Definition
Astronomy is perhaps the oldest science that investigates the fundamental physical and chemical laws that govern our solar system, universe and all of nature.

Staff
To access faculty and staff, dial (661) 722-6300, then the 4-digit extension.
Dean:
  Christos Valiotis  ext. 6415
Administrative Assistant:
  Wendy Cios  ext. 6415
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  Suzanne Olson  ext. 6415
Department Chair:
  Dr. Alexandra Schroer  ext. 6922
Lab Technician:
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  Christos Valiotis, Director  ext. 6024
  Jamie Jones, Coordinator  ext. 6992
  Denilson Freitas Lab Technician  ext. 6704
Faculty:
  Dr. Mark McGovern  ext. 6006

Program Description
The astronomy courses are designed to meet the general education and major transfer requirements for the physical sciences.

Distinctive Features
Traditional teaching may be supplemented with computer and Internet-based instruction. Laboratory activities provide “hands-on” experimentation and discovery into the natural, physical and chemical characteristics of the earth and our universe. Computer-based data acquisition and analysis may assist in some lab instruction.

Career Options
Astrobiology
Astronomer
Astrophysicist
(These careers require education beyond the two-year college level.)

Certificate Program
Certificate not applicable.

Associate Degree
An associate degree with a major in Astronomy is not available. Astronomy courses can be included in the 18 units necessary for an associate degree with a major in Liberal Arts and Sciences.

(See Graduation/Associate Degree Requirements.)

Transfer
Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center and consult with a counselor as soon as possible. Additional information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: www.assist.org

Prerequisite Completion
If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of “A,” “B,” “C” or “P”. Classes in which the Pass/No Pass option is available are indicated with an asterisk (*) before the course title. See “Pass/No Pass Option” in the catalog for full explanation.

Astronomy Courses

ASTR 101  *ASTRONOMY
3 units
3 hours weekly
Prerequisite: Completion of MATH 102.
Advisory: Eligibility for College Level Reading and ENGL 101. This course is designed as an introduction into the study of planetary, stellar, galactic and cosmological systems. Emphasis is placed on astronomical observations and the use of physical laws and principles to investigate the properties and dynamics of these systems. Topics include understanding celestial motion as a function of the motion of the Earth and the Moon, the development of modern astronomy, telescopes and imaging technology, the properties of light and atoms, the formation of spectra, stellar structure and evolution, galactic structure and evolution, cosmology, comparative planetology, and search for extraterrestrial life. (CSU, UC, AVC)

ASTR 101L  *ASTRONOMY LABORATORY
1 unit
3 hours weekly
Prerequisite: Completion of MATH 102, and Completion of or concurrent enrollment in ASTR 101.
Advisory: Eligibility for College Level Reading and ENGL 101. Laboratory applications of principles discussed in ASTR 101. Classroom activities and topics include the use of star charts, cause of the seasons, telescope observations of the Moon, planets, and stars; the laws of optics as related to telescopes, how light is analyzed to deduce the physical properties of stars and galaxies, Kepler’s laws of planetary motion, constructing Hertzsprung-Russell diagrams to organize stellar data, cosmic distances, and the Hubble Law as it relates to the age and size of the Universe. (CSU, UC, AVC)
Definition
Athletic training includes the study of prevention and management of athletic injuries. Athletic trainers work directly with athletes and coaches to design and implement training and rehabilitation.

Staff
To access faculty and staff, dial (661) 722-6300, then the 4-digit extension.
Dean:
Greg Bormann ext. 6402
Administrative Assistant:
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Department Chair:
Dr. Glenn Haller ext. 6445
Faculty:
Kevin Simpson ext. 2566

Program Description
The athletic training program provides course work that emphasizes prevention, management and treatment of sports injuries. Rehabilitation and fitness are also addressed in the program. The program prepares students for transfer to a four-year college program to prepare for employment as an athletic trainer.

Distinctive Features
Students in the athletic training program participate in practical applications of classroom learning. Students should expect to perform procedures that involve physical activity such as bending, lifting, twisting, squatting, pulling, pushing and walking. Manual dexterity of the hands and fingers is necessary for activities such as taping and bandaging. Emotional stability and ability to cope with stress during a crisis situation are important when performing infrequent procedures related to cardiopulmonary resuscitation (CPR).

Career Options
Fitness Instructor (personal or clinical)
Athletic Trainer
(These careers require education beyond the two-year college level.)

Certificate Program
Certificate not applicable.

Associate Degree
Associate degree not available.

Transfer
Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center and consult with a counselor as soon as possible. Additional information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: www.assist.org

Prerequisite Completion
If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of “A,” “B,” “C” or “P”. Classes in which the Pass/No Pass option is available are indicated with an asterisk (*) before the course title. See “Pass/No Pass Option” in the catalog for full explanation.

Athletic Training Courses

ATH 100 *INTRODUCTION TO ATHLETIC TRAINING
3 units
3 hours weekly
Advisory: Eligibility for ENGL 100A, READ 099.
The course introduces the role of the athletic trainer and concepts of sports medicine. Students will learn prevention, evaluation and treatment for athletic injuries. The course will provide an introduction to both the orthopedic assessment and management process as well as basics of biomechanics and ethical issues in the Athletic Training profession. (CSU, AVC)

ATH 102 *PRACTICAL APPLICATIONS OF ATHLETIC TRAINING I
3 units
3 hours weekly
Prerequisite: Completion of ATH 100.
Corequisite: Concurrent enrollment in ATH 102L.
Advisory: Eligibility for ENGL 100A, READ 099.
The course includes practice as an athletic training student under the supervision of a certified athletic trainer. Students learn to assess, evaluate, treat and rehabilitate common injuries in realistic settings. Safety, legal and ethical issues are addressed. The lecture portion of this class will discuss the basics of orthopedic assessment of common injuries. (CSU, AVC)
ATH 102L *PRACTICAL APPLICATIONS OF ATHLETIC TRAINING I LAB
4 units
12 hours weekly
Prerequisite: Completion of ATH 100, and Completion of or concurrent enrollment in ATH 102.
Advisory: Eligibility for ENGL 100A, READ 099.
The course includes practice as an athletic trainer trainee under the supervision of a certified athletic trainer. Students learn to assess, evaluate, treat and rehabilitate common sports injuries in realistic settings for fall sports. Safety, legal and ethical issues are addressed. The course provides hours for a Certified Athletic Trainer to fulfill requirements toward certification by a nationally recognized association. (CSU, AVC) (R3)

ATH 103 *PRACTICAL APPLICATIONS OF ATHLETIC TRAINING II
3 units
3 hours weekly
Prerequisite: Completion of ATH 100.
Corequisite: Concurrent enrollment in ATH 103L.
Advisory: Eligibility for ENGL 100A, READ 099.
The course includes the theoretical basis for practice as an athletic training student under the supervision of a certified athletic trainer. Students learn to assess, treat, and rehabilitate common injuries in realistic settings. Therapeutic interventions will be specifically addressed. Safety, legal and ethical issues are addressed. (CSU, AVC)

ATH 103L *PRACTICAL APPLICATIONS OF ATHLETIC TRAINING II LAB
4 units
12 hours weekly
Prerequisite: Completion of ATH 100, and Completion of or concurrent enrollment in ATH 103.
Advisory: Eligibility for ENGL 100A, READ 099.
The course includes practice as an athletic trainer trainee under the supervision of a certified athletic trainer. Students learn to assess, evaluate, treat and rehabilitate common sports injuries in realistic settings for spring sports. Safety, legal and ethical issues are addressed. (CSU, AVC) (R3)