Prepress and Press II	3
GCIP 280 Digital Prepress and Press III	3
TOTAL UNITS	9

Digital Publishing

Designed to meet the increasing needs of organizations and businesses that distribute publications in both electronic and print media. Specific skills for the Digital Publishing certificate include typography, visual acuity, graphic design and layout. The certificate prepares students to gain competence with the basic applications used in industry for digital graphics and electronic publishing. Teamwork, problem solving, workflow and production process, communication and creativity are core competencies. Upon completion of the certificate, the student may find a job as a production artist, illustrator, graphic artist, graphic designer, or in digital imaging.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units
GCIP/	
R GCIP 140 Digital Imaging/Photoshop I	3
GCIP 141 Digital Imaging/Photoshop II	3
GCIP/	
R GCIP 149 Page Layout and Design I	3
GCIP/	
R GCIP 152 Desktop Publishing/Illustrator I	3
GCMW/	
R GCMW 103 Interactive Publishing with PDFs	3
TOTAL UNITS	15

Electronic Publisher

Electronic publishing encompasses computer-based document layout, composition, typography, illustration, scanning, image modification, as well as reproduction and distribution. It has revolutionized print communications. There will be a major growth in this field in the future.

Employment opportunities will be with commercial printers, corporate electronic publishers, small print shops, service bureaus, direct mail companies, magazine publishers, advertising, typographers and compositors, freelance publications, newspaper publishers, marketing and ad agencies, and in-plant printers.

CERTIFICATE OF PROFICIENCY

Required Courses	Units
GCIP 105 Layout for Offset Lithography	3
GCIP/	
R GCIP 140 Digital Imaging/Photoshop I	3
GCIP/	
R GCIP 149 Page Layout and Design I	3
TOTAL UNITS	9

Graphic Communications Emphasis in Electronic Publishing

Electronic publishing—which encompasses computer based document layout, composition, typesetting, illustration, scanning, image modification, reproduction, and distribution—has revolutionized print communications. There will be major growth in this field in the future. Employment opportunities will be with commercial printers, corporate electronic publishers, small printers, service bureaus, quick printers, direct mail companies, magazine publishers, advertising, typographers and compositors, freelance publications, newspaper publishers, inplant printers, and other still growing applications.

The 18 units of Program Requirements are the same for Graphic Communications Emphasis in Electronic Publishing, Graphic Communications Emphasis in Management, and Graphic Communications Emphasis in Production. Students may complete one or more of these programs by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements (18 units)	Units
GC 100 or Graphic Communications	3
GC 101 History of Graphic Communications	3
GCIP/	
R GCIP 103 Acrobat for Print	3
GCIP 105 Layout for Offset Lithography	3
GCIP/	
R GCIP 140 Digital Imaging/Photoshop I	3
GCIP/	
R GCIP 149 Page Layout and Design I	3
GCIP 180 Digital Prepress and Press I	3

Emphasis Requirements (9 units)

ARTD 210 Typography Design	3
GCIP/	
R GCIP 152 Desktop Publishing/Illustrator I	3
GCIP/	
R GCIP 260 Portfolio Development and Presentation	3

Electives (Select one course, 1 – 4 units)

ARTD 100 Graphic Design I	3
CSIS 105 Computer Concepts/Microcomputer Applications	3
DT/R DT 125 AutoCAD Introduction to Computer Aided Drafting	3
GCIP 141 Digital Imaging/Photoshop II	3
GCIP 240 Digital Imaging/Photoshop III	3
GCIP 252 Desktop Publishing/Illustrator II	3
GCIP 182 Digital Prepress and Press II	3
GCIP 280 Digital Prepress and Press III	3
GCIP/	
R GCIP 249 Page Layout and Design II	3
GCMW/	
R GCMW 102 Web Page Layout I	3
JOUR 105 Newspaper Production	3
PHOT 100 Elementary Photography	3.5
CE 100* Cooperative Education	1,2,3,4

TOTAL UNITS 28 - 31

*Cooperative Education must be related to this major.

**Graphic Communications
Emphasis in Management**

Prepares students to pursue employment in the printing industry as supervisors, foremen, production managers, estimators, salespersons, and plant operators.

The 18 units of Program Requirements are the same for Graphic Communications Emphasis in Electronic Publishing, Graphic Communications Emphasis in Management, and Graphic Communications Emphasis in Production. Students may complete one or more of these programs by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

**A.A. DEGREE MAJOR OR
CERTIFICATE OF ACHIEVEMENT**

Program Requirements (18 units)		Units
GC 100 or	Graphic Communications	3
GC 101	History of Graphic Communications	3
GCIP/		
R GCIP 103	Acrobat for Print	3
GCIP 105	Layout for Offset Lithography	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	3
GCIP/		
R GCIP 149	Page Layout and Design I	3
GCIP 180	Digital Prepress and Press I	3

Emphasis Requirements (6 units)		Units
CSIS 105	Computer Concepts/Microcomputer Apps	3
GCIP 182	Digital Prepress and Press II	3

Electives (Select two courses, 4 – 7 units)		Units
BUS 105	Bookkeeping Fundamentals	3
BUS 115	Business Law	3
BUS 125	Business English	3
BUS 140	Selling for Business	3
BUS 155	Marketing	3
BMGT 105	Small Business Management	3
BMGT 115	Organizational Theory and Design	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP/		
R GCIP 249	Page Layout and Design II	3
GCIP 280	Digital Prepress and Press III	3
CE 100*	Cooperative Education	1,2,3,4

TOTAL UNITS **28 – 31**

*Cooperative Education must be related to this major.

**Graphic Communications
Emphasis in Production**

Prepares students to pursue employment in the printing industry in prepress, press, and finishing processes.

The 18 units of Program Requirements are the same for Graphic Communications Emphasis in Electronic Publishing, Graphic Communications Emphasis in Management, and Graphic Communications Emphasis in Production. Students may complete one or more of these programs by completing the Program Requirements, Emphasis Requirements and Electives listed for each program.

**A.A. DEGREE MAJOR OR
CERTIFICATE OF ACHIEVEMENT**

Program Requirements (18 units)		Units
GC 100 or	Graphic Communications	3
GC 101	History of Graphic Communications	3
GCIP/		
R GCIP 103	Acrobat for Print	3
GCIP 105	Layout for Offset Lithography	3

GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	3
GCIP/		
R GCIP 149	Page Layout and Design I	3
GCIP 180	Digital Prepress and Press I	3

Emphasis Requirements (6 units)		Units
GCIP 182	Digital Prepress and Press II	3
GCIP 280	Digital Prepress and Press III	3

Electives (Select two courses, 4 – 7.5 units)		Units
BUS 125	Business English	3
CSIS 105	Computer Concepts/ Microcomputer Applications	3
GCIP 141	Digital Imaging/Photoshop II	3
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	3
JOUR 105	Newspaper Production	3
JOUR 205	Advanced Newspaper Production	3
PHOT 100	Elementary Photography	3.5
CE 100*	Cooperative Education	1,2,3,4

TOTAL UNITS **28 – 31.5**

* Cooperative Education must be related to this major.

