



1. Catalog description of the program (program goals and objective)

The goals of De Anza Colleges Environmental Studies programs are multiple. The Environmental Studies Department offers courses and internship opportunities to students preparing for employment or transfer in four distinct pathways: Biodiversity, Energy Management, Environmental Compliance, and Environmental Stewardship. Each of these pathways prepare individuals for a full range of employment opportunities in existing and emerging green careers.

The Biodiversity Specialist certificate and A.A. degree programs are primarily transfer preparatory. Students are required to complete environmental science and natural resource conservation biology with an emphasis on combining classroom and field studies. The program helps instill in students the processes of scientific inquiry, while offering a solid foundation for further study in environmental science, environmental studies, or another related discipline.

In line with the growing number of “green” career opportunities, the Energy Management and Climate Policy certificate and A.A. degree programs prepare individuals to secure employment opportunities in energy efficient building systems operation, including photovoltaic technology and other renewable and alternative energy systems. As students proceed in the program, they can pursue additional coursework to give more context to their acquired knowledge, including courses in Environmental Science and Environmental Studies.

Another specialization within De Anza Environmental Studies Department is the Environmental Compliance and Pollution Prevention program. These certificate and A.A. degree programs give students more in depth knowledge of major international, national, and State environmental and resource conservation legislation and regulations. Students are guided to best means to enforce and implement these regulations within an individual organization, while developing basic field research and effective community relations techniques.

Finally, the Environmental Stewardship program is focused natural resource conservation and field research techniques. The program, through a partnership developed with the Department of

Fish and Game, has unique opportunity to work on local wildlife corridor study and preservation projects. The field study and animal tracking techniques that students develop well beyond that which students would develop in most other two-year program. Environmental Stewardship students have the opportunity to complete field studies in a number of major wildlife corridors around the greater Bay Area: Coyote Valley, Pajaro River Basin, Pacheco Pass, and the Santa Cruz Mountains.

2. Certificate and degree programs offered (title and units)

Biodiversity Specialist

Certificate of Achievement – **Biodiversity Specialist** – 26 units

Certificate of Achievement-Advanced – **Biodiversity Specialist** – 44 units

A.A. Degree – **Biodiversity Specialist** – 50 units plus General Education

Energy Management and Climate Policy

Certificate of Achievement – **Energy Management and Climate Policy** – 26 units

Certificate of Achievement-Advanced – **Energy Management and Climate Policy** – 39 units

A.A. Degree – **Energy Management and Climate Policy** – 50 units plus General Education

Environmental Compliance and Pollution Prevention

Certificate of Achievement – **Environmental Compliance and Pollution Prevention** – 26 units

Certificate of Achievement-Advanced – **Environmental Compliance and Pollution Prevention** – 40 units

A.A. Degree – **Environmental Compliance and Pollution Prevention** – 50 plus General Education

Environmental Stewardship

Certificate of Achievement – **Wildlife Corridor Technician** – 26 units

Certificate of Achievement-Advanced – **Environmental Stewardship** – 41 units

A.A. Degree – **Environmental Stewardship** – 50 units plus General Education

3. Program-level Student Learning Outcomes

4. Data on certificate and degree awards for previous year (2009-10)

Certificates of Achievement

Biodiversity Specialist – 2

Energy Management – 6

Environmental Compliance – 1

Wildlife Corridor Technician – 2

Certificates of Achievement-Advanced

formerly Certificates of Proficiency

Biodiversity Specialist – 2

Energy Management – 3

Environmental Compliance – 1

Environmental Stewardship – 2

Associate in Arts degrees

Biodiversity Specialist – 1

Energy Management – 4
Environmental Compliance – 2
Environmental Stewardship - 3

5. Regional and State Labor Market Data

Employment opportunities for De Anza Environmental Studies graduates exist in agencies and organizations in both the public and private sectors. The department's offerings are sufficiently broad in order to prepare individuals for the growing number opportunities the existing and emerging green careers sectors. Graduates from the Biodiversity Specialist and Environmental Stewardship programs will be well prepared for positions as environmental and conservation science technicians. Energy Management and Environmental Compliance program completers' skill sets are in line emerging career opportunities and energy efficiency systems technicians, PV installers, and environmental compliance technicians. According to the California Employment Development Department's Labor Market Information data for the San Jose-Sunnyvale-Santa Clara MSA, there are projected to be 12 combined annual openings for environmental protection and conservation technicians for the period 2006-2016. Both occupations will experience steady growth rates of 15.4% and 10% respectively. Statewide employment projections for environmental protection and conservation technicians will also be strong, with 570 annual openings in California for the period 2008-2018. While the job categories of environmental protection and conservation technicians are relatively new, it is expected that employment opportunities for individuals with these skill sets will continue to grow as public and private organizations implement new State environmental protection regulations.

6. Areas for new course and/or program development

7. Recommendations of Advisory Committee (retain or delete program)