De Anza College
Computer Aided Design (CAD)
CTE Program Review for 2010-11

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

De Anza College's Computer Aided Design (CAD) program has three primary missions. The first is to prepare individuals to seek entry-level employment as an engineering technicians or drafter. The CAD program provides quality instruction in the engineering design software applications that are being used by industry; including AutoCAD, SolidWorks, and ProENGINEER. In addition to serving entry-level students, the CAD program also provides on-going, professional development for practicing technicians and engineers with software updates and in-depth instruction engineering design applications being utilized by area manufacturing industries: Unigraphics, CATIA, AutoDesk Inventor, and project lifecycle management software. Lastly, the CAD program serves many displaced worker who are pursuing training and preparing to re-enter the workforce. The CAD coursework enhances their transferable skills in industrial technology, manufacturing machining, and problem solving.

De Anza's CAD faculty maintain strong contacts with regional industry partners and software developers. The program curriculum stays current with the latest trends which informs new course development and program improvement. Based on input from industry representatives, faculty have developed new offerings in project lifecycle management and the civil engineering and architecture applications of AutoCAD and AutoDesk REVIT. CAD faculty are also working to On-line versions of a number popular course offerings in order to increase accessibility to a broader student population.

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

Skills Certificate *(not transcripted)* – **AutoDesk** – 12 units (quarter)
Skills Certificate *(not transcripted)* – **SolidWorks** – 12 units
Certificate of Achievement – **Pro/Engineer** – 20 units
Certificate of Achievement-Advanced – **Computer Aided Design - Mechanical** – 28 units
A.A. Degree – **Computer Aided Design - Mechanical** – 46 units plus General Education

3. Program-level Student Learning Outcomes

Developed by Margaret Bdzil
October 2010

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

Certificates of Achievement	SolidWorks – 1 award Pro/ENGINEER – 7
Certificates of Achievement-Advanced *formerly Certificates of Proficiency*	Computer Aided Design - Mechanical – 2
Associate in Science degrees	Computer Aided Design - Mechanical – 5

5. Regional and State Labor Market Data

Employment opportunities for De Anza Computer Aided Design certificate and degree program graduates exist in research and design firms and manufacturing companies throughout the South Bay region. 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 320 annual openings for drafters and engineering technicians over the period 2006-2016. In addition to replacement positions, this occupational category is expected to create for new positions, with industrial engineering technicians projected to have the strongest growth at 14%. The California-wide employment projections for the period 2008-2018 anticipate 2,190 annual openings, with industrial engineering technicians showing the strongest growth among related occupations at 14% annually.

6. Areas for new course and/or program development

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