Screen Printer

Recent advances in technology have allowed screen printing to compete on a large scale with other printing processes. Productive, challenging careers are growing in the screen printing field at a steady rate. Palomar's screen printing process classes prepare students for duties in project planning, copy preparation, camera operation, screen preparation, electronic prepress, stencil making, screen printing, and sales.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCIP/		
R GCIP 170	Screen Printing	3
GCIP/		
R GCIP 172	Textile Screen Printing	3
GCIP 270	Commercial Screen Printing	3

TOTAL UNITS **9**

Screen Printing

Prepares students for entry-level positions in project planning, copy preparation, camera operation, screen preparation, stencil making, printing, and sales.

Due to recent advances in screen printing technology, screen printing is becoming very commercialized. These breakthroughs have allowed screen printing to compete on a large scale with other processes. Productive, challenging careers are growing in the screen printing field at a steady rate.

**A.A. DEGREE MAJOR OR
CERTIFICATE OF ACHIEVEMENT**

Program Requirements		Units
BMGT 105	Small Business Management	3
GCIP 105	Layout for Offset Lithography	3
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	3
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	3
GCIP/		
R GCIP 170	Screen Printing	3
GCIP/		
R GCIP 172	Textile Screen Printing	3
GCIP 180	Digital Prepress and Press I	3
GCIP 270	Commercial Screen Printing	3

Electives (Select one course)

GCIP 182	Digital Prepress and Press II	3
GCIP 240	Digital Imaging/Photoshop III	3
GCIP 252	desktop Publishing/Illustrator II	3

CE 100	Cooperative Education	1,2,3,4
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TOTAL UNITS		25 - 28
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COURSE OFFERINGS**GCIP 103 Acrobat for Print (3)**

(Formerly GC 248)

6 hours lecture/laboratory

Note: Cross listed as R GCIP 103; may be taken 4 times**Transfer acceptability:** CSU

Hands-on instruction in creating and editing high quality, print-ready PDF files using Adobe Acrobat. This course also includes the estimating of materials and labor relative to current industry practices for the production of a printed product.

GCIP 105 Layout for Offset Lithography (3)

(Formerly GC 105)

6 hours lecture/laboratory

Note: May be taken 4 times**Transfer acceptability:** CSU

Planning and layout of visual communication for offset lithography. Basic computer applications for layout of business communication set or eight page booklet using type, color, images, paper, and the lithographical production processes to complete the package. Emphasis is on practical application.

GCIP 122 Painter I (3)

(Formerly GC 220)

6 hours lecture/laboratory

Transfer acceptability: CSU

Provides the student with the knowledge to electronically simulate natural media tool and textures. The class covers the use of Painter as an image-editing tool. Students will produce electronic images simulating the use of painting and drawing tools.

GCIP 140 Digital Imaging/Photoshop I (3)

(Formerly GC 140)

6 hours lecture/laboratory

Note: Cross listed as R GCIP 140; may be taken 4 times**Transfer acceptability:** CSU

The study of digital imaging and editing with Adobe Photoshop for visual, pictorial and graphic use in all media. Emphasis on creating and enhancing imagery for effective use in mass communication mediums.

GCIP 140A Digital Imaging/Photoshop IA (1.5)

(Formerly GC 145)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

Introduction to digital imaging systems with Photoshop for Graphic Communications and Multimedia. Emphasis on basic and intermediate features and functions of Photoshop with a primary focus on preparing and using optimized images for the web. Special projects facilitate the needs of more advanced students.

GCIP 140B Digital Imaging/Photoshop IB (1.5)

(Formerly GC 146)

3 hours lecture/laboratory

Note: For intermediate levels; may be taken 4 times.**Transfer acceptability:** CSU

A hands-on introduction to digital imaging systems with Photoshop for Graphic Communications and Multimedia. Emphasis on basic and intermediate features and functions of Photoshop with a primary focus on preparing and using optimized images for the web. Special projects facilitate the needs of more advanced students.

GCIP 141 Digital Imaging/Photoshop II (3)

(Formerly GC 141)

6 hours lecture/laboratory

Transfer acceptability: CSU

The concepts of intermediate digital imaging with Adobe Photoshop for visual, pictorial and graphic use in all media. Effective image creation for motion graphics, publications and internet for effective visual communications.

GCIP 141A Digital Imaging/Photoshop IIA (1.5)

(Formerly GC 147)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

Intermediate level of Photoshop focusing on digital art and graphics with an emphasis on website development. A working knowledge of Photoshop is suggested as well as a basic knowledge of using computers (Mac, PC). Students will produce digitally manipulated art and website design to be used print and/or digital portfolio presentations.

GCIP 141B Digital Imaging/Photoshop IIB (1.5)

(Formerly GC 148)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

Intermediate level of Photoshop focusing on digital art and graphics with an emphasis on website development. A working knowledge of Photoshop is suggested as well as a basic knowledge of using computers (Mac, PC). Students will produce digitally manipulated art and website design to be used print and/or digital portfolio presentations.

GCIP 149 Page Layout and Design I (3)

(Formerly GC 149)

6 hours lecture/laboratory

Note: Cross listed as R GCIP 149; may be taken 4 times**Transfer acceptability:** CSU

Introduction to electronic document design and page layout, electronic composition, text and graphics entry with computers. Students will create a variety of projects including but not limited to: brochures, flyers, and newsletters.

GCIP 152 Desktop Publishing/Illustrator I (3)

(Formerly GC 152)

6 hours lecture/laboratory

Note: Cross listed as R GCIP 152; may be taken 4 times**Transfer acceptability:** CSU

Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images into PostScript. Quality levels needed for electronic output will be evaluated.

GCIP 152A Desktop Publishing/Illustrator IA (1.5)

(Formerly GC 132)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images in PostScript. Quality levels needed for electronic output will be evaluated.

GCIP 152B Desktop Publishing/Illustrator IB (1.5)

(Formerly GC 133)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

Introduction to electronic layout on the microcomputer. Illustrator will help the student generate new images or convert bitmapped images in PostScript. Quality levels needed for electronic output will be evaluated. Topics included: printing, separations, working with graphics from multiple applications with Illustrator, and production of Web graphics.

GCIP 170 Screen Printing (3)

(Formerly GC 170)

6 hours lecture/laboratory

Note: Cross listed as R GCIP 170; may be taken 4 times**Transfer acceptability:** CSU

Screen printing theory and application of layout and image preparation, computer applications, stencil methods, process camera and basic screen printing techniques. Practical application is stressed.

