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

The goal of De Anza College's Computer Information Systems – Network Administration program is to prepare individuals for entry-level employment as a network technician or computer support specialist. This certificate program is designed to give students a foundation in programming in C, local area network administration, and programming. It also helps students build transferable skills in programming and problem solving. The program serves the needs of individuals who are preparing for a first career, as well as those current employed or wishing to reenter the workforce in the computer support and network administration fields and in need of updated skills.

A related specialization within the Network Administration program is De Anza's Enterprise Security Professional program. This program builds upon students' knowledge of network administration and Internet protocols in the context for establishing and maintaining secure networks for large-scale businesses, government agencies, and non-profit organizations. In an era when increasing amounts of critical data and information are stored electronically, the need for professionals who can secure this environment from hackers and malicious attacks is growing in tandem. The Enterprise Security Professional program expands upon students' existing knowledge of network administration and TCP/IP protocols to include more in depth information about security-related concepts, how to develop a network security plan, and how to execute a disaster recovery plan in the event of an attack. The program prepares individuals for entry-level employment as computer security experts, as well as network administrators and systems support specialists. Students who enroll in the Enterprise Security Professional with previous education and experience in computer science or network administration can secure employment at an earlier stage in their studies.

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

Computer Systems Security

Skills Certificate (*not transcripted*) – **Home/Small Business Computer Security** – 14-15.5 units (qtr.)
Certificate of Achievement – **Computer Crime Investigation (Forensics)** – 23.5 units
Certificate of Achievement – **Enterprise Security Professional** – 25.5 units
Certificate of Achievement-Advanced – **Enterprise Security Professional** – 41 units
A.A. Degree – **Enterprise Security Professional** – 41 units plus General Education

Network Administration
Certificate of Achievement – **Network Administration** – 19.5-21 units
Certificate of Achievement – **Network Administration** – 40.5-41 units
A.A. Degree – **Network Administration** – 40.5-41 units plus General Education

System Support Services
Certificate of Achievement – **Help Desk** – 22-23.5 units
Certificate of Achievement – **System Support Services** – 43-46 units
A.A. Degree – **System Support Services** – 43-46 plus General Education

3. Program-level Student Learning Outcomes

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

Certificates of Achievement-Advanced   Network Administration – 1
formerly Certificates of Proficiency

Associate in Arts degrees   Network Administration – 2

5. Regional and State Labor Market Data

Employment opportunities for Network Administration and Enterprise Security Professional graduates exist in companies, agencies, and organizations of all sizes. Network and systems security professionals are increasingly becoming key players in systems administration teams. Individuals with skills in network and systems security are qualified to work in a number of related positions that require knowledge of network fundamentals with an emphasis on predicting and preventing security compromises and break-ins. Individuals with a larger repertoire of technical skills, education, and professional experience have the greatest potential for securing employment. 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 276 combined annual openings for computer support specialists and 154 annual openings for network and computer systems administrators for the period 2006-2016. Both occupations will experience steady growth rates of 7.7% and 22.9% respectively. Statewide employment projections for computer support specialists and network and computer systems administrators

will also be strong, with 2,520 and 1,300 annual openings in California for the period 2008-2018. While the job categories of network and enterprise security specialists are relatively new, the data for related occupations show strong and steady growth in demand for individuals with similar skill sets and qualifications.

6. Areas for new course and/or program development

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