A. BACKGROUND INFORMATION

I. Background Information Relative to College of Engineering

A. General Information

College of Engineering
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Tel: 408-924-3800
Fax: 408-924-3818
E-mail: coe@email.sjsu.edu

Dean: Dr. Belle Wei
Associate Dean of Graduate and Extended Studies: Dr. Ahmed Hambaba
Associate Dean of Research: Dr. Kevin Corker
Associate Dean of Undergraduate Studies: Dr. Ping Hsu

B. College of Engineering’s Mission

We will provide empowering educational opportunities to students for their technical, professional and social development in a competitive and dynamic global society. We will build a vibrant community of students, faculty, staff, alumni, and industry professionals through strategic collaborations with Silicon Valley, California, national and global partners.

College of Engineering Goals
The College has identified three goals to achieve its vision and mission.

- To be preeminent among undergraduate engineering institutions in the U. S.
  - Nationally recognized for engagement with local and global industries
  - Preferred California State University campus for undergraduate engineering education
  - Nationally recognized for curriculum and quality of undergraduate experience

- To be a nationally recognized, professionally oriented graduate engineering program
  - Nationally recognized for an applied technological curriculum
  - Coordinated graduate and outreach programs responsive to regional industry

- To be the preferred partner for applied research and development
  - Initiating centers of excellence and programs
C. Alignment with University Mission and Goals

University Mission
In collaboration with nearby industries and communities, SJSU faculty and staff are dedicated to achieving the university's mission as a responsive institution of the State of California. To enrich the lives of its students, to transmit knowledge to its students along with the necessary skills for applying it in the service of our society, and to expand the base of knowledge through research and scholarship.

“Goals-
For both undergraduate and graduate students, the university emphasizes the following goals:

- In-depth knowledge of a major field of study.
- Broad understanding of the sciences, social sciences, humanities, and the arts.
- Skills in communication and in critical inquiry.
- Multi-cultural and global perspectives gained through intellectual and social exchange with people of diverse economic and ethnic backgrounds
- Active participation in professional, artistic, and ethnic communities.
- Responsible citizenship and an understanding of ethical choices inherent in human development.”

“Character and Commitment-
San José State University is a major, comprehensive public university located in the center of San José and in the heart of Silicon Valley. SJSU is the oldest state university in California. Its distinctive character has been forged by its long history, by its location, and by its vision - a blend of the old and the new, of the traditional and the innovative. Among its most prized traditions is an uncompromising commitment to offer access to higher education to all persons who meet the criteria for admission, yielding a stimulating mix of age groups, cultures, and economic backgrounds for teaching, learning, and research. SJSU takes pride in and is firmly committed to teaching and learning, with a faculty that is active in scholarship, research, technological innovation, community service, and the arts.”

D. Faculty and Students

Table A-1 provides a summary of the faculty and student counts for the Fall Semester of 2005 for the College and each program under evaluation.
<table>
<thead>
<tr>
<th></th>
<th>HEAD COUNT</th>
<th>FTE</th>
<th>TOTAL STUDENT CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FT</td>
<td>PT</td>
<td></td>
</tr>
<tr>
<td>Tenure Track Faculty</td>
<td>66</td>
<td>5</td>
<td>60.53</td>
</tr>
<tr>
<td>Other Teaching Faculty</td>
<td>2</td>
<td>99</td>
<td>31.26</td>
</tr>
<tr>
<td>(excluding student assistants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Teaching Assistants</td>
<td>0</td>
<td>42</td>
<td>8.15</td>
</tr>
<tr>
<td>Undergraduate Students</td>
<td>2367</td>
<td>647</td>
<td>2593.45</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>513</td>
<td>1022</td>
<td>645.86</td>
</tr>
<tr>
<td>Professional Degree Students</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table A-1 Faculty and Student Head Counts, Fall 2005

FTE: Full-time Tenure Track Faculty = Tenured & Probationary. Part-time Tenure Track Faculty = Faculty Early Retirement Program (FERP). Full-time Other Teaching faculty = Lecturer at 1.00. Part-time Other Teaching Faculty = Lecturer < 1.00. Student Teaching Assistants = Grad. Assistants & Teaching Associates, which we only considered as part-time only.

E. Engineering Personnel and Policies

Personnel – See Table A-2.