- GCIP 172 Textile Screen Printing (3)**
(Formerly GC 172)
6 hours lecture/laboratory
Note: Cross listed as R GCIP 172; may be taken 3 times
Transfer acceptability: CSU
Theory and applications of screen printing for textile use. Copy preparation for multicolor reproduction, color matching, ink selection, and mesh and stencils for material compatibility.
- GCIP 180 Digital Prepress and Press I (3)**
(Formerly GC 180)
6 hours lecture/laboratory
Note: May be taken 4 times
Transfer acceptability: CSU
Practical applications of electronic prepress and introduction to offset press operation. The theory and practical applications of conventional and digital prepress including job layout, page impositions, templates and press signatures, plus small format press operation to include control and setup of feeder and delivery units, press controls, direct to plate technology, ink and chemistry as related to the offset press.
- GCIP 182 Digital Prepress and Press II (3)**
(Formerly GC 182)
6 hours lecture/laboratory
Note: May be taken 4 times
Transfer acceptability: CSU
Set up and control of printing on small offset presses. Examines offset chemistry, kinds of offset plates, inks, and offset press problems. Theory and practical applications of conventional and digital prepress.
- GCIP 197A Topics in Graphic Communications (.5-4)**
(Formerly GC 197A)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: Cross listed as R GCIP 197A; may be taken 3 times
Transfer acceptability: CSU
Short term or special topic course, lecture or laboratory courses in various topics in Graphic Communications.
- GCIP 197B Topics in Digital Imaging (.5-5)**
(Formerly GC 197B)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: May be taken 4 times
Transfer acceptability: CSU
Graphic Communications topics in digital imaging. See Class Schedule for specific topic offered. Course title will designate subject covered.
- GCIP 197C Topics in Electronic Publishing (.5-5)**
(Formerly GC 197C)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: May be taken 4 times
Transfer acceptability: CSU
Graphic Communications topics in electronic publishing. See Class Schedule for specific topic offered. Course title will designate subject covered.
- GCIP 197D Topics in Graphic Processes (.5-5)**
(Formerly GC 197F)
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.
Note: May be taken 4 times
Transfer acceptability: CSU
Graphic Communications topics in graphic processes. See Class Schedule for specific topic offered. Course title will designate subject covered.
- GCIP 222 Painter II (3)**
(Formerly GC 222)
6 hours lecture/laboratory
Prerequisite: GCIP 122 and GCIP/R GCIP 140
Note: May be taken 4 times
Transfer acceptability: CSU
Advanced concept and method of Painter and its use in image making, image editing, and problem solving. Painter applications for developing special effects, shape descriptions, Internet, and multimedia interface design for communication solutions.
- GCIP 240 Digital Imaging/Photoshop III (3)**
(Formerly GC 142)
6 hours lecture/laboratory
Prerequisite: GCIP/R GCIP 140 and GCIP 141
Transfer acceptability: CSU
The concepts of advanced digital imaging with Adobe Photoshop for creating and preparing images for electronic distribution. Advanced methods of editing in all venues of digital media for visual communications.
- GCIP 249 Page Layout and Design II (3)**
(Formerly GC 249)
6 hours lecture/laboratory
Prerequisite: GCIP/R GCIP 140 and GCIP/R GCIP 149
Note: Cross listed as R GCIP 249; may be taken 4 times
Transfer acceptability: CSU
Intermediate concepts of electronic document layout, typography, and graphics. Software capabilities in creating sophisticated graphic and type treatments.
- GCIP 252 Desktop Publishing/Illustrator II (3)**
(Formerly GC 157)
6 hours lecture/laboratory
Prerequisite: GC 101 and GCIP/R GCIP 152
Note: May be taken 4 times
Transfer acceptability: CSU
Advanced concepts and methods of Illustrator and its use in graphic illustrations and problem solving. Software capabilities for use in preparing computer files for publishing to digital and electronic delivery systems.
- GCIP 260 Portfolio Development and Presentation (3)**
(Formerly GC 260)
6 hours lecture/laboratory
Prerequisite: GCIP/R GCIP 140 and/or GCIP/R GCIP 152
Note: Cross listed as RGCIP 260; may be taken 2 times
Students will develop a personal portfolio to showcase their graphic skills and techniques. Various resources, including the Internet, will be used to conduct a job search, develop a resume and learn interviewing techniques. Guest speakers will share industry tips. Students will practice presentation and interviewing skills, with feedback from professionals working in graphics and related industries.
- GCIP 270 Commercial Screen Printing (3)**
(Formerly GC 174)
6 hours lecture/laboratory
Prerequisite: GCIP/R GCIP 170 and GCIP/R GCIP 172
Note: May be taken 4 times
Transfer acceptability: CSU
Commercial screen printing applications. Preparation of mechanicals using close registration and printing on standard and unusual surfaces. Color, mechanical process, and quality control standards in screen printing.
- GCIP 280 Digital Prepress and Press III (3)**
(Formerly GC 185)
6 hours lecture/laboratory
Prerequisite: GCIP 182
Note: May be taken 4 times
Transfer acceptability: CSU
Advanced work on larger format offset equipment focusing on sheet control, register, ink and water control, and digital imposition.

GCIP 290 Copyright for Graphic Designers & Web Developers (1)

(Formerly GC 290)

1 hour lecture

Prerequisite: GCIP/R GCIP 149 and/or GCMW/R GCMW 102**Note:** Cross listed as GCMW 290; may be taken 4 times

Copyright is an old and well codified area of law. The statutes and cases, however, have created complexities that are sometimes difficult to understand. This course covers the basics of copyright law, copyright registration, methods of informing viewers of copyright protections and liability, and the ways in which a graphic designer may enforce copyright. The damages and remedies of injunction and compensation are included.

GCIP 291 Contracts for Graphic Designers & Web Developers (1)

(Formerly GC 291)

1 hour lecture

Prerequisite: GCIP/R GCIP 149 and/or GCMW/R GCMW 102**Note:** Cross listed as GCMW 291; may be taken 4 times

Graphic designers, whether employed by business or freelance, need to understand contract terms, negotiation, conditions, and the statutory and case law uniquely applicable to graphic design. Understanding the terms of a contract is essential to protecting the rights to use of work product and obtaining compensation. Failing to do so usually results in abuse of rights and non-compensation.

GCIP 292 Legal Issues for Graphic Designers and Web Developers (3)

(Formerly GC 292)

3 hours lecture

Prerequisite: GCIP/R GCIP 149 and/or GCMW/R GCMW 102**Note:** Cross listed as GCMW 292

This course will cover most legal issues that confront graphic designers and web developers in the day-to-day operation of the businesses. Specific legal issues will include business formation, contracts, copyright, licensing, deep linking, click wrap agreements, and the risks and benefits of self employment versus employment by a business.

GCIP 295 Directed Study in Graphic Communications (1,2,3)

(Formerly GC 295)

3, 6, or 9 hours laboratory

Prerequisite: Approval of project or research by department chairperson/director**Note:** Cross listed as GCMW 295; may be taken 4 times**Transfer acceptability:** CSU

Independent study for students who have demonstrated skills and/or proficiencies in Graphic Communications subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

GCIP 296 Special Projects (1,2,3)

(Formerly GC 296)

2, 4, or 6 hours lecture/laboratory

Recommended preparation: Advanced coursework or job-related experience**Note:** Cross listed as GCMW 296; may be taken 4 times**Transfer acceptability:** CSU

Independent work on a specified sustained project which does not fit into the context of regularly scheduled classes. Students work from a contract agreed upon by the student and the instructor.

Graphic Communications - Multimedia & Web (GCMW)

See also Graphic Communications and Graphic Communications - Imaging & Publishing

Contact the Graphic Communications Department for further information, (760) 744-1150, ext. 2452. For transfer information, consult a Palomar College counselor.

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAMS OF STUDY**Digital Animation, Compositing, and Music**

This program is directed at the digital design and implementation of 3D animations, graphic compositing and music.

CERTIFICATE OF PROFICIENCY

Program Requirements (5 courses minimum required, 15 units total)		Units
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
MUS 180	Computer Music I	3
MUS 184	Electronic Ensemble	3

TOTAL UNITS 15

Digital Animation, Compositing, and Music Certificate of Proficiency is also listed in Art and in Music.

