

**PHOT 197B Photography Topics: Technical Studies** (.5 - 4)  
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

Topics in Photography, Technical Studies. See Class Schedule for specific topic offered. Course title will designate subject covered.

**PHOT 197C Photography Topics: General** (.5 - 4)  
Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture and/or laboratory may be scheduled by the department. Refer to Class Schedule.

**Note:** May be taken 3 times

**Transfer acceptability:** CSU

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

**PHOT 201 Elementary Color Negative Printing** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 105

**Transfer acceptability:** CSU

An introduction to the techniques and aesthetics of color negative printing. History, materials, processes, and vision will be explored.

**PHOT 202 Intermediate Color Printing** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 201

**Transfer acceptability:** CSU

A continuation of PHOT 201 with an emphasis on refined color printing skills. Color theory, image content, and printing excellence as well as contemporary issues will be stressed.

**PHOT 209 Photographic Portfolio** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 105 or PHOT 155

**Note:** May be taken 3 times

**Transfer acceptability:** CSU

Methods of portfolio design and production, goal setting, market research, resumes, artist statements, cover and inquiry letters and self-promotion for a range of career, scholastic and artistic purposes. Students will be required to employ their developing visual literacy, analytical skills and subjective thought. Field trips and classroom visits by working professionals will be incorporated.

**PHOT 210 Advanced Black and White Photography** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 105

**Transfer acceptability:** CSU; UC

An exploration of the creative and technical possibilities of the View Camera through various assignments aimed at developing a personal style and approach to the production of quality black and white photography. A study of the relationship between film exposure and development and its application in the "zone system" is stressed.

**PHOT 212 Landscape Photography** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 100 or PHOT 150

**Note:** May be taken 4 times

**Transfer acceptability:** CSU

A survey and comparison of past and present landscape photography. An analysis of different philosophies and approaches as it applies to different locations. Usually will require one trip of several days outside of the local area.

**PHOT 215 Creative Photography** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 100

**Transfer acceptability:** CSU; UC

Exploration of photography as an art form using both conventional and non conventional silver and non silver processes to permit broad variations and approaches to photographic expression.

**PHOT 216 Alternative Photographic Processes** (3)  
1½ hours lecture - 4½ hours laboratory

**Prerequisite:** A minimum grade of 'C' in PHOT 105, or concurrent enrollment in PHOT 105

**Transfer acceptability:** CSU

A practical, hands-on survey of historical alternatives and contemporary variations to the modern standard photographic process. Silver, Ferric, Dichromate, and Photomechanical possibilities for self expression will be explored. Typical processes learned will include Van Dyke, Cyanotype, Platinum and Palladium Kallitype, Bromoil, and gum printing.

**PHOT 220 Commercial Photography** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 105

**Transfer acceptability:** CSU

Considerations of professional technical fundamentals in lighting, film, camera systems, and management as applied in studio and location photography for commercial, advertising, and promotional purposes.

**PHOT 225 Photographic Portraiture** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 105

**Transfer acceptability:** CSU

Techniques and styles of photographic portraiture. Studio and non studio applications will be explored using black and white and color films. Emphasis on lighting equipment and techniques.

**PHOT 230 Digital Darkroom I** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in GCIP 140 and PHOT 100, or PHOT 150

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

The technology of digital photography, the computer, and inkjet printers. Emphasis on industry standard image editing software as the primary photographic processing and manipulation tools. Continuing instruction in digital image processing directed toward photographic output. Development of capabilities and use of the digital darkroom.

**PHOT 235 Digital Darkroom II** (3)  
1½ hours lecture - 4½ hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 230

**Note:** May be taken 2 times

**Transfer acceptability:** CSU

This course is a continuing investigation into the technology, theory and aesthetics of digital photography with instruction on advanced digital image processing from a photographic perspective. Emphasis will be on; creating outstanding imagery, perfecting output through the advance use of image editing software, advancing visual literacy.

**PHOT 296 Special Projects** (1, 2, 3)  
3, 6, or 9 hours laboratory  
**Prerequisite:** A minimum grade of 'C' in PHOT 105

**Note:** May be taken 3 times

**Transfer acceptability:** CSU

Requires demonstrated proficiency in photography and the creative ability and initiative to work independently on a particular sustained project which does not fit in the context of regularly scheduled classes. Could include portfolio preparation.

## Physical Education (PE)

See Kinesiology

## Physical Science (PHSC)

Contact the Physics and Engineering Department for further information.  
(760) 744-1150, ext. 2505  
Office: NS-355B

## COURSE OFFERINGS

**PHSC 100 Introduction to Physical Science (3)**  
3 hours lecture**Transfer acceptability:** CSU; UC – No credit for students with prior lecture credit in ASTR, CHEM, GEOL or PHYS

The study of selected topics from the fields of astronomy, geology, physics, chemistry, and their related sciences through lectures, films, and demonstrations. A general education course designed particularly for non science majors. For teacher training see PHSC 101.

