

WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS One College Drive Blythe, California 92225 (760) 921-5500 www.paloverde.edu

Addendum to the 2024-2025 Catalog

This addendum is an integral part of the College's Catalog. The contents of this catalog addendum are provided as an update and/or in addition to the content specified in the 2024-2025 catalog. Effective Spring 2025.

Palo Verde College has made every reasonable effort to determine that everything stated in the academic catalog is accurate. Sometimes changes to the academic catalog are necessary after the date of publication. Courses and programs offered, together with other matters contained herein, are subject to change at the discretion of the college.

#### **Courses:**

#### **AST 101 Introductory Astronomy**

Course Length: 3 hours lecture (54 total) 3 Units

CSU GE: B1; IGETC: 5A

Advisory: ENG 100 College Composition and MAT 106 Statistics OR MAT 108 Liberal Arts Mathematics OR MAT 110 College Algebra

This course is an introduction to general astronomy. Topics include the history of astronomy and the development of modern astrophysics, the structure and origin of the solar system and the Milky Way galaxy, modern techniques and instruments, the characteristics of the nebulae and galaxies, stellar characteristics and theories, the search for extraterrestrial life, and the implications of astronomical discoveries. Special emphasis is placed on recent research in astronomy and the latest discoveries and tools used in modern astronomy.

#### AST 105 Astronomy: The Solar System

*Course Length: 3 hours lecture (54 total), 3 hours lab (54 total)* 4 Units

CSU GE: B1 & B3; IGETC: 5A & 5C

*Prerequisite: ENG 100 College Composition and MAT 106 Statistics OR MAT 108 Liberal Arts Mathematics OR MAT 110 College Algebra* 

As a survey of the Solar System, Astronomy 105 covers essential concepts and principles necessary for the study of the heavens, including Kepler's and Newton's Laws, radiation, spectroscopy and telescope technology. The course also includes the study of the planets, moons, asteroids, comets, and the Sun. The lab section includes individual and/or collaborative group activities designed to guide students through concepts, promotes quantitative literacy, and increases student confidence in their understanding of how the universe works.



### WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS AST 110 Astronomy: Beyond the Solar System

*Course Length: 3 hours lecture (54 total), 3 hours lab (54 total)* 4 Units

CSU GE: B1 & B3; IGETC: 5A & 5C

Prerequisite: ENG 100 College Composition and MAT 106 Statistics OR MAT 108 Liberal Arts Mathematics OR MAT 110 College Algebra

Although the course is a continuation AST 105, it contains a review so that it can be taken independently. This course looks beyond the Solar System and examines the formation and evolution of low-mass and high-mass stars, relativity, black holes, the Milky Way, galaxies, quasars, the expanding universe, cosmology, large-scale structure in the universe, and the possibility of intelligent life. The lab section includes individual and/or collaborative group activities designed to guide students through concepts, promotes quantitative literacy, and increases student confidence in their understanding of how the universe works.

#### **BIO 190 Biology Sequence I for Majors**

Course Length: 3 hours lecture (54 total), 6 hours lab (108 total) 5 Units

CSU GE: B2 & B3; IGETC: 5B & 5C

Advisory: Eligible for college-level English AND Math, or appropriate placement based on AB705 mandates.

This course sequence part I of II, intended for science majors, covers principles and applications of prokaryotic and eukaryotic cell structure and function, cell morphologies, biological molecules, molecular genetics, including cell division and reproduction and its control, homeostasis, classical/Mendelian genetics, cell metabolism including photosynthesis and respiration and cellular communication. The philosophy of science, laboratory methods of scientific inquiry and experimental design are foundational. (C-ID BIOL 135S)

#### **BIO 191 Biology Sequence II for Majors**

Course Length: 3 hours lecture (54 total), 6 hours lab (108 total) 5 Units

CSU GE: B2 & B3; IGETC: 5B & 5C

*Advisory: Eligible for college-level English AND Math, or appropriate placement based on AB705 mandates.* 

This course sequence part II of II, intended for science majors, includes a survey of the biology and diversity of organisms, and examines the basic principles governing evolution of organisms and interactions between organisms and the environment, including microbes, protozoa, fungi, plants, and animals. This course also emphasizes classification, structure and function of organisms, ecological principles, and mechanisms of evolution. The philosophy of science, laboratory methods of scientific inquiry and experimental design are foundational. (C-ID BIOL 135S)



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**PHY 100 Physics Concepts** 

Course Length: 3 hours lecture (54 total)

3 Units

CSU GE: B1; IGETC: 5A

*Prerequisite: ENG 100 College Composition and MAT 106 Statistics OR MAT 108 Liberal Arts Mathematics OR MAT 110 College Algebra* 

PHY 100 is an algebra-based physics course. It is intended for students who want to explore the fundamental concepts of physics as applied to everyday phenomena from a limited mathematical perspective emphasizing verbal logic, critical analysis, rational thought, and problem solving skills. Topics include mechanics, thermodynamics, electricity and magnetism, wave phenomena, and modern physics.

