NATURAL SCIENCE, ASSOCIATE IN SCIENCE DEGREE

Banner Code: 1_AS_NS
Control Number: 14412
Financial Aid Eligible

Complete eighteen (18) units from the following and the Associate in Science graduation requirements as outlined in the Graduation Requirements section of the catalog. If a student chooses this degree option, a plan must be developed with a counselor and placed on file prior to petitioning for graduation.

Review Graduation Requirements (https://catalog.cccd.edu/orange-coast/graduation-requirements/associate-degree/) and General Education (https://catalog.cccd.edu/orange-coast/general-education-patterns/).

Course	Title	Units
Required Courses		
Select a minimum of eighteen (18) units from the following:		
ASTRONOMY		
ASTR A100	Introduction to Astronomy	3
or ASTR A100H	Introduction to Astronomy Honors	
ASTR A100L	Introduction to Astronomy Laboratory	1
or ASTR A100M	Introduction to Astronomy Laboratory Honors	
ASTR A101	Planetary Astronomy	3
ASTR A102	Stellar Astronomy	3
ASTR A103	Cosmology	3
BIOLOGY		
BIOL A100	Principles of Biology	4
BIOL A101	The Biology of Cooking	4
BIOL A114	Basic Microbiology	2
BIOL A125	Human Biology	3
BIOL A172	Nature of Birds	1
BIOL A180	Introduction to Biology for Majors 1: Cell and Molecular Biology	4
BIOL A182	Zoology	3
BIOL A182L	Zoology Lab	1
BIOL A183	Botany	3
BIOL A183L	Botany Lab	1
BIOL A185	Introduction to Biology for Majors 2: Ecology, Evolution, Diversity, and Physiology	5
BIOL A210	General Microbiology	5
BIOL A220	Human Anatomy	5
BIOL A221	Anatomy-Physiology	4
BIOL A225	Human Physiology	5
BIOL A280	Evolutionary Ecology	4
BIOL A281	Biochemistry	2
BIOL A282	Molecular Biology	2
BIOL A283	Genetics	4
CHEMISTRY		
CHEM A100	Principles of Chemistry	3
CHEM A110	Introduction to Chemistry	5
CHEM A130	Preparation for General Chemistry	4
CHEM A180	General Chemistry A	5
CHEM A185	General Chemistry B	5
CHEM A220	Organic Chemistry A	3
CHEM A220L	Organic Chemistry A Lab	2
CHEM A225	Organic Chemistry B	3
CHEM A225L	Organic Chemistry B Laboratory	2
ENVIRONMENTAL SCIENCE		
ESEC A100	Introduction to Environmental Science	3
ESEC A110	Island Ecology	3
ESEC A121	Marine Intertidal Ecology	1
ESEC A124	Ecology of the Gray Whale	1
GEOLOGY		
GEOL A101	Age of the Dinosaurs	4
GEOL A105	General Geology	3
or GEOL A105H	General Geology Honors	
GEOL A105L	General Geology Laboratory	1
or GEOL A105M	General Geology Laboratory Honors	
GEOL A106	Earth Science for Teachers	4
GEOL A110	Physical Geology	4
GEOL A115	California Geology	3
GEOL A160	Environmental Geology	4
GEOL A185	Evolution of the Earth	3
GEOL A185L	Evolution of the Earth Lab	1
MARINE SCIENCE		
MRSC A100	Oceanography	3
or MRSC A100H	Oceanography Honors	
MRSC A100L	Oceanography Laboratory	1
or MRSC A100M	Oceanography Laboratory Honors	
MRSC A120	Marine Aquarium Science	2
MRSC A180	Marine Biology	3
MRSC A180L	Marine Biology Lab	1
MRSC A185	Coastal Oceanography	3
MRSC A185L	Coastal Oceanography Lab	1
MRSC A187	Marine Mammals	3
PHYSICS		
PHYS A110	Conceptual Physics	3
PHYS A111	Introductory Physics Laboratory	1
PHYS A120	Algebra Based Physics: Mechanics	4
PHYS A125	Algebra Based Physics:Electricity/ Magnetism	4
PHYS A130	University Physics 1 (non-majors)	4
PHYS A135	University Physics 2 (non-majors)	4
PHYS A185	Calculus Based Physics: Mechanics	4
PHYS A280	Calculus Based Physics: Electricity/ Magnetism	4
PHYS A285	Calculus Based Physics: Modern	4
Total		**18**
AS General Education Option 1, 2, or 3		**Varies**

Course	Title	Units
Transferable electives to satisfy unit requirement		**Varies**
Total Degree Units		**60**

Program Sequence

These sequences at Orange Coast College are general course curriculum maps for students to finish all major and general education requirements for two-year completion of degrees, and/or fulfillment of transfer requirements. The course sequence may include course prerequisites and other placement requirements. **Students are advised to meet with an Orange Coast College Counselor to review course selections and sequences to ensure that completion of this program will meet a student's transfer and career goals.**

Course	Title	Units
Year 1		
Semester 1		
AS MAJOR COURSE: ASTR, BIOL, CHEM, ECOL, ESEC, GEOL, MRSC, PHYS (See Requirements for Courses)		3-5
OCC AS GE AREA A1- CHOOSE ONE		3
OCC AS GE AREA C1- CHOOSE ONE		3
OCC AS GE AREA D- CHOOSE ONE		3
OCC AS GE AREA C2- CHOOSE ONE		3
	Units	**15-17**
Semester 2		
Select one of the following or satisfy Math competency (completion of High School Algebra 2 with a "C" or better)		3-4
MATH A030 or MATH A045	Intermediate Algebra [1] or Combined Elementary and Intermediate Algebra	
AS MAJOR COURSE: ASTR, BIOL, CHEM, ECOL, ESEC, GEOL, MRSC, PHYS (See Requirements for Courses)		3-5
OCC AS GE AREA A2- CHOOSE ONE [2]		3-4
ELECTIVE (DEGREE APPLICABLE)		3
	Units	**12-16**
Year 2		
Semester 1		
AS MAJOR COURSE: ASTR, BIOL, CHEM, ECOL, ESEC, GEOL, MRSC, PHYS (See Requirements for Courses)		3-5
ELECTIVE (DEGREE APPLICABLE)		12
	Units	**15-17**
Semester 2		
AS MAJOR COURSE: ASTR, BIOL, CHEM, ECOL, ESEC, GEOL, MRSC, PHYS (See Requirements for Courses)		3-5
AS MAJOR COURSE: ASTR, BIOL, CHEM, ECOL, ESEC, GEOL, MRSC, PHYS (See Requirements for Courses) [3]		0-6
ELECTIVE (DEGREE APPLICABLE) [4]		15
	Units	**18-26**
	Total Units	**60-76**

1

Math A030 or higher OR take 3-4 degree applicable elective units if math competency was met through completion of High School Algebra 2 with a "C" or better; *100-level Math courses satisfy AS Math Requirement and OCC AS GE AREA A2

2

OCC AS GE AREA A2 - Required if 100-level MATH will not be taken to meet Math competency. If MATH A100 or higher will be taken, then needs to take 3-4 degree applicable elective units

3

TO REACH MINIMUM 18 UNITS OF MAJOR

4

VARIES TO REACH MINIMUM 60 DEGREE APPLICABLE UNITS