

# GENERAL STUDIES PATTERN I - NATURAL SCIENCES EMPHASIS, ASSOCIATE IN ARTS

The courses that fulfill the Natural Sciences area of emphasis will examine the physical universe, its life forms, and its natural phenomena. The courses are designed to develop students' appreciation and understanding of the scientific methods and encourage an understanding of the relationships between science and other human activities.

This Pattern provides an opportunity to earn an Associate in Arts in General Studies. This degree covers a broad area of study and is intended for students who may not be planning to transfer to a four-year university or who may need to explore possibilities before committing themselves to a major. Students are required to:

1. Complete Ventura College's General Education requirements to include areas A–F
2. Choose an area of emphasis from one of four categories listed below:
  - Natural Sciences Emphasis
  - Social and Behavioral Sciences Emphasis
  - Arts and Humanities Emphasis
  - Holistic Studies Emphasis
3. Complete a minimum of 18 units in the chosen area of emphasis with a grade of "C" or better or a "P" if the course is taken on a "Pass/No-Pass" (P/NP) basis (Title 5 § 55063). Even though a "P" is allowed, it is recommended that students complete all major coursework for a letter grade (A, B, or C). (Note: Universities have limitations on the number of units that can be taken "Pass/No-Pass" and therefore it is strongly recommended that students take all major coursework for a letter grade.) Complete a minimum of 6 of the 18 units within a single discipline. Courses in the area of emphasis may also be used to fulfill general education requirements but the units may count only once.
4. Complete a minimum of 60 degree-applicable units.
5. Complete the college's other graduation requirements in competency (mathematics and English), scholarship, and residency.
6. Apply for the A.A. degree in the Counseling Office by the stated deadlines.

*NOTE: Students planning to transfer to a four-year university are advised that this curriculum may not adequately prepare them for transfer. General Studies Patterns II and III are designed for transfer students.*

Course ID	Title	Units/ Hours
AG V04	Introduction to Soil Science	3
AG V06	Introduction to Plant Science (with Laboratory)	3
AG V21	Introduction to Integrated Pest Management (IPM)	3
AG V22	Introduction to Plant Pathology: Insects and Diseases of Plants	3
AG V30	Plant Propagation and Production	3
AG V42	Plant Identification and Culture: Spring Specimens	3

AG V43	Plant Identification and Culture: Fall Specimens	3
AG V61	Introduction to Animal Science	3
AG V66	Anatomy and Physiology of Animals	4
ANAT V01	Human Anatomy	4
ANPH V01	Introduction to Human Anatomy and Physiology	5
ANTH V01	Biological Anthropology	3
ANTH V01L	Biological Anthropology Laboratory	1
ANTH V35	Introduction to Forensic Science	3
ANTH V35L	Introduction to Forensic Science Laboratory	1
ANTH V36	Forensic Anthropology	3
AST V01	Elementary Astronomy	3
AST V01L	Elementary Astronomy Laboratory	1
BIOL V01	Principles of Biology	3
BIOL V01L	Principles of Biology Laboratory	1
BIOL V03	Evolution, Ecology, and Organismal Biology	5
BIOL V04	Cell and Molecular Biology	5
BIOL V10	Introduction to Environmental Issues	3
BIOL V12	Human Biology	3
BIOL V14	Field Biology: A Natural History of California	4
BIOL V18	Human Heredity	3
BIOL V29	Marine Biology	3
BIOL V29L	Marine Biology Laboratory	1
CHEM V01A	General Chemistry I	3
CHEM V01AL	General Chemistry I Laboratory	2
CHEM V01B	General Chemistry II	3
CHEM V01BL	General Chemistry II Laboratory	2
CHEM V12A	General Organic Chemistry I	3
CHEM V12AL	General Organic Chemistry I Laboratory	2
CHEM V12B	General Organic Chemistry II	3
CHEM V12BL	General Organic Chemistry II Laboratory	2
CHEM V20	Elementary Chemistry	4
CHEM V20L	Elementary Chemistry Laboratory	1
CHEM V21	Introduction to Organic and Biochemistry	3
CHEM V21L	Introduction to Organic and Biochemistry Laboratory	2
CHEM V30	Chemistry for Health Sciences	4
CHEM V30L	Chemistry for Health Sciences Laboratory	1
CJ V35	Introduction to Forensic Science	3
CJ V35L	Introduction to Forensic Science Laboratory	1
CJ V36	Forensic Anthropology	3
ESRM V01	Introduction to Environmental Issues	3
ESRM V02	Introduction to Environmental Science	3
ESRM V10	Environmental Ecology	3
ESRM V14	Conservation of Natural Resources	3
GEOG V01	Elements of Physical Geography	3
GEOG V01L	Elements of Physical Geography Laboratory	1
GEOG V05	Introduction to Weather and Climate	3

GEOG V22	Fundamentals of Mapping and Geographic Information Systems	3
GEOL V02	Physical Geology	3
GEOL V02L	Physical Geology Laboratory	1
GEOL V03	Historical Geology	3
GEOL V03L	Historical Geology Laboratory	1
GEOL V07	Geology of National Parks	3
GEOL V09	Earth Science with Laboratory	4
GEOL V11	Introduction to Oceanography	3
GEOL V21	Natural Disasters	3
GIS V22	Fundamentals of Mapping and Geographic Information Systems	3
MICR V01	General Microbiology	4
NS V07	Pharmacology	3
PHSC V01	Concepts in Physical Science	4
PHSO V01	Human Physiology	4
PHYS V01	Elementary Physics	5
PHYS V02A	General Physics I: Algebra/Trigonometry-Based	4
PHYS V02AL	General Physics I Laboratory: Algebra/Trigonometry-Based	1
PHYS V02B	General Physics II: Algebra/Trigonometry-Based	4
PHYS V02BL	General Physics II Laboratory: Algebra/Trigonometry-Based	1
PHYS V03A	General Physics I: Calculus-Based	4
PHYS V03AL	General Physics I Laboratory: Calculus-Based	1
PHYS V03B	General Physics II: Calculus-Based	4
PHYS V03BL	General Physics II Laboratory: Calculus-Based	1
PHYS V04	Mechanics for Scientists and Engineers	4
PHYS V04L	Mechanics Laboratory for Scientists and Engineers	1
PHYS V05	Electricity and Magnetism for Scientists and Engineers	4
PHYS V05L	Electricity and Magnetism Laboratory for Scientists and Engineers	1
PHYS V06	Optics, Heat, and Modern Physics: For Scientists and Engineers	4
PHYS V06L	Optics, Heat, and Modern Physics Laboratory for Scientists and Engineers	1
PSY V03	Introduction to Biological Psychology	3