College of Engineering
Year: Fall 2005
College of Engineering

<table>
<thead>
<tr>
<th></th>
<th>HEAD COUNT</th>
<th>FTE</th>
<th>RATIO TO FACULTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FT</td>
<td>PT</td>
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</tr>
<tr>
<td>Administrative</td>
<td>2</td>
<td>7</td>
<td>5.2</td>
</tr>
<tr>
<td>Faculty (tenure-track)</td>
<td>82</td>
<td>5</td>
<td>70</td>
</tr>
<tr>
<td>Other Faculty (excluding student Assistants)</td>
<td>5</td>
<td>120</td>
<td>42</td>
</tr>
<tr>
<td>Student Teaching Assistants</td>
<td>0</td>
<td>42</td>
<td>9.15</td>
</tr>
<tr>
<td>Student Research Assistants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technicians/Specialists</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office/Clerical Employees</td>
<td>14</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Student Enrollment</td>
<td>2367</td>
<td>647</td>
<td>2214</td>
</tr>
<tr>
<td>Graduate Student Enrollment</td>
<td>513</td>
<td>1022</td>
<td></td>
</tr>
</tbody>
</table>

Table A-2. Personnel and Students
F. non-Academic Support Units

a. The College of Engineering Computing Systems

The College of Engineering Computing Systems (ECS) is comprised of five full-time employees. Each individual is assigned an area of interest or specialization. The areas of interest and specialization are: faculty and staff desktop support, networking, World Wide Web (WWW), UNIX laboratories, and academic instructional laboratories. Several student assistants are shared by all ECS personnel.

a-1. Faculty and Staff Support

ECS develops and supports laboratory, faculty, and staff computer systems; implements, configures and maintains application software; network operating systems; provides Internet connectivity, and manages hardware and software licenses. ECS ensures the functionality, applicability, and maximum uptime of laboratory servers and workstations. As well, ECS ensures operational, reliable, secure, and optimal computer systems for academic computer laboratories and desktops.

The following list outlines specific work activities performed by ECS support personnel:

(1) Scott Pham, Information Systems Analyst, Career Level

Plan, design, specify, evaluate select, order, install, configure, maintain, and administer software and hardware for servers, clients, and peripherals in academic computer laboratories. (See Exhibit II-3a)

As needed, plan, specify, evaluate select, order, install, configure, and maintain software and hardware for faculty and staff desktop computers and peripherals.

Troubleshoot laboratory and user operating systems and application software. Diagnose and repair computers and peripheral equipment. Develop procedures for secure and efficient laboratory use. Development of quick-recovery procedures to restore corrupt laboratory computer systems.

Support faculty and staff as technical consultants for software, operating systems, and Internet connectivity issues.

Maintain currency of virus protection. Maintain FTP server with current virus software and updates. Maintain frequent email and personal contact with faculty and staff.

(2) William Black, Operating Systems Analyst, Career Level

Design, implement, and maintain UNIX laboratory hardware and software for the purpose of coursework and research. (See Exhibit II-3b)

Provide supplemental support to department technicians.

Assist in developing department and college-wide systems and policies.

Investigate and evaluate new products and solutions.
Assist the Network Administrator with developing and implementing network configuration changes. 
Work directly with faculty and staff to resolve individual computer issues. (Help Desk)

(3) In the Process of Hiring, Information Systems Analyst, Career Level, Webmaster

Creates and manages the information content (words and pictures) and organization of the COE Web site (http://www.engr.sjsu.edu).
Manages the computer server and technical programming aspects of the Web site.
Educates and supports faculty and staff with Web related functions.
Works with ECS staff, department Chairs and Dean to establish the overall COE Web site design and policies.
The College of Engineering Webmaster typically "does it all." The Webmaster is someone with graphics design background who has also Web site creation skills and programming skills; mainly knowledge and experience with HTML, JAVA, and DHTML. The Webmaster administers multiple servers (i.e.: Web, FTP, Email, ListServer, Database, Applications, Files server) and writes or implement programs required by the faculty and staff.

(4) Ben Rashid, Information Systems Analyst, Career Level

The hardware technician provides hardware support and maintenance for the College of Engineering. The hardware technician is expected to: maintain, install, repair, and troubleshoot component level hardware in microcomputer systems, peripheral equipment, and local area networks; provide technical support for faculty and staff; act as liaison with hardware and software vendors; recommend upgrade requirements for software and hardware; maintain and monitor the College of Engineering computer inventory; and train and work closely with student assistants.