Digital Media

Digital Media encompasses digital video editing in both analog and digital media. The certificate prepares students for employment in the film, video, Internet, and television industries. Major growth in this industry is anticipated as Internet and television merge into one medium.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
CINE/		
RTV 125 or	Beg Film/Video Field Production	
GCIP/		
R GCIP 140	Digital Imaging/Photoshop I	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television & Film	3

TOTAL UNITS 15

Digital Media Certificate of Achievement is also listed under Radio and Television.

Digital Video

Digital Video encompasses editing and design in using both digital and analog media. This degree prepares students for employment in the film, video, Internet, and television industries.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP/		
R GCIP 140	Digital Imaging/PhotoShop I	3
GCMW 165	Digital Video Design	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
RTV/CINE 125	Beg Film/Video Field Production	3
RTV 230	Digital Audio with Pro Tools	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television and Film	3

Electives (2 courses minimum required, 6 units total)

ARTI 246	Digital 3D Design and Modeling	3
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ARTI 247	Digital 3D Design and Animation	3
DT 180	3D Studio Max-Intro to 3D Modeling/Animation	3
GCIPI/		
R GCIPI 152	Desktop Publishing/Illustrator I	3
GCIPI 240	Digital Imaging/PhotoShop III	3
GCMW/		
R GCMW 101	Multimedia I	3
GCMW 201	Multimedia II	3
GCMW 203	Web Multimedia	3
GCMW 108	Web Motion Graphics I	3
GCMW 208	Web Motion Graphics II	3
RTV 50	Basic Television Acting	1
RTV 110	Broadcast Writing and Producing	3
RTV/ENTT 120	Digital Television Production	3
RTV 150	Performance and Acting for Broadcast and Film	3
RTV 170	Introduction to Video Editing	3
RTV/CINE 225	Intermediate Film and Video Field Production	3
TOTAL UNITS		30

Digital Video A.A. Degree Major or Certificate of Achievement is also listed under Radio and Television.

E - Commerce Design

Provides students with a basis for understanding and participating in the design and production of e-business and e-commerce. Specific skills for the E-Commerce Design certificate include Web production, site accessibility, shopping carts, site and data management, security, privacy, and commercial site promotion. Teamwork, problem solving, production process, communication and creativity are core competencies. Upon completion of the certificate, the student may find a job as a graphic designer, Web author, or graphical user interface designer.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units
BUS 157	E-Commerce 3
GCIPI/	
GPMW 290 or	Copyright for Graphic Design and Web Developers
GCIPI/	
GCMW 291	Contracts for Graphic Design and Web Developers 1
GCMW 202	Web Page Layout II 3
GCMW 217	Online Store Design I 3
GCMW 218	Online Store Design II 3
GCMW 220 or	Designing for Web Standards I
GCMW 216	Web Data Base Design I 3
GCMW 232	Web Accessibility Design 1
TOTAL UNITS	17

Interactive Media Design

Prepares students with specific skills necessary for employment in the field of multimedia design and production. Students may choose an emphasis in either 3D modeling and animation, which emphasizes production skills and authoring systems, or multimedia design, which emphasizes content development and visual design of multimedia productions. Both areas of emphasis collaborate on an actual multimedia production.

Emphasis in 3D Modeling and Animation

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
ARTI 100	Introduction to Illustration 3
ARTI 246	Digital 3D Design and Modeling 3
ARTI 247	Digital 3D Design and Animation 3
DT 180	3D Studio Max-Intro to 3D Modeling/Animation 3

DT 182	3D Studio Max-Adv 3D Modeling/Animation	3
GCIPI/		
R GCIPI 140	Digital Imaging/Photoshop I	3
GCMW 204	Motion Graphics for Multimedia	3
Electives (Select two courses)		
ART 241	Computer Graphics	3
ART 248	Character Animation	1.5
ARTD 150	Digital Concepts/Techniques in Art	3
ARTD 220	Motion Design	3
DT/R DT 128	SolidWorks Intro 3D Design and Presentation	3
DT 184	Real Time 3D Technical/Game Animation	2
GCIPI 240	Digital Imaging/Photoshop III	3
GCMW 201	Multimedia II	3
ENTT/RTV 120	Digital Television Production	3
RTV 124	Staging and Lighting for Television	3
TOTAL UNITS		24.5 - 27

Emphasis in Multimedia Design

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
ARTD 100	Graphic Design I 3
ARTD 220	Motion Design 3
ARTI 247	Digital 3D Design and Animation 3
GCIPI 240	Digital Imaging/Photoshop III 3
GCMW/	
R GCMW 101	Multimedia I 3
GCMW 201	Multimedia II 3
GCMW 204	Motion Graphics/Multimedia 3
Electives (Select two courses)	
ART 197G	Topics in Art - Computer Art 3
ARTD 150	Digital Concepts and Techniques in Art 3
ARTI 246	Digital 3D Design/Modeling 3
DT 180	3D Studio Max-Intro to 3D Modeling/Animation 3
DT 182	3D Studio Max-Adv 3D Modeling/Animation 3
GC 100	Graphic Communications 3
GCIPI/	
R GCIPI 140	Digital Imaging/Photoshop I 3
GCIPI/	
R GCIPI 152	Desktop Publishing/Illustrator I 3
GCMW/	
R GCMW 102	Web Page Layout I 3
GCMW 197B	Topics in Multimedia 3
GCMW 203	Web Multimedia 3
MUS 180	Computer Music I 3
RTV 170	Introduction to Video Editing 3
TOTAL UNITS	27

Interactive Media Design A.A. Degree or Certificate of Achievement is also listed in Art and in Drafting Technology.

Interactive Web Multimedia and Audio

This program is directed at interactive methods of Web production that include creation of audio for the Internet. Students will learn techniques and software to create animated and interactive Web sites and audio production for the Internet.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements	Units
GCMW/	
R GCMW 101	Multimedia I 3
GCMW/	
R GCMW 102	Web Page Layout I 3

GCMW 108	Web Motion Graphics I	3
GCMW 123	Audio for the Internet	3
GCMW 140	Web Graphics	3
GCMW 203	Web Multimedia	3
GCMW 208	Web Motion Graphics II	3
GCMW 229	Interactive Streaming Media	3

Electives (select 2 courses)

GCIP/		
R GCIP 140	Digital Imaging/PhotoShop I	3
GCIP 141	Digital Imaging/PhotoShop II	3
GCIP 240	Digital Imaging/PhotoShop III	3
GCMW 104	Motion and Sound	3
GCMW 165	Digital Video Design	3
GCMW 202	Web Page Layout II	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	
GCMW 220	Designing for Web Standards I	3
GCMW 221	Designing for Web Standards II	3
GCMW 228	Web Motion Graphics III	3
GCMW 236	Flash Game Design	3
MUS 180	Computer Music I	3
RTV 230	Digital Audio with Pro Tools	3

TOTAL UNITS **30**

Internet

As the vast web of global and local information networks grow, several skills and forms of literacy are becoming essential for anyone who wants to obtain the full benefits of the Communications Age.

