TOTAL LINITS		
Principles of Physics	4	
Coastal Oceanography	3	
Oceanography Laboratory	- 1	
Oceanography	3	
Calculus/Differential Equations	4	
Calculus/Analytic Geometry, Third Course	4	
General Biology	4	
Principles of Astronomy	3	
Directed Study in Geology	1,2,3	
Geology Topics	1,2,3	
	Directed Study in Geology Principles of Astronomy General Biology Calculus/Analytic Geometry, Third Course Calculus/Differential Equations Oceanography Oceanography Laboratory Coastal Oceanography Principles of Physics	

TOTAL UNITS

35 - 38

COURSE OFFERINGS

GEOL 100 Basic Geology (3)

3 hours lecture

Note: Together with GEOL 150, a prerequisite to upper division courses in Geology

Transfer acceptability: CSU; UC; CAN GEOL 6

Principles of physical geology. Plate tectonics, rocks and minerals, weathering, mass-wasting, surface and ground water, wind, waves and currents, glaciation, mountain building, volcanoes and other igneous activity, deformation and resulting structures, earthquakes, Earth's interior, geologic time, and earth resources.

GEOL 100L Basic Geology Laboratory (I)

3 hours laboratory

Prerequisite: Completion of, or concurrent enrollment in, GEOL 100

Note: May be offered as a field laboratory; satisfies lab requirement in Physical Science

Transfer acceptability: CSU; UC

Laboratory and field identification of rocks and rock forming minerals. Study of geologic processes by means of geologic and topographic maps.

GEOL 110 General Geology: National Parks and Monuments (3)

3 hours lecture

Transfer acceptability: CSU

Geologic history and processes of formation of our natural landscape. Principles of physical and historical geology as revealed in the structure, stratigraphy, and rock types of the parks and monuments.

GEOL 120 Planets, Moons, and Comets (3)

3 hours lecture

Note: Cross listed as ASTR 120

 $\begin{tabular}{ll} \textit{Transfer acceptability:} & CSU; UC-ASTR/GEOL 120 and ASTR 205 combined: \\ maximum credit, one course \end{tabular}$

The astronomy and geology of the solar system, observations, dynamics, relativistic ideas, including theories of formation and evolution. Comparative survey of the atmospheres, surface features, and interiors of planets and satellites. Minor objects, such as comets and asteroids, will be included.

GEOL 125 California Geology and Geography (3)

3 hours lecture

Note: Cross listed as GEOG 125 **Transfer acceptability:** CSU; UC

Emphasizes the physical geographic and geologic factors that have combined to form the varied landscapes of California. Climate and vegetation patterns, as well as the various geomorphic processes will be studied.

GEOL 150 Dinosaurs and Earth History (3)

3 hours lecture

Prerequisite: GEOL 100, 110 or 125 Transfer acceptability: CSU; UC

Principles of historical geology. The origin and evolution of Earth and its biosphere, incorporating plate tectonics, stratigraphy, paleontology, and geologic dating. Together with GEOL 100, a prerequisite to upper division courses in geology.

GEOL 150L Dinosaurs and Earth History Laboratory (I)

3 hours laboratory

Prerequisite: Completion of, or concurrent enrollment in, GEOL 150

Transfer acceptability: CSU; UC

Laboratory and field identification of rocks and fossils. Elements of stratigraphic methods and of vertebrate and invertebrate paleontology. Study of geologic and topographic maps in relation to earth history.

GEOL 195 Regional Field Studies in Geology (1,2,3)

2, 4, or 6 hours lecture/laboratory

Prerequisite: GEOL 100 or GEOL 110 or GEOL 125 or GEOG 100

Note: May be taken 4 times with different content for a maximum of 6 units

Transfer acceptability: CSU; UC – Credit determined by UC upon review of course syllabus.

Extended field studies of the geology of western North America over weekends and during vacation and summer sessions. Emphasis upon field observation and interpretation of rock types, landforms, and structure. Localities visited may vary from year to year.

GEOL 197 Geology Topics

(1-3)

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 3 times for a maximum of 6 units

Transfer acceptability: CSU

Topics in Geology. See Class Schedule for specific topic offered. Course title will designate subject covered

GEOL 295 Directed Study in Geology (1,2,3)

Arrange 3, 6, or 9 hours laboratory with department chairperson

Prerequisite: GEOL 150

Note: May be taken 4 times for a maximum of 6 units

Transfer acceptability: CSU – UC Credit determined by UC upon review of course syllabus.

Individual study in field, library, or laboratory for interested students.

German (GERM)

Contact the Foreign Languages Department for further information, (760) 744-1150, ext. 2390

COURSE OFFERINGS

For students who have completed foreign language course work at the high school level, and need clarification regarding placement in college level course work, contact the Counseling Center. Universities have varying policies regarding the granting of transfer credit when there is a combination of high school and college level course work.

GERM 101 German I (5)

5 hours lecture-1 hour laboratory

Transfer acceptability: CSU; UC; CAN GERM 2; GERM 101+102 = CAN GERM SEO A

This course is the first semester of German. 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. Course combines in-class instruction and practice with self-paced study in the Foreign Language Laboratory. This beginning-level course is for students with no previous coursework in German.

GERM 101A German IA

3 hours lecture

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

Transfer acceptability: CSU; UC

German 101A is equivalent to the first half of German 101. 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. This beginning-level course is for students with no previous coursework in German.

GERM 101B German IB

(3)

(3)

3 hours lecture

Prerequisite: GERM 101A or one year of high school German

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

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

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 struc-

GERM 102B German IIB

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

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.

5 hours lecture

Prerequisite: GERM 102 or three years of high school German

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

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.

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 (3) **Graphic Communications**

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

(3)

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 coun-

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 Red	Units	
ARTD 150 GCIP/	Digital Concepts/Techniques in Art	3
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.