Specifically, Mr. Rashid troubleshoots email problems, desktop network issues, printing problems (including network printing), system performance issues, peripheral configuration, user account management, system security, part repair and service, hardware and software compatibility issues, and user data migration when new systems are installed.

(5) Kindness Israel, Information Systems Analyst, Expert Level, Director

The ECS Director is responsible for developing, implementing, managing, and maintaining cost-effective, reliable College-wide computing and network systems, which includes administrative systems, instructional computer labs, and Internet access. The Director makes specifications for procurement, installation, support, and maintenance of requisite hardware and software for the COE, makes recommendations for all Engineering departments, develops and implements operational policies, procedures, and practices necessary for reliable delivery of computing and network services in consultation with the Central Computing and Telecommunications, coordinates
technology projects with the appropriate faculty, staff, and students, builds consensus and solicits input when making significant changes, and maintains good channels of communication in terms of decisions and policies associated with the delivery of technical services within the College. He provides support and direct supervision of personnel subordinate to this position (5 full time staff and 40 hours/week student assistants) including initiating and monitoring project planning and reviews, recommending personnel actions, preparing performance reviews, job descriptions, participates in recruitment of ECS personnel. He develops and implements requests and proposals for acquisition of equipment, software, supplies, and services, and assists in providing technical training for faculty and staff. The director also develops and maintains databases, records, documents, and files associated with computing and networking systems.

a-2. ECS Scope of Responsibility

a-2.1. Network Infrastructure
Responsible Person(s): Kindness Israel, William Black, Scott Pham
Scope: COE Building, IS Building, Aviation Building, All Departments
Hardware/Software:

- COE IP Copper/Fiber Backbone (Currently 2000 ports)
  - 4 Alcatel 9 Slot OmniSwitches
  - 15 Alcatel 5 Slot OmniSwitches
  - 16 Alcatel 3 Slot OmniSwitches
  - 7 Alcatel 5024 OmniStacks
  - 4 Alcatel 1032 OmniStacks
  - Dozens of Netgear and Linksys Hubs
  - 6506 Cisco Router
  - 2511 Cisco Router

- COE Wireless Network
  - Linux Router/Gateway
  - 8 Wireless Linksys Access Points
  - RADIUS Server

- SUSU Wireless Network
  - Router
  - 4 Switches
  - 16 Cisco 1200 Access Points

Design and Implementation of New Network (Upgrade to 4,000 ports)

- New Cat6 Copper and Multimode Fiber Infrastructure by May 2005
- New Cisco Electronics by August 2005

Student/Faculty Impact: Administration, Staff, Faculty, and Students
Policy/Guidelines: Internet usage policies are determined by the CSU Chancellor's office.

a-2.2. Core Servers
Responsible Person(s): Kindness Israel, William Black, Scott Pham
Scope: COE, All Departments
Hardware/Software:
Firewall (Linux using iptables)
Xvision Server (Alcatel SNMP Server)
VPN Server (Firewall access for Faculty)
3 DNS Servers (Domain Name Server Address Resolution)
DHCP Server (IP Address Leasing)
MRTG Monitor (Security Monitoring)
MIRROR Server (Linux Software Application Server)
3 ENGR MS Active Directory Servers (Primary Domain Controller)
Oracle 8i INFO Database (Faculty/Staff Database)
Oracle 8i CMPE Database (CMPE 138, 143)
Application Development Server (Opentrak, Peoplesoft Access)

Student/Faculty Impact: Administration, Staff, Faculty, and Students
Policy/Guidelines: ECS is responsible for the procurement, installation, and maintenance of all hardware and software necessary to ensure the smooth operation of the COE computing infrastructure.

a-2.3. COE Academic Laboratories
Responsible Person: Scott Pham
Scope: E333, E390, E391, E407, E393, E394
Hardware/Software: 150 Pentium Computers, Domain Controller, and File Server / MS Win2000
Student/Faculty Impact: All Undergraduate Students, and Faculty
Policy/Guidelines: ECS is responsible for the procurement, installation, and maintenance of all hardware and software necessary to conduct computer laboratory instruction in the COE academic laboratories (Exhibit II-3a).