**PHSC 100L Introduction to Physical Science Laboratory (1)**  
3 hours laboratory**Prerequisite:** A minimum grade of 'C' in PHSC 100, or concurrent enrollment in PHSC 100**Transfer acceptability:** CSU; UC – No credit for students with prior lab credit in ASTR, CHEM, GEOL or PHYS

The study of selected topics from the fields of astronomy, geology, physics, chemistry, and their related sciences through lab exercises. A general education course designed particularly for non-science majors. For teacher training see PHSC 101L.

**PHSC 101 Principles of Physical Science (3)**  
3 hours lecture**Transfer acceptability:** CSU

The study of selected topics from the fields of physics and chemistry and their related sciences through lectures, films, and demonstrations. A general education course designed particularly for non science majors. Especially recommended for teacher training.

**PHSC 101L Principles of Physical Science Laboratory (1)**  
3 hours laboratory**Prerequisite:** A minimum grade of 'C' in PHSC 101, or concurrent enrollment in PHSC 101**Transfer acceptability:** CSU

The study of selected topics from the fields of physics and chemistry and their related sciences through lab exercises. A general education course designed particularly for non-science majors; not open to majors in physics, chemistry, or engineering. Especially recommended for teacher training.

**Physics (PHYS)**Contact the Physics and Engineering Department for further information.  
(760) 744-1150, ext. 2505  
Office: NS-355B

## COURSE OFFERINGS

\*UC credit limitations --

- No credit for PHYS 101 or 102 if taken after 120, 200, or 230
- PHYS 120, 121 or 200, 201 or 230, 231, 232 combined: maximum credit, one series
- PHYS 200 and 230 combined: maximum credit, one course
- PHYS 201 and 231 combined: maximum credit, one course

**PHYS 101 Introduction to Physics (4)**  
3 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in MATH 50 or one year of high school Algebra**Note:** Not open to students with prior credit in PHYS 100, 110, 115, 120, 125, 230, 231, and 232**Transfer acceptability:** CSU; UC\*

An introductory survey course in classical and modern physics. Not intended for science majors.

**PHYS 102 Introduction to Physics (Lecture) (3)**  
3 hours lecture**Prerequisite:** A minimum grade of 'C' in MATH 50 or one year of high school Algebra**Note:** Not open to students with prior credit in PHYS 101, 110, 115, 120, 125, 230, 231, and 232**Transfer acceptability:** CSU; UC\*

An introductory survey course in classical and modern physics. Not intended for science majors.

**PHYS 120 General Physics (4)**  
3 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in MATH 110**Recommended preparation:** MATH 115**Transfer acceptability:** CSU; UC\*

The fundamental principles of classical mechanics, wave motion, sound, thermodynamics, and fluids.

**PHYS 121 General Physics (4)**  
3 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in PHYS 120**Transfer acceptability:** CSU; UC\*

A second semester continuation of PHYS 120. The fundamental principles of optics, electricity, magnetism, and modern physics.

**PHYS 197 Physics Topics (.5-5)**

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

**Note:** May be taken 3 times**Transfer acceptability:** CSU; UC - Credit determined by UC upon review of course syllabus

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

**PHYS 200 Fundamentals of Physics (5)**  
4 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in MATH 140, or concurrent enrollment in MATH 140**Note:** PHYS 200-201 series not recommended for majors in engineering, computer science or physics; PHYS 230 series recommended for majors in engineering, computer science, or physics.**Transfer acceptability:** CSU; UC\*

A calculus-based course in classical mechanics, waves, sound, fluids and thermodynamics, with an emphasis on life science, pre-professional, and architectural fields.

**PHYS 201 Fundamentals of Physics (5)**  
4 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in PHYS 200**Recommended preparation:** MATH 141, or concurrent enrollment in MATH 141**Note:** PHYS 200-201 series not recommended for majors in engineering, computer science or physics; PHYS 230 series recommended for majors in engineering, computer science, or physics.**Transfer acceptability:** CSU; UC\*

A calculus-based course in classical electromagnetism, optics and atomic physics, with an emphasis on life science, pre-professional, and architectural fields.

**PHYS 230 Principles of Physics (5)**  
4 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in MATH 141, or concurrent enrollment in MATH 141**Recommended preparation:** PHYS 120**Transfer acceptability:** CSU; UC\*

Classical mechanics, thermodynamics and fluid dynamics. Required for students whose major field is physics, chemistry, or engineering.

**PHYS 231 Principles of Physics (5)**  
4 hours lecture - 3 hours laboratory**Prerequisite:** A minimum grade of 'C' in PHYS 230; A minimum grade of 'C' in MATH 205, or concurrent enrollment in MATH 205**Recommended preparation:** PHYS 121**Transfer acceptability:** CSU; UC\*

Classical electromagnetism, electromagnetic waves, and optics. Required for students whose major field is physics, chemistry, or engineering.