Academic Year 2016 - 2017



21250 Stevens Creek Blvd. Cupertino, CA 95014 408-864-5678 www.deanza.edu

Environmental Studies

# **Environmental Resource Management and Pollution** Prevention

Biological, Health and Environmental Sciences Division Kirsch Center, Room 228 408-864-8773

Counseling and Advising Center Student and Community Services Bldg., 2nd Fl. 408-864-5400

Please visit the Counseling Center to apply for degrees and for academic planning assistance.

#### Certificate of Achievement Requirements

A minimum "C" grade in each major course. Note: A maximum of six (6) quarter units may be transferred from other academic institutions.

### Certificate of Achievement-Advanced Requirements

- A minimum "C" grade in each major course.
   Demonstrated proficiency in English and mathematics as evidenced by eligibility for EWRT IA or EWRT IAH or ESL 5 and eligibility for MATH 114.

Note: A maximum of 18 quarter units may be transferred from other academic institutions.

#### A.A./A.S. Degree Requirements

- Completion of all General Education (GE) requirements (31-42 quarter units) for the A.A./A.S. degree. GE units must be completed with a minimum 2.0 GPA ("C" average).
- 2. Completion of all major requirements. Each major course must be completed with a minimum "C" grade. Major courses can also be used to satisfy GE requirements (except for Liberal Arts degrees).

Note: A maximum of 22 quarter units from other academic institutions may be applied toward the major.

3. Completion of a minimum of 90 degree-applicable quarter units (GE and major units included). All De Anza courses must be completed with a minimum 2.0 GPA ("C" average). All De Anza courses combined with courses transferred from other academic institutions must be completed with a minimum 2.0 GPA ("C average).

Note: A minimum of 24 quarter units must be earned at De Anza College.

Major courses for certificates and degrees must be completed with a letter grade unless a particular course is only offered on a pass/no-pass basis.

# **Environmental Resource Management and Pollution Prevention**

# Certificate of Achievement

In this career-oriented program, students are trained in the interrelated fields of environmental resource management (sustainable multiple-use management of our fundamental environmental resources - air, water, land, food and extracted materials) and pollution prevention. The training received is multidisciplinary, covering the areas of law/regulation, public health, economics, and science and technology, and includes coursework covering a variety of practical management tools that employers look for. Upon completion, students are prepared for employment as entry-level environmental management/pollution prevention specialists in a wide range of positions and settings, including working for business/industry, government, and non-profit organizations. This certificate is the first step in a career ladder whereby students can optionally choose to continue on to then complete a Certificate of Achievement-Advanced and finally an A.A. degree.

Student Learning Outcomes - upon completion, students will be able to:

- · identify fundamental environmental management/pollution prevention issues and apply sustainable solutions.
- 1. Meet the requirements for this certificate level.
- 2. Complete the following.

E S 6 E S 50	Introduction to Environmental Law Introduction to Environmental Resource	4
L 0 00	Management and Pollution Prevention	2
E S 61A	Environmental Resource Management and	
	Pollution Prevention: Air, Water and Land	3
E S 61B	Environmental Resource Management and	
	Pollution Prevention: Energy, Chemicals	-
	and Waste	3
Complete two (2) courses:		
E S 62A	Environmental Management Tools:	
	Environmental Management Systems (EMS)	
	and Environmental Performance Metrics (3)	
E S 62B	Environmental Management Tools:	
	CEQA and Environmental Impact	
	Reports (EIRs) (3)	
E S 62C	Environmental Management Tools:	
	Environmental Site Assessments (ESAs) (3)	
E S 62D	Environmental Management Tools:	
	Industrial Ecology and Sustainable Design	
	Principles (3)	
	Total Units Required	18

# Environmental Resource Management and **Pollution Prevention**

### Certificate of Achievement-Advanced

In this career-oriented program, students are trained in the interrelated fields of environmental resource management (sustainable multiple-use management of our fundamental environmental resources - air, water, land, food and extracted materials) and pollution prevention. The training received is multidisciplinary, covering the areas of law/regulation, public health, economics, and science and technology, and includes coursework covering a variety of practical management tools that employers look for. Upon completion, students are prepared for employment as environmental management/ pollution prevention specialists in a wide range of positions and settings, including working for business/industry, government, and non-profit organizations. This certificate is the middle step in a career ladder with the first step being a Certificate of Achievement and the last (optional) step being an A.A. degree.