An individual's ability to capitalize on the opportunities offered by interactive communications requires mastery of these information and communication proveniences:

- **Navigational skills** - The ability to move smoothly among arrays of autonomous and globally interconnected information, contacts, forums, and discussion groups in order to locate and connect to information and expertise from relevant sources.
- **Information literacy** - An understanding of which information is most useful, relevant, and reliable, as well as the ability to analyze, distill, integrate, compose, and classify information to create knowledge.
- **Distribution skills** - Frameworks for rethinking methods of packaging, presenting, providing access, and disseminating information and knowledge in this new medium.
- **Communications literacy** - Integrating new forms of information, knowledge, and message development into evolving patterns of organizational and interpersonal communication.

This certificate offers preparation skills for the above areas of emphasis involving the Internet.

Emphasis in Graphic Communication**A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT**

Program Requirements		Units
BUS 157	E-Commerce	3
CSIS/R CSIS 137	Web Site Development with XHTML	2
GCMW/		
R GCMW 102 or	Web Page Layout I	
GCMW/		
R GCMW 103	Interactive Publishing with PDFs	3
GCMW 108	Web Motion Graphics I	3
GCMW 140	Web Graphics	3
GCMW 202	Web Page Layout II	3

GCMW 217 or	Online Store Design I	
GCMW 229	Interactive Streaming Media	3
GCMW 220	Designing for Web Standards I	3

TOTAL UNITS **23**

Internet - Emphasis in Business Education

See Business Education

Internet Publisher

Prepares students with specific skills necessary for entry-level employment in the field of Web design and production. Students will be able to design and produce simple Websites that have text, graphics, and multimedia.

CERTIFICATE OF PROFICIENCY

Program Requirements		Units
GCMW/		
R GCMW 102	Web Page Layout I	3
GCMW 140	Web Graphics	3
GCMW 203	Web Multimedia	3
GCMW 220	Designing for Web Standards I	3

TOTAL UNITS **12**

New Media Compositing, Authoring and Distribution

This program is directed at alternative methods of digital video compilation and release. Students will learn techniques and software to compile and composite digital video for release on CD ROM, DVD, and the Internet.

A.A. DEGREE MAJOR OR CERTIFICATE OF ACHIEVEMENT

Program Requirements		Units
GCIP 240	Digital Imaging/PhotoShop III	3
GCMW/		
R GCMW 101	Multimedia I	3
GCMW 201	Multimedia II	3
GCMW 165	Digital Video Design	3
GCMW 204	Motion Graphics for Multimedia	3
GCMW 205	Digital Video for Multimedia	3
GCMW 206	Motion Graphics Production and Compositing	3
GCMW 229	Interactive Streaming Media	3

Electives (2 course minimum required, 6 units total)

ARTD 220	Motion Design	3
ARTI 246	Digital 3D Design and Modeling	3
ARTI 247	Digital 3D Design and Animation	3
GC 101	History of Graphic Communications	3
GCIP/		
R GCIP 140	Digital Imaging/PhotoShop I	3
GCIP 141	Digital Imaging/PhotoShop II	3
GCIP/		
R GCIP 152	Desktop Publishing/Illustrator I	3
GCIP/		
GCMW 295	Directed Study in Graphic Communications	3
GCIP/		
GCMW 296	Special Projects	3
GCMW/		
R GCMW 102	Web Page Layout I	3
GCMW 202	Web page Layout II	3
GCMW 108	Web Motion Graphics I	3
GCMW 208	Web Motion Graphics II	3
GCMW 228	Web Motion Graphics III	3
GCMW 123	Audio for the Internet	3
GCMW 203	Web Multimedia	3
GCMW 220	Designing for Web Standards I	3

GCMW 221	Designing for Web Standards II	3
GCMW 236	Flash Game Design	3
RTV 170	Introduction to Video Editing	3
RTV 230	Digital Audio with Pro Tools	3
RTV 270	Digital Video Editing	3
RTV 275	Avid Editing for Television and Film	3
TOTAL UNITS		30

Video Game Artist

This certificate program introduces students to the video game industry, game design, and the creation of both 2D and 3D artwork for video games.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units	
CSIS 241 Overview of the Video Game Industry	4	
CSIS 242 Game Design	4	
ART 241 or GCIP/	Computer Graphics	
R GCIP 140 or GCIP 141 or GCIP 240	Digital Imaging/Photoshop I Digital Imaging/Photoshop II Digital Imaging/Photoshop III	3
ARTI 246 or DT 180 or DT 182	Digital 3D Design and Modeling 3D Studio Max – Intro 3D Modeling/Animation 3D Studio Max – Adv 3D Modeling/Animation	3
ARTD 220 or ARTI 247 or DT 184 or GCMW 204	Motion Design Digital 3D Design and Animation Real Time 3D Technical/Game Animation Motion Graphics for Multimedia	2,3
TOTAL UNITS		16 - 17

Video Game Artist Certificate of Proficiency is also listed under Computer Science and Information Systems.

Web Data Base Design

The Web site developer must present the complexity and volume of information so that the site's visitor may make decisions quickly and accurately. Data-driven dynamic pages are also interactive, allowing the visitor to choose the information that they would like to see. The increasingly sophisticated site development for online stores and multimedia, for example, requires a range of diverse and multifaceted skills from database design, computer graphics, Web design, site design and architecture, graphical user interface design, to cross-platform competence. The World Wide Web, as a graphical user interface, offers new career opportunities to graphic designers who have the skills to maintain sites that contain large amounts of data that changes frequently. The ability to package, share, and manage data to consumers across the Internet is in high demand. The Web Data Base Design certificate prepares for employment in dynamic business environments that need large-scale as well as smaller sites.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units	
GCMW 202 Web Page Layout II	3	
GCMW 216 Web Data Base Design I	3	
GCMW 217 or GCMW 218	Online Store Design I Online Store Design II	3
GCMW 220	Designing for Web Standards I	3
GCMW 226	Web Data Base Design II	3
Elective Courses (Select one course)		
BUS 180	Access for Business	1
CSIS 173	Designing Microsoft SQL Server Database	3
CSIS 268	Active Server Pages	3
GCIP/ GCMW 290	Copyright for Graphic Designers/Web Developers	1
GCIP/ GCMW 291	Contracts for Graphic Designers/Web Developers	1
GCIP/ GCMW 292	Legal Issues Graphic Designers/Web Developers	3

GCMW 154	Preparing Web Graphics	1
GCMW 164	Interactive Web Graphics	1
TOTAL UNITS		16 - 18

Web Graphics

Designed to meet the increasing needs of organizations and businesses that publish on the World Wide Web. Specific skills for the Web Graphics certificate include typography, visual acuity, graphic design, Web color, and file formats. The certificate prepares students to gain competence with the basic applications used in industry for digital graphics and Web publishing. Teamwork, problem solving, workflow and production process, communication and creativity are core competencies. Upon completion of the certificate, the student may find a job as a Web production artist, graphic production assistant, or graphic designer.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units	
GCMW/ R GCMW 102	Web Page Layout I	3
GCMW 202	Web Page Layout II	3
GCMW 108	Web Motion Graphics I	3
GCMW 140	Web Graphics	3
GCMW 154 or GCMW 164	Preparing Web Graphics Interactive Web Graphics	1
GCMW 203	Web Multimedia	3
GCMW 232	Web Accessibility Design	1
TOTAL UNITS		17

Web Motion Graphics

Prepares students with specific skills necessary for employment in the field of Interactive Web multimedia design and production. A high level of skill and time are needed to create professional motion graphics. Specific skills include an attention to detail, knowledge of various illustration and animation software, technical and analytical problem solving, and visual acuity. Teamwork, creativity, communication, understanding of the production process and interactivity are core competencies. Typical job opportunities are in entertainment, business, corporate, and educational industries.

