

Academic Year **2015 - 2016** 

### Environmental Resource Management and Pollution Prevention

Biological, Health, Environmental Sciences Division/ES Dept. Kirsch Center Room 218 408-864-8628, 8773 Counseling Center Student and Community Services Bldg. 2nd Fl. 408-864-5400

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

#### Certificate of Achievement Level 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 Level Requirements

- I. 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).
- 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.

ES6	Introduction to Environmental Law	4
E S 50	Introduction to Environmental Resource Management and Pollution Prevention	2
E S 61A	Environmental Resource Management and	2
20011	Pollution Prevention: Air, Water and Land	3
E S 61B	Environmental Resource Management and	
	Pollution Prevention: Energy, Chemicals	
	and Waste	3
E S 62A	Environmental Management Tools:	
	Environmental Management Systems (EMS)	
	and Environmental Performance Metrics	2
E S 62B	Environmental Management Tools:	
	Environmental Impact Reports (EIRs)	2
E S 62C	Environmental Management Tools:	
	Environmental Site Assessments (ESAs)	2
E S 62D	Environmental Management Tools:	
	Industrial Ecology and Sustainable Design	
	Principles	2
	Total Units Required	20

# 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 course requirements.202. Meet the requirements for this certificate level.303. Complete the following.20		
E S 56	Introduction to Environmental Health	4
Complete a mi following: E S 58 E S 63 E S 64 E S 65 E S 66 E S 66 E S 67	Introduction to Green Building (1) Agenda 21: Blueprint for Sustainability (1) AB 32 (CA Global Warming Solutions Act of 2006) (1) Environmental Stewardship (1) Environmental Leadership (1) Environmental Team-Building (1)	4
E S 68	Community-Based Coalitions and Stakeholders (1)	
E S 70	Introduction to Energy Management Technology (1)	
E S 79	Renewable and Alternative Energy Systems Total Units Required	• • •

# 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.

1. Complete the course requirements for the

Certificate of Achievement and the Certificate of Achievement-Advanced. 28

- 2. Meet the A.A./A.S. degree requirements.
- 3. Complete the following.

E S 1 E S 2	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
ESCI 61	Introduction to Photovoltaic (PV) Technolog	у З
ESCI 63	Photovoltaic (PV) Technology Field Project	2

Complete the five (5) courses from the following not previously completed for the Certificate of Achievement-Advanced: 5

E S 58	Introduction to Green Building (1)
E S 63	Agenda 21: Blueprint for Sustainability (1)
E S 64	AB 32 (CA Global Warming
	Solutions Act of 2006) (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 79	Renewable and Alternative Energy Systems (1)
Major	Environmental Resource Management and
	Pollution Prevention 52 units
GE	General Education (31-42 units)
Electives	Elective courses required when major
	units plus GE units total is less than 90
	Total Units Required90 units