a-2.4. Open Laboratories
Responsible Person: Scott Pham
Scope: E405 and E390
Hardware/Software: 50 Pentium Computers, Domain Controller / MS WinNT
Student/Faculty Impact: Undergraduate, Graduate Students, and Faculty
Policy/Guidelines: ECS is responsible for the procurement, installation, and maintenance of all hardware and software necessary to conduct computer laboratory instruction in the COE open laboratories (Exhibit II-3a).

a-2.5. Department Laboratories
Responsible Person(s): Faculty members who conduct classes in the laboratories and department technicians.
Scope: Network access is provided by ECS.
Hardware/Software: MS Operating Systems, Sun Solaris, Linux
Student/Faculty Impact: Undergraduate, Graduate Students, and Faculty
Policy/Guidelines: ECS provides network access to all department laboratories. ECS provides secondary-level support to every department and research laboratory. Secondary-level support consists of answering any technical questions posed by the
faculty or department technician thus ensuring the successful implementation of the project or class. Any ECS person may be called upon to assist.

a-2.6. Research Laboratories
Responsible Person(s): Faculty members who originally obtained the grant and department technicians.
Scope: Network access is provided by ECS.
Hardware/Software: Varies
Student/Faculty Impact: Graduate Students, Faculty
Policy/Guidelines: ECS provides network access to research laboratories such as the HAIL Lab, Cisco Laboratory, and faculty research laboratories. ECS provides secondary-level support to every department and research laboratory. Secondary-level support consists of answering any technical questions posed by the faculty or department technician thus ensuring the successful implementation of the project. Any ECS person may be called upon to assist.

a-2.7. UNIX (Solaris) Laboratories
Responsible Person(s): William Black, Kindness Israel
Scope: Primarily EE and CMPE Cadence Laboratories and Research Laboratories
Hardware/Software: 120 Sun Solaris, IBM AIX, and Linux on Intel Architecture
Student/Faculty Impact: Graduate Students enrolled in Cadence Classes, Department Graduate Research Projects
Policy/Guidelines: ECS provides UNIX support for all departments of the COE (Exhibit II-3b).

a-2.8. WWW.ENGR.SJSU.EDU Website
Responsible Person: In the Process of Hiring
Scope: COE, All Departments
Hardware/Software: Dell Linux Server / Apache, MySQL, PHP, WebAdmin, Photoshop
Student/Faculty Impact: All Administrative, Faculty, Staff, and Students
Policy/Guidelines: ECS maintains the COE home page and provides support for all departments and faculty. Many departments have their own webmasters. ECS has always sought to coordinate and streamline the efforts of the department webmasters with the COE main page.

a-2.9. Administrative Desktop Support
Responsible Person: Ben Rashid
Scope: Dean and Graduate Studies Offices, CEE, ChemE
Hardware/Software: Domain Controller and File Server / Microsoft Windows and Office Suite Software - All Versions, PeopleSoft, Oracle Discover Clients, Photoshop, and assorted workflow applications.
Student/Faculty Impact: Administration, Staff, and Faculty
Policy/Guidelines: ECS provides front-line support to the Dean and Graduate Studies, and CEE. The other departments in the COE have department-level technician support. ECS provides secondary-level support to every department. Secondary-level support consists of answering any technical questions posed by the faculty or department
technician thus ensuring the successful implementation of the department's operation. Any ECS person may be called upon to assist.

a-2.10. Email Support:
  Lotus Notes
  Responsible Person: Ben Rashid
  Scope: COE, All Departments
  Hardware/Software:
    Lotus Notes Servers - Central Computing
    Lotus Notes Clients - Ben Rashid
  Student/Faculty Impact: Administration, Staff, and Faculty
  Policy/Guidelines: It is the responsibility of ECS to install and configure the Lotus Notes client. Lotus Notes servers are administered by Central Computing.
  Lotus Notes is the preferred (and recommended) email service for administrative, staff, and faculty usage.

  Eudora
  Responsible Person: Scott Pham
  Scope: COE, All Departments
  Hardware/Software: Eudora Clients
  Student/Faculty Impact: Administration, Staff, and Faculty
  Policy/Guidelines: It is the responsibility of ECS to install and configure the Eudora client. Department technicians also assist with email client installations.

