

Exploration of the techniques used in astronomy to determine the physical properties of stars and galaxies. The physical nature of light and the optical principles of a telescope are also explored. Measurements of planetary and stellar phenomena are used to investigate the astronomical methods of determining the size, composition and age of the universe.

ASTR 120 Planets, Moons, and Comets (3)
3 hours lecture

Note: Cross listed as GEOL 120
Transfer acceptability: CSU; UC

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.

ASTR 197 The Universe: Contemporary Topics in the Space Sciences (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 4 times

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

Selected topics in astronomy and space sciences, emphasizing current research and discoveries. Refer to the Class Schedule for specific topics covered.

ASTR 210 Life in the Universe (3)
3 hours lecture

Prerequisite: ASTR 100 or 120

Transfer acceptability: CSU

A scientific exploration of life in the universe using the findings of astronomy, biology, and chemistry. Topics include the development of life and its environments on Earth, the search for life in the cosmos, interstellar communications and travel, and the effects of contact.

ASTR 295 Directed Study in Astronomy (1,2,3)

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

Prerequisite: ASTR 100 or 120

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.

Athletics and Competitive Sports (ACS)

Contact the Athletics Program for further information.

(760) 744-1150, ext. 2460

Office: O-10

Palomar College offers intercollegiate sports for men and women. They include softball, basketball, golf, tennis, soccer, volleyball, swimming and diving, water polo, football, wrestling, cross country, and baseball. Teams will compete in one of four conferences: Mission Conference, Orange Empire Conference, South Coast Conference, and Pacific Coast Conference. Member colleges are located in the Los Angeles, Orange County, Riverside, and San Diego areas. In order to participate in intercollegiate athletics a student must fulfill the following requirements:

1. Obtain a physical clearance by the team physician.
2. Enroll in 12 units. Students are encouraged to register for a minimum of 9 units in courses other than Physical Education activity classes or Athletics and Competitive Sports classes.
3. Successfully complete 24 units prior to a second season of participation. A minimum of 18 units must be completed in courses other than Physical Education activity classes or Athletics and Competitive Sports classes.
4. Maintain a 2.0 or higher grade point average in all course work.
5. Participate in the Palomar College matriculation program which includes English, math and reading skills assessment.

6. Participate in the Palomar College Athletic Academic Advisement Program which includes:

- a. Establishment of an Individual Education Plan prior to second semester of enrollment.
- b. Academic assessment of course progress following the 4th, 8th, and 12th week of each semester.
- c. Fulfilling tutorial or study hall requirements as assigned by the instructor advisor.

INTERCOLLEGIATE ATHLETIC COURSE OFFERINGS

Courses numbered under 100 are not intended for transfer credit.

ACS 50 Introduction to Collegiate Athletics (1)
1 hour lecture

Program for matriculation, study skills, eligibility rules, substance abuse, responsibilities of being a student athlete, training, and nutrition.

ACS 101 Intercollegiate Softball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides women with the opportunity to develop advanced skills and the strategies in intercollegiate softball which will be applied to competitive situations.

ACS 110 Intercollegiate Basketball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate basketball which will be applied to competitive situations.

ACS 115 Intercollegiate Golf (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men with the opportunity to develop advanced skills and the strategies in intercollegiate golf which will be applied to competitive situations.

ACS 120 Intercollegiate Tennis (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate tennis which will be applied to competitive situations.

ACS 125 Intercollegiate Soccer (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate soccer which will be applied to competitive situations.

ACS 130 Intercollegiate Volleyball (2)
A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate volleyball which will be applied to competitive situations.

ACS 135 Intercollegiate Swimming and Diving (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate swim/diving which will be applied to competitive situations.

ACS 140 Intercollegiate Water Polo (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate water polo which will be applied to competitive situations.

ACS 145 Intercollegiate Football (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate football which will be applied to competitive situations.

ACS 150 Intercollegiate Wrestling (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate wrestling which will be applied to competitive situations.

ACS 155 Intercollegiate Baseball (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate baseball which will be applied to competitive situations.

ACS 160 Intercollegiate Cross Country (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC - max credit combined with PE activity courses, 4 units

This course provides men and women with the opportunity to develop advanced skills and the strategies in intercollegiate cross country which will be applied to competitive situations.

ACS 165 Intercollegiate Track and Field (2)

A minimum of 175 hours (lecture/laboratory) of student participation is required.

Note: May be taken 3 times

Transfer acceptability: CSU; UC (pending)

This course provides students with the opportunity to develop advanced skills and the strategies in intercollegiate track and field which will be applied to competitive situations.

ACS 197 Topics in Athletics and Competitive Sports (.5-4)

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; UC (pending)

Topics in Athletics and Competitive Sports. See Class Schedule for specific topic offered. Course title will designate subject covered.

Automotive Technology (AT)

Contact the Trade and Industry Department for further information.

(760) 744-1150, ext. 2545

Office: T-1

Associate in Arts Degrees -

AA Degree requirements are listed in Section 6 (green pages).

- Auto Body Work
- Auto Chassis and Drive Lines
- Electronic Tune Up and Computer Control Systems
- Mechanics - General

Certificates of Achievement -

Certificate of Achievement requirements are listed in Section 6 (green pages).

- Auto Body Work
- Auto Chassis and Drive Lines
- Electronic Tune Up and Computer Control Systems
- Mechanics - General

PROGRAMS OF STUDY**Auto Body Work**

In order to earn a certificate, students must achieve a minimum grade of 'C' in each of the certificate program courses.

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

Program Requirements		Units
R AT 50	Auto Body Repair I	4
R AT 51	Auto Body Repair II	4
R AT 55	Auto Refinishing I	4
R AT 56	Auto Refinishing II	4
Elective Courses (Select 6 Units)		
AT 100	Auto Maintenance and Minor Repair	3
AT 105	Automotive Electricity	2
CE 100	Cooperative Education	1,2,3,4
IT 100	Technical Mathematics	3
WELD 100	Welding I	2
TOTAL UNITS		22

Auto Body Work A.A. Degree or Certificate of Achievement is also listed under R.O.P. Automotive Technology.

Auto Chassis and Drive Lines

This program will prepare students for entry level positions in all aspects of the Automotive Industry with an emphasis in drive-line repair.

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

Program Requirements		Units
IT 100	Technical Mathematics	3
R AT 50 or WELD 100	Auto Body Repair I Welding I	4 3
AT 105	Automotive Electricity	2
AT 120	Automatic Transmissions and Drive Lines	3
AT 130	Automotive Brakes	3
AT 135	Front End Alignment and Wheel Service	3
AT 160	Associated Studies in Automotives	3
AT 220	Advanced Automotive Transmissions	3
TOTAL UNITS		23 - 24