

# Program Map: Natural Resource Management



Completion Award **AA Degree, DTA** 

Program Length 6 Quarters

Program Code AANR Apply Online pencol.edu/GetStarted

This is the Natural Resource Management (Fisheries, Forestry, Wildlife, etc.) program map for the Math & Science Area of Study. This map is intended as a general guide for a suggested course of study. Please work with your academic advisor regarding your specific goals and transfer requirements.

#### Suggested Order Order Credits Category Course 1 Natural Science 1 5 CHEM& 161L: General Chemistry with Lab I 2 Quantitative Skills MATH& 141: Precalculus I 5 3 **Communication Studies** 5 ENGL& 101: Composition I 4 Elective CHEM& 162L: General Chemistry with Lab II 5 5 Natural Science 2 MATH&142: Precalculus II 5 6 **Communication Studies 2** ENGL&102: Composition II 5

# **30 Credits**

7	Elective	CHEM& 163L: General Chemistry with Lab III	5
8	Elective	MATH& 151: Calculus I: Analytic Geometry	5
9	Elective	Choose one:	5
		CEOC 120: Introduction to Dhysical Coography	

GEOG 120: Introduction to Physical Geography GEOL& 101L: Introduction to Physical Geology

## 45 Credits

10	Natural Science 3	BIOL& 221L: Ecology and Evolution	5
11	Humanities 1	CMST&220: Public Speaking	5
12	Social Science 1	Choose one:	5
		POLS& 101: Intro Political Science POLS& 202: American Government	
13	Elective	BIOL& 222L: Molecular and Cellular Biology	5

Suggested	Order
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Order	Category	Course	Credits
14	Social Science 2	ECON& 201: Microeconomics	5
15	Humanities 2	Choose one:	5
		PHIL& 101: Introduction to Philosophy PHIL& 115: Critical Thinking PHIL 130: Ethics	
16	Elective	BIOL& 223L: Organismal Biology	5
17	Social Science 3	Choose one:	5
		PSYC& 100: General Psychology SOC& 101: Introduction to Sociology	
18	Humanities 3	Choose one:	5
	Choose one multicultural studies course.	ENGL 250: Intercultural Literature ENGL& 254: World Literature I IS 103: Women's Voices Arts and Humanities IS 109: Introduction to Indigenous Humanities	

Total credits required:

90



# Math & Science

### **Area of Study Outcomes**

#### **Communication Competencies**

- Comprehend the difference between written opinions vs ideas supported by scientific inquiry.
- Demonstrate the ability to communicate scientific ideas and the process of science.

#### **Quantitative Reasoning**

- Manipulate numbers (large and small), use common measurement systems, and solve simple linear algebraic problems.
- Recognize functional relationships between and among measurable phenomena.
- Apply systematic approaches and logic to solving quantitative problems.
- Translate mathematical symbols into words and words into mathematical symbols.
- Demonstrate the ability to use modeling and simulation to solve scientific problems.

#### Information Competencies

- Recognize the difference between questions of high scientific impact vs those unlikely to provide critical information about a scientific phenomenon or process.
- Ability to apply the process of science.

#### **Critical Thinking**

- Identify and troubleshoot scientific problems.
- Demonstrate the ability to use quantitative reasoning and analyze data.
- Demonstrate the ability to apply the process of science.

#### **Personal and Interpersonal Competencies**

- Gain an understanding of the relationships between science and society.
- Gain familiarity with and an appreciation for the interdisciplinary nature of science.
- Demonstrate the ability to collaborate and understand the importance of collaboration in science.

# **Career Pathways**

By earning a degree or certificate in the area of Math & Science you'll be on your way to any of the following career opportunities listed below:

- Astronomer
- Atmospheric scientist
- Bioengineer
- Biologist
- Chemist
- Computer Scientist
- Engineer
- Environmental scientist
- Mathematician
- Materials scientist
- Physicist
- Sustainable agriculturist

### **Program Notes**

Please note that many universities require a foreign language and intermediate algebra (Math 98 at PC) as admissions criteria. Select from three subject areas to fulfill Social Science, Natural Science, and Humanities Distribution requirements. Please refer to the AA degree guide for additional information.

**Possible additional pre-college classes depending upon placement level:** Engl 90 (5 credits) and Math 63/90 (5-10 credits).