#### CHE 109 Chemistry for Health Sciences and Nursing Disciplines

*Course Length: 3 hours lecture (54 total), 6 hours lab (108 total)* 5 Units

#### CSU GE: B1 & B3; IGETC: 5A & 5C

Advisory: MAT 108 Liberal Arts Mathematics or higher and ENG 100 College Composition This is a one semester chemistry course covering basic components in inorganic chemistry, organic chemistry and biochemistry to establish the fundamental chemistry background in students who intend to participate in health science programs. In addition to the fundamentals in basic chemistry, the course is intended to provide a comprehensive basic knowledge in organic chemistry, biochemistry of the human body, health and nutrition.

#### **ECO 105 Principles of Macroeconomics**

*Course Length: 3 hours lecture (54 total)* 3 Units CSU GE: D: IGETC: 4

Prerequisite: Successful completion of Intermediate Algebra or placement based on multiple measures.

Introduction to the concepts and tools of macroeconomic analysis, especially as they apply to the United States economy. The major topics studied are resources, government expenditures and taxation, money and banking, national income determination, and business cycles. (C-ID: ECON 202)

#### **ECO 106 Principles of Microeconomics**

Course Length: 3 hours lecture (54 total) 3 Units CSU GE: D; IGETC: 4 Prerequisite: Successful completion of Intermediate Algebra or placement based on multiple measures. Microeconomics is a study of principles and applications regarding specific economic sectors

Microeconomics is a study of principles and applications regarding specific economic sectors (micro analysis). Various competitive models in a market economy are studied in detail. Economics of labor unions, farming, international trade and finance provide a background for study and analysis of many current world and domestic problems. (C-ID: ECON 201)



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**SOC 160 Introduction to Crime** 

Course Length: 3 hours lecture (54 total)

3 Units

CSU GE: D9; IGETC: Area 4

Advisory: ENG 100 College Composition

This course is an introduction to the sociological analysis of crime, criminal behavior, and the criminal justice system. The course explores the history and social construction of crime and criminality and examines the definition of crime and its violations as well as the laws and methods used to control criminal behavior. Students will discuss the measurement of crime and basic theoretical explanations of criminal behavior. (C-ID SOCI 160)

#### **GEL 101 Physical Geology**

Course Length: 4 hours lecture (72 total) 4 Units

CSU GE: B1; IGETC: 5A

Advisory: ENG 100 College Composition or student meets with an English tutor for extra help on reading comprehension and writing AND MAT 095 Pre College Algebra or students meets with Math tutor for extra help AND GEL 102 Physical Geology Laboratory, or if a student needs a lab course, GEL 102 is recommended concurrently with GEL 101.

This course focuses on the internal structure and origin of the Earth and the processes that change and shape it. Topics include plate tectonics, rocks and minerals, volcanoes, earthquakes, faults and folds, erosion, surface water, groundwater, desert landforms, and glaciers. The course may include extra credit field trips to areas of interest or alternative assignments as noted in syllabus. (C-ID GEOL 101)

#### **GEL 105 Natural Hazards and Disasters**

*Course Length: 4 hours lecture (72 total)* 4 Units

CSU GE: B1; IGETC: 5A

Advisory: ENG 100 College Composition or student meets with an English tutor for extra help on reading comprehension and writing AND MAT 095 Pre College Algebra or students meets with Math tutor for extra help AND GEL 106 Natural Hazards and Disasters Laboratory, or if a student needs a lab course, GEL 106 is recommended concurrently with GEL 105. This course examines the physical forces responsible for Earth's destructive natural processes and the impacts on humans and the environment. Course emphasizes the Earth system and connections between the geosphere, hydrosphere, atmosphere, and biosphere. The course may include extra credit field trips to areas of interest or alternative assignments as noted in syllabus.

#### **MAT 130 Finite Mathematics**

Course Length: 3 hours lecture (54 total) 3 Units CSU GE: B4; IGETC: 2A Prerequisite: Intermediate Algebra or placement based on multiple measures





WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS Linear functions, systems of linear equations and inequalities, matrices, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability. Applications in business, economics and social science.