CERTIFICATE OF PROFICIENCY

Program Requirements	Units	
GCMW/ R GCMW 102	Web Page Layout I	3
GCMW 108	Web Motion Graphics I	3
GCMW 208	Web Motion Graphics II	3
GCMW 164	Interactive Web Graphics	1
GCMW 203	Web Multimedia	3
GCMW 229	Interactive Streaming Media	3
TOTAL UNITS		16

COURSE OFFERINGS

GCMW 101	Multimedia I	(3)
(Formerly GC 200)		
6 hours lecture/laboratory		
Note: Cross listed as R GCMW 101; may be taken 4 times		
Transfer acceptability: CSU		
Introduction to multimedia authoring software combining text, graphics, sound, animation, video clips and user interface to produce effective visual presentations.		
GCMW 102	Web Page Layout I	(3)
(Formerly GC 202)		
6 hours lecture/laboratory		
Note: Cross listed as R GCMW 102; may be taken 4 times		
Transfer acceptability: CSU		
A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, and structured page design for effective Internet communications.		

GCMW 102A Web Page Layout IA (1.5)

(Formerly GC 230)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, graphics preparation and structured page design for effective Internet communications. The course is designed to introduce students to Web production and site maintenance; special projects facilitate the needs of more advanced students. (For beginning and intermediate levels).

GCMW 102B Web Page Layout IB (1.5)

(Formerly GC 231)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, graphics preparation and structured page design for effective Internet communications. The course is designed to introduce students to Web production and site maintenance; special projects facilitate the needs of more advanced students. (For beginning and intermediate levels).

GCMW 103 Interactive Publishing with PDF's (3)

(Formerly GC 203)

6 hours lecture/laboratory

Note: Cross listed as R GCMW 103; may be taken 4 times**Transfer acceptability:** CSU

This hands-on course looks at a comprehensive range of print, Web, and multimedia features in Adobe Acrobat for creating and distributing electronic documents reliably and securely. Topics and projects include e-books, forms, editing, prepress, accessibility, capture, and a variety of methods to convert and repurpose documents.

GCMW 104 Motion and Sound (3)

(Formerly GC 104)

6 hours lecture/laboratory

Note: May be taken 4 times

Introduction to combining motion with sound for multimedia. Includes an overview of motion graphics and sound design for the multimedia industry. Course will consider current trends in motion graphics and soundtracks for film titles, television programs and advertising, interactive media and experimental works. This is a hands-on course using digital tools for creating and editing audio and motion graphics.

GCMW 108 Web Motion Graphics I (3)

(Formerly GC 208)

6 hours lecture/laboratory

Note: May be taken 4 times**Transfer acceptability:** CSU

Introduction of core concepts: vectors, the Stage, Scenes, Timelines, Layers, Keyframes, Shapes, Symbols (Graphic, Button, Movie Clip), Tweening, native drawing tools and external editors, frame-by-frame animation, Actions and Actionscript. Development of basic skills in web motion graphics. Exporting and embedding SWF files in Web pages. Macromedia's Flash will be used to create dynamic visual presentations with auditory components to communicate more effectively on the Web.

GCMW 108A Web Motion Graphics IA (1.5)

(Formerly GC 234)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, graphics preparation and structured page design for effective Internet communications. The course is designed to introduce students to Web production and site maintenance; special projects facilitate the needs of more advanced students. (For beginning and intermediate levels).

GCMW 108B Web Motion Graphics IB (1.5)

(Formerly GC 235)

3 hours lecture/laboratory

Note: May be taken 4 times **Transfer acceptability:** CSU

A hands-on introduction to page layout for the Internet. Typographic considerations, screen layout, graphical interfaces, graphics preparation and structured page design for effective Internet communications. The course is designed to introduce students to Web production and site maintenance; special projects facilitate the needs of more advanced students. (For beginning and intermediate levels).

GCMW 123 Audio for the Internet (3)

(Formerly GC 223)

6 hours lecture/laboratory

Note: May be taken 4 times**Transfer acceptability:** CSU

Introduction to sound and audio on the World Wide Web. Topics covered include digitizing audio for the internet, audio formats, optimization techniques and bandwidth considerations. This is a hands-on class using audio editing, html, and graphics editing software. Upon completion of course, student will create and publish a website incorporating audio on the internet.

GCMW 140 Web Graphics (3)

(Formerly GC 144)

6 hours lecture/laboratory

Note: May be taken 4 times**Transfer acceptability:** CSU

The Graphical User Interface is a major component of Web design and production. This course includes industry standard techniques for Web graphics and other display media. It covers the mechanics for image production as well as methodologies for asset management, file compression, scanning, animation, image maps, slices, interactive rollovers, navigation, integration with multiple applications, layouts for screens, GIF and JPEG file formats, image resolution, and color depth.

GCMW 154 Preparing Web Graphics (1)

(Formerly GC 154)

2 hours lecture/laboratory

Note: May be taken 4 times**Transfer acceptability:** CSU

Hands-on course to produce optimized graphics for the Web with applications such as Adobe's ImageReady or Macromedia's Fireworks, cross-platform production environments: edit bitmap and vector graphics; format text; select Web-safe color; simple animation; generate HTML and JavaScript automatically; integrate with other Web production applications.

GCMW 164 Interactive Web Graphics (1)

(Formerly GC 164)

2 hours lecture/laboratory

Note: May be taken 4 times**Transfer acceptability:** CSU

Hands-on course to produce optimized graphics for the Web with applications such as Adobe's ImageReady or Macromedia's Fireworks, cross-platform production environments: design complex buttons and navigation bars, image maps, slicing complex graphics, animation, batch processing, and scripting; generate HTML and JavaScript automatically; integrate with other Web Production applications.

GCMW 165 Digital Video Design (3)

(Formerly GC 165)

6 hours lecture/laboratory

Note: May be taken 3 times

Explores project planning, setup, editing and output of Digital Video. Incorporates sound, graphics, 2D animation and text for full-screen, web, CD-ROM, or DVD playback. Projects and assignments utilize transitions, superimposing, transparency and keying along with video, audio and other special effects.

GCMW 197A Topics in Internet (.5-.5)

(Formerly GC 197D)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU

Graphic Communications topics in Internet. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCMW 197B Topics in Multimedia (.5-5)
(Formerly GC 197E)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times

Transfer acceptability: CSU

Graphic Communications topics in multimedia. See Class Schedule for specific topic offered. Course title will designate subject covered.

GCMW 201 Multimedia II (3)
(Formerly GC 201)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 101

Recommended preparation: GCMW 165 or GCMW 205

Note: May be taken 4 times

Transfer acceptability: CSU

Strategies and techniques for designing successful user multimedia interface. There will be emphasis on usability and design issues, incorporation of underlying metaphors, screen design, and navigational styles. Authoring systems, video compositing, digital imaging and audio editing applications will be explored.