  MS Outlook, Mozilla, and Other Email Clients
  Responsible Person(s): ECS Staff
  Scope: COE, All Departments
  Hardware/Software: Eudora Clients, Mozilla, Netscape, and MS Outlook
  Student/Faculty Impact: Administration, Staff, and Faculty
  Policy/Guidelines: It is the responsibility of ECS to install and configure Email clients in the absence of department technicians or in instances where special problems are encountered.

a-2.11. Faculty and Staff Desktop Support
Responsible Person(s): Department Technicians, Ben Rashid, ECS Staff
Scope: COE, All Departments
Hardware/Software: Microsoft Windows - All Versions
Student/Faculty Impact: Administration, Staff, and Faculty
Policy/Guidelines: ECS provides front-line support to the Dean and Graduate Studies, and CEE. The other departments in the COE have department-level technician support. ECS provides secondary-level support to every department. Secondary-level support consists of answering any technical questions posed by the faculty or department technician thus ensuring the successful implementation of the department's operation. Any ECS person may be called upon to assist.

a-2.12. Backups
Responsible Person(s): ECS Staff  
Scope: COE, All Departments  
Hardware/Software: Intel Architecture, Sun Sparc, Network Devices, Core Servers, File Servers, and Domain Controllers / Linux, Solaris, Windows 2000, Databases, Student Accounts, and Research data  
Student/Faculty Impact: Administrative, Faculty, Staff, and Students  
Policy/Guidelines: Kindness Israel performs daily and weekly backups on the COE core servers, databases, and Linux student accounts. Solaris student accounts are the responsibility of William Black, Scott Pham is responsible for the academic laboratory domain controllers and related student accounts, and Ben Rashid is responsible for the administrative domain controllers and file servers. In the Process of Hiring is responsible for the COE WWW server and related accounts. Sigurd Meldal performs daily backups on the CMPE administrative accounts. The other COE departments perform no regular or scheduled backups.

a-2.13. Anti-Virus and Security  
Responsible Person(s): Scott Pham, Kindness Israel, William Black  
Scope: COE, All Departments  
Hardware/Software: Intel Architecture / Microsoft Windows - All Versions  
Student/Faculty Impact: Administrative, Faculty, Staff, and Students  
Policy/Guidelines: The COE purchases McAfee AntiVirus software for distribution to the faculty and staff. ECS oversees and ensures that antivirus software updates are distributed to the COE department technicians for installation.

Security is primarily a subdivision of networking. The primary network defense is the COE firewall. Unfortunately, an inordinate amount of time is required to track-down abusers of the system. The security and best practices of the CSU are posted on the ECS Networking Web Page.

a-2.14. Software  
Microsoft CD Library and Distribution Server (ecs_apps)  
    Responsible Person: Scott Pham  
    Scope: COE, All Departments  
    Hardware/Software: MS Operating Systems, MS Office Suite  
    Student/Faculty Impact: Faculty, Technical Staff  
    Policy/Guidelines: The COE purchases a minimal number of distribution disks and licenses. The original CDs are archived and the images are distributed via Juanita's share server which can be accessed using a password and shared link. All department technicians use the share server daily. Certain bootable CDs must be replicated from the original CDs. Juanita performs the CD creation task for the COE.

Software Licenses  
    Responsible Person: Scott Pham  
    Scope: Faculty  
    Hardware/Software: Matlab, McAfee, ASAP Contracts  
    Student/Faculty Impact: Faculty and Students
Policy/Guidelines: ECS obtains and maintains the software licenses. EE also has an extended version of Matlab applications. Matlab and AutoCad are distributed to the department technicians via the ECS application server along with non-licensed software.

a-2.15. COE and ECS Department Purchases
Responsible Person(s): Kindness Israel, Scott Pham, and Ben Rashid
Scope: COE, ECS, All Departments
Hardware/Software: All computer hardware and software necessary to maintain the COE and ECS departments.
Student/Faculty Impact: Administrative, Faculty, and Staff
Policy/Guidelines: In addition to the COE Dean and Graduate Studies office purchases, ECS also researches and advises faculty members and technical staff about where and how to obtain the most cost efficient hardware and software.

a-2.16. Staff Training
Responsible Person(s): ECS Staff
Scope: Department Technicians
Hardware/Software: Intel and Sun / Microsoft Windows - All Versions, Linux, Sun Solaris
Student/Faculty Impact: Department Technicians
Policy/Guidelines: ECS has conducted classes for department technicians and maintains a mailing list for the purpose of keeping the technical staff informed of upcoming relevant events and special classes. By and large, a constant dialog and exchange of information is conducted between ECS and the technical staff.