Student Learning Outcomes - upon completion, students will be able to:

- identify both fundamental and advanced environmental management/pollution prevention issues and apply sustainable solutions.
- 1. Complete the Certificate of Achievement requirements. 18
- 2. Meet the requirements for this certificate level.
- 3. Complete the following.

E S 56	Introduction to Environmental Health	4
E S 64	AB 32 (CA Global Warming	
	Solutions Act of 2006)	1

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# Complete two (2) courses not previously completed for the Certificate of Achievement:

E S 62A	Environmental Management Tools: Environmental Management Systems (EMS) and Environmental Performance Metrics (3)
E S 62B	Environmental Management Tools:
	CEQA and Environmental Impact
	Reports (EIRs) (3)
E S 62C	Environmental Management Tools:
	Environmental Site Assessments (ESAs) (3)
E S 62D	Environmental Management Tools:
	Industrial Ecology and Sustainable Design
	Principles (3)
	Total Units Required29

# Environmental Resource Management and Pollution Prevention

# A.A. Degree

In this career-oriented program, students are trained in the interrelated fields of environmental resource management (sustainable multiple-use management of our fundamental environmental resources - air, water, land, food and extracted materials) and pollution prevention. The training received is multidisciplinary, covering the areas of law/regulation, public health, economics, and science and technology, and includes coursework covering a variety of practical management tools that employers look for. Upon completion, students are prepared for either employment as environmental management/ pollution prevention specialists (in a wide range of positions and settings, including working for business/industry, government, and non-profit organizations) or for transfer to four-year degree programs in Environmental Studies or related majors. This degree is the last step in a career ladder with the first step being a Certificate of Achievement and the second being a Certificate of Achievement-Advanced.

Student Learning Outcomes - upon completion, students will be able to:

- identify both fundamental and advanced environmental management/pollution prevention issues and apply sustainable solutions.
- understand and appreciate the broader context of their work in terms of achieving a sustainable society.

<ol> <li>Complete the Certificate of Achievement and the Certificate of Achievement-Advanced requirements.</li> <li>Meet the A.A./A.S. degree requirements.</li> <li>Complete the following.</li> </ol>				
ES1 ES2	Introduction to Environmental Studies Humans, the Environment, and	4		
	Sustainability	4		
E S 95	Introduction to Environmental Careers	1		
ESCI 1	Environmental Science	4		
ESCI 1L	Environmental Science Laboratory	1		
Complete nine (9) units: 9				
E S 58	Introduction to Green Building (1)	5		
E S 63	Agenda 21: Blueprint for Sustainability (1)			
E S 65	Environmental Stewardship (1)			
E S 66	Environmental Leadership (1)			
E S 67	Environmental Team-Building (1)			
E S 68	Community-Based Coalitions and			
	Stakeholders (1)			
E S 70	Introduction to Energy Management Technology (1)			
E S 76	Energy Star Products (1)			
E S 76A	Solar Thermal Systems (1)			
E S 79	Renewable and Alternative Energy Systems	; (1)		
ESCI 61	Introduction to Photovoltaic (PV)	( )		
	Technology (3)			
ESCI 63	Photovoltaic (PV) Technology Field Project (	(2)		
Major	Environmental Resource Management			
	and Pollution Prevention	52		
GE	General Education (31-42 units)			
Electives	Elective courses required when major			
	units plus GE units total is less than 90			
Total Units Required90				