GCMW 202 Web Page Layout II (3)
(Formerly GC 212)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 102 and GCMW 140

Note: May be taken 4 times

Transfer acceptability: CSU

Multimedia web site design and production using advanced WYSIWYG editor that permits editing hypertext markup language (HTML) as well as designing to current standards of CSS and interactivity. Includes mechanics for site production as well as methodologies for project planning and management.

GCMW 203 Web Multimedia (3)
(Formerly GC 206)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 102

Recommended preparation: GCIP/R GCIP 140

Note: May be taken 4 times

Transfer acceptability: CSU

Open discussion of current technologies, social issues, and design theory directly related to multimedia for the Internet and the World Wide Web. Experimental and practical application of multimedia in graphical user interface and user navigation design via assigned class projects.

GCMW 204 Motion Graphics for Multimedia (3)
(Formerly GC 204)

6 hours lecture/laboratory

Prerequisite: GCMW 165

Recommended preparation: GCIP/R GCIP 140

Note: May be taken 4 times

Transfer acceptability: CSU

Explores project planning, setup, execution, and output of motion-based graphics. Incorporates exploration and integration of sound, graphics, digital video, 2-D animation, and text for multimedia.

GCMW 205 Digital Video for Multimedia (3)
(Formerly GC 207)

6 hours lecture/laboratory

Prerequisite: GCMW 165 and GCMW 204

Note: May be taken 4 times

Transfer acceptability: CSU

Exploration of concepts, design and development of digital video production and editing skills as they relate to CD Rom/DVD, Internet, and Digital Video Tape.

GCMW 206 Motion Graphics Production and Compositing (3)
(Formerly GC 213)

6 hours lecture/laboratory

Prerequisite: GCMW 204 and GCMW 205

Note: May be taken 4 times

This course will be a "cap course" in which the student combines skills learned in multiple disciplines. For example the student will combine video skills learned in Graphic Communications and RTV with skills learned in ART or CAD by compositing a video that incorporates 3D rendered characters with live video footage. The student will complete the work by preparing it for publication using VHS, DVD, and online Streaming technologies.

GCMW 208 Web Motion Graphics II (3)
(Formerly GC 209)

6 hours lecture/laboratory

Note: May be taken 4 times

Transfer acceptability: CSU

Development of intermediate skills in web motion graphics: introduction of object-oriented design as applied to dynamic animation presentations; communication between graphical elements and instances; use of scripting and variables; creation of sound objects; use of components to improve efficiency; using Dynamic Text and ActionScript. Integrating digital audio and video with Flash presentations. Macromedia's Flash will be used to create dynamic visual presentations with audio and video assets to communicate more effectively on the Web.

GCMW 214 Designing Data Bases Visually (3)
(Formerly GC 214)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 102 and GCMW 202

Note: May be taken 4 times

Transfer acceptability: CSU

Organize and track people, projects, images and information in visually designed cross-platform relational data bases using graphic tools via wizards, templates and custom capabilities. Lay out powerful forms for the end user implementing graphical user interface standards. Publish for print and Web and intranet. Share and integrate secure data with workgroups across networks or other applications. Course is hands-on and will feature such applications as FileMaker Pro.

GCMW 216 Web Data Base Design I (3)
(Formerly GC 216)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 102

Recommended preparation: GCMW 202

Note: May be taken 4 times

Transfer acceptability: CSU

Hands-on course for creating Web pages that draw dynamic content from databases. Design and create a simple database for use on the Web. Create Web forms that add, modify or delete records from a database. Plan and implement a Web application using modern Web design tools such as Dreamweaver.

GCMW 217 Online Store Design I (3)
(Formerly GC 217)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 102 and GCMW 202

Note: May be taken 4 times

Transfer acceptability: CSU

Design of interactive commercial web sites with emphasis on online shopping cart and database creation and management. Hands-on production of an online store. Perspective through web store case studies and models. Evaluation of various e-commerce solutions, security/privacy and payment options, site promotion/advertising, analysis tools and trends in appropriate web graphics, multimedia and software. Project management methods for e-commerce site life cycle.

GCMW 218 Online Store Design II (3)
(Formerly GC 218)

6 hours lecture/laboratory

Prerequisite: GCMW/R GCMW 102 and GCMW 202

Note: May be taken 4 times

Transfer acceptability: CSU

Hands-on design and production of interactive commercial Web sites with emphasis on complex data-driven online shopping carts. Perspective through Web store case studies and models. Emphasis on forms production to send and dynamically display data for catalog, inventory, customers, etc. Produce components such as guest books, counters, e-mail, etc. to enhance an e-commerce site. Project Management methods for e-commerce site life cycle.

GCMW 220 Designing for Web Standards I (3)

(Formerly GC 215)

6 hours lecture/laboratory

Prerequisite: GCMW 202

Recommended preparation: GCMW/R GCMW 102

Note: May be taken 4 times

Transfer acceptability: CSU

Web site design and production using the current standards of the hypertext markup language (HTML) and other advanced tools (multimedia applications and Java Script, Java, etc.). Use of HTML editors for site authoring and mechanics as well as methodologies for project planning and management.

GCMW 221 Designing for Web Standards II (3)

(Formerly GC 219)

6 hours lecture/laboratory

Prerequisite: GCMW 202 and GCMW 220

Note: May be taken 4 times

Current standards of Web design set forth by the W3C mandate changes in the way Web designers create their Web pages. This course teaches the use of XHTML and CSS to implement Web typography and advanced Web page layouts that comply with current Web standards. Use of modern Web page layout and design tools such as Dreamweaver to aid your work flow will also be taught.

GCMW 226 Web Data Base Design II (3)

(Formerly GC 226)

6 hours lecture/laboratory

Prerequisite: GCMW 202 and GCMW 216

Note: May be taken 4 times

Transfer acceptability: CSU

Advanced topics in the use of databases on the Web. Plan and implement an advanced Web application using robust Web database servers. Build your application using advanced Web design tools such as Dreamweaver.

GCMW 228 Web Motion Graphics III (3)

(Formerly GC 211)

6 hours lecture/laboratory

Prerequisite: GCMW 108

Recommended preparation: GCMW 208

Note: May be taken 4 times

Transfer acceptability: CSU

Dynamic Web content - explore the creation of dynamic Flash presentations. Skinnable components and presentations. Incorporating server-side technologies: Flash as a front-end to a database; using Flash Communications Server and Cold-Fusion MX to enable rich internet application capabilities. Production of audio and digital video for Flash; integration of non-embedded media.

GCMW 229 Interactive Streaming Media (3)

(Formerly GC 229)

6 hours lecture/laboratory

Recommended preparation: GCMW 104 and GCMW 202

Note: May be taken 3 times

This course explores the various aspects of interactive streaming for the web. It combines lecture, hands on lessons, exercises, projects, and group work to build skills in the interactive streaming process. Students evaluate and select streaming methods, develop and author various media, and deliver the content in appropriate formats. Particular attention is given to design, usability, and applicable uses of interactive streaming media on the web.

GCMW 232 Web Accessibility Design (1)

(Formerly GC 232)

2 hours lecture/laboratory

Prerequisite: GCMW 202 and GCMW 220

Note: May be taken 4 times

Evaluate screen and Web design techniques to maximize accessibility by people with physical disabilities. Implement tools to convert documents to accessible formats. Produce sites that are accessible. Use various resources from the World Wide Web Consortium and publishers such as checklists, examples of code, conversion tools, test tools, etc. Review legal requirements (Americans with Disabilities Act and the Web Accessibility Initiative) for various sectors to provide fully accessible Web sites.