a-2.17. Walk-In and Phone Support
Responsible Person(s): ECS Staff
Scope: COE, All Departments
Hardware/Software: All.
Student/Faculty Impact: Faculty, Technical, and Administrative Staff
Policy/Guidelines: ECS has an "open door" policy toward questions and eagerly looks forward to helping any COE faculty, staff, or student solve their computer or network problems.

a-2.18. Special Projects
Responsible Person: Kindness Israel
Scope: Students
Hardware/Software: Linux / Linux
Student/Faculty Impact: Students
Policy/Guidelines: Kindness Israel is the sponsor of the San Jose State Linux Users Group (SJSULUG). The club meets in E239 and has built several Linux clusters for research projects.

a-2.19. Student Organization Rooms
Responsible Person(s): Department Technicians
Scope: Departments
Hardware/Software: Intel / Microsoft Operating Systems - All Versions.
Student/Faculty Impact: Faculty, Students
Policy/Guidelines: The department club rooms are maintained by the departments. ECS provides network access.

a-2.20. Development of Disaster Recovery Documentation/FAQs
Responsible Person(s): ECS Staff
Scope: COE, ECS
Hardware/Software: All
Student/Faculty Impact: ECS Staff
Policy/Guidelines: Every ECS staff member is required to produce a disaster recovery booklet or spreadsheet of computers under their care. The documentation contains the name, type, location, and any pertinent information about how to login, shutdown, and restart the machine and its primary services. ECS also maintains several

a-2.21. Software Development
Responsible Person(s): Kindness Israel, Student Assistant
Scope: Administration, Faculty, Staff
Hardware/Software: Linux on Intel Architecture / Advisor, Room Scheduler, Monitor Software, OpenTrak, Student Data, Login Accounts, COE Databases, Department Queries, UNIX Scripts.
Student/Faculty Impact: Administrative, Faculty, Students
Policy/Guidelines: ECS has traditionally employed a student programmer for the purpose of providing direct access to SIS and PeopleSoft data. These data have been used to create a myriad number of products and solve complex IT problems.

a-2.22. Inventory and Resources
Responsible Person: Kindness Israel
Scope: COE Building
Hardware/Software: Annual Inventory conducted with FD&O
Student/Faculty Impact: N/A
Policy/Guidelines: FD&O requires that all computer items and network equipment costing more than $5,000 be accountable. Overall, ECS is directly responsible for over a million dollars worth of computer and network equipment.

a-2.23. Computer and Printer Repair
Responsible Person(s): ECS Staff, Student Assistant
Scope: Academic Laboratories, Administrative Offices, Core Servers, ECS Desktops
Hardware/Software: Core Servers, Laboratory Computers, Administrative Computers, Sun Servers, Printers
Student/Faculty Impact: Undergraduate Students, Faculty, Administrative Staff
Policy/Guidelines: The academic laboratories are the sole responsibility of ECS. The Dean's office and Graduate Studies office are the sole responsibility of ECS. ECS also maintains the software and hardware contracts for the Cadence Solaris laboratories but
does not purchase the licenses. Printers are generally cleaned and repaired locally by Ben Rashid or a student assistant.

b. Student Advising and Services

b-1. College of Engineering Units

The College of Engineering has two college-level student advising and supporting units: the Engineering Student Advising Center and the MESA Engineering Program.

The Engineering Advising Center was established in Spring 2005. The Center provides the following services to all engineering students:

- General Education requirement advising
- Monitoring and advising of students on probation
- Study skills workshops
- New Student Advising

The goal of the MESA Engineering Program is to increase the number of competent and qualified graduates entering the engineering profession from groups with low eligibility rates in college admissions. The program provides the following services: student study center, Academic Excellence Workshops, professional development workshops, freshmen orientation, career advising, and supports to student organizations.

c. Design and Fabrication Services

College of Engineering Central Shop is staffed by two full-time mechanics and several part-time student assistants. Central Shop provides a variety of services in the shops, laboratories, and related areas in support of the teaching and research needs of the instructional programs. The responsibilities of the central shop are maintenance and repair of mechanical equipment, design, fabrication and installation of teaching devices and apparatus for instructional, student projects, and faculty research needs, and providing guidance to faculty and students on machine operations.