GCMW 236 Flash Game Design (3)

(Formerly GC 236)

6 hours lecture/laboratory

Prerequisite: GCMW 108 and GCMW 208

Note: May be taken 4 times

A hands-on introduction to game design using Flash 5. ActionScript for game development, screen layout, game interfaces, and structured game layout for effective game design. The course is designed to introduce students to Flash game design and concepts. Projects apply ActionScript and game layout principles. (For beginning and intermediate levels).

GCMW 290 Copyright for Graphic Designers & Web Developers (1)

(Formerly GC 290)

1 hour lecture

Note: Cross listed as GCIP 290; may be taken 4 times

Copyright is an old and well codified area of law. The statutes and cases, however, have created complexities that are sometimes difficult to understand. This course covers the basics of copyright law, copyright registration, methods of informing viewers of copyright protections and liability, and the ways in which a graphic designer may enforce copyright. The damages and remedies of injunction and compensation are included.

GCMW 291 Contracts for Graphic Designers & Web Developers (1)

(Formerly GC 291)

1 hour lecture

Note: Cross listed as GCIP 291; may be taken 4 times

Graphic designers, whether employed by business or freelance, need to understand contract terms, negotiation, conditions, and the statutory and case law uniquely applicable to graphic design. Understanding the terms of a contract is essential to protecting the rights to use of work product and obtaining compensation. Failing to do so usually results in abuse of rights and non-compensation.

GCMW 292 Legal Issues for Graphic Designers & Web Developers (3)

(Formerly GC 292)

3 hours lecture

Note: Cross listed as GCIP 292

This course will cover most legal issues that confront graphic designers and web developers in the day-to-day operation of the businesses. Specific legal issues will include business formation, contracts, copyright, licensing, deep linking, click wrap agreements, and the risks and benefits of self employment versus employment by a business.

GCMW 295 Directed Study in Graphic Communications (1,2,3)

(Formerly GC 295)

3, 6, or 9 hours laboratory

Prerequisite: Approval of project or research by department chairperson/director

Note: Cross listed as GCIP 295; may be taken 4 times

Transfer acceptability: CSU

Independent study for students who have demonstrated skills and/or proficiencies in Graphic Communications subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

GCMW 296 Special Projects (1,2,3)

(Formerly GC 296)

2, 4, or 6 hours lecture/laboratory

Note: Cross listed as GCIP 296; may be taken 4 times**Transfer acceptability:** CSU

Independent work on a specified sustained project which does not fit into the context of regularly scheduled classes. Students work from a contract agreed upon by the student and the instructor.

Health (HE)

Contact the Physical Education Department for further information, (760) 744-1150, ext. 2462

COURSE OFFERINGS**HE 100 Health Education and Fitness Dynamics (3)**

3 hours lecture

Corequisite: HE 100L**Transfer acceptability:** CSU; UC

Individual well being will be developed through the study of the emotional, spiritual, intellectual, social, and physical qualities of health.

HE 100L Health Performance Lab (1,1.5,2)

3, 4.5, or 6 hours laboratory

Corequisite: HE 100**Transfer acceptability:** CSU; UC

Fitness lab course designed to develop and encourage positive attitude and habits with regards to Health Education and fitness dynamics. Lab activity will primarily utilize exercise equipment as it relates to cardiovascular efficiency, body composition, muscular strength and endurance and flexibility. An individual fitness profile will be established, including pre-post testing, to determine each students' fitness accomplishments.

HE 165 Fundamentals of Nutrition (3)

3 hours lecture

Note: Cross listed as FCS 165**Transfer acceptability:** CSU; UC – FCS 165, FCS 185, BIOL 185, HE 165 combined: maximum credit, one course; CAN FCS 2

The study of how food nourishes the body. Investigation of diet fads and fallacies. Eating for fitness, and planning meals for optimum health throughout the life cycle.

HE 197 Current Topics in Health (1,2,3)

1, 2, or 3 hours lecture

Note: May be taken 4 times with different subject matter**Transfer acceptability:** CSU

Current issues in health education meeting student and community educational needs dealing with the social, mental, and physical aspects of personal health. Course title will designate subject covered.

Health Occupations

See Emergency Medical Education, Dental Assisting, Medical Assisting, and Nursing Education

History (HIST)

Contact the Economics, History and Political Science Department for further information, (760) 744-1150, ext. 2412

COURSE OFFERINGS**HIST 101 History of the United States Through Reconstruction (3)**

3 hours lecture

Note: This course plus History 102 meets the State requirement in American History and Institutions.**Transfer acceptability:** CSU; UC – HIST 101 and 102 or AS 101 and 102 com-

bined: maximum credit, one pair; CAN HIST 8; HIST 101+102=CAN HIST SEQ B

Political, economic, social, and cultural development of the American people through Reconstruction with particular emphasis on the colonial period; the Revolution; constitutional development; westward expansion with emphasis on California and frontier influences; emergence of sectionalism; the Civil War and Reconstruction.

HIST 102 History of the United States Since Reconstruction (3)

3 hours lecture

Note: This course plus History 101 meets the State requirement in American History and Institutions.**Transfer acceptability:** CSU; UC – HIST 101 and 102 or AS 101 and 102 combined: maximum credit, one pair; CAN HIST 10; HIST 101+102=CAN HIST SEQ B

Political, economic, social, and cultural developments of the American people since Reconstruction. Emphasis will be on the westward and farm movements, industrial development, twentieth century reform movements, the United States as a world power, and civil rights. Special consideration will be given to the development of California state and local government.

HIST 105 History of Western Civilization Through the Reformation (3)

3 hours lecture

Transfer acceptability: CSU; UC; CAN HIST 2, HIST 105+106=CAN HIST SEQ A

A survey of ancient civilizations, Greece, Rome and medieval Europe, with emphasis on the heritage, ideas, attitudes, and institutions basic to Western Civilization.

HIST 106 History of Western Civilization Since the Reformation (3)

3 hours lecture

Transfer acceptability: CSU; UC; CAN HIST 4, HIST 105+106=CAN HIST SEQ A

Emergence of modern Europe, expansion of European power and influences; emphasis on cultural and intellectual trends which affect Western civilization in the Twenty-first Century.

HIST 107 World History to 1650 (3)

3 hours lecture

Transfer acceptability: CSU; UC

The growth of civilizations and the interrelationships of the peoples of Europe, Asia, Africa, and America to 1650.

HIST 108 World History Since 1650 (3)

3 hours lecture

Transfer acceptability: CSU; UC

The development of the civilizations and the interrelationships of the peoples of Europe, Asia, Africa, and America since 1650.

HIST 110 History of the Modern Far East (3)

3 hours lecture

Transfer acceptability: CSU; UC

A survey of the cultural, political, and economic trends in Eastern Asia during the Nineteenth and Twentieth Centuries; penetration and impact of the West; post World War II developments including revolution, independence, modernization, and communication.

HIST 114 American Military History (3)

3 hours lecture

Transfer acceptability: CSU; UC

Covers the American military experience from Colonial times to present.

HIST 121 History of California (3)

3 hours lecture

Transfer acceptability: CSU; UC

The history of California from the origins of the native peoples to the pres-