Background Information Relative to the Department

A. General Information

Office Location:
Engineering Building, corner of San Fernando & 7th Streets
San Jose, 4th Floor – Room 485

Office Hours
8:00 AM to 12:00 PM and 1:00 PM to 5:00 PM
Telephone
(408) 924-3301
Fax
(408) 924-4040

E-mail Address
isengr@email.sjsu.edu
ise@email.sjsu.edu

Web Site Address
http://www.engr.sjsu.edu/ise/

Chair
Dr. Louis Freund

Undergraduate Program Director and Major Advisor
Dr. Yasser Dessouky

Graduate Program Director and Major Advisor
Dr. Jacob Tsao

Graduate Program Area Advisors

Dr. Yasser Dessouky
Production Systems and Simulation

Dr. Louis Freund
Ergonomics and Human Factor Engineering

Dr. Kevin Corker
Human Computers Interface

Dr. Jacob Tsao
Operations Research and Quality Assurance
B. Department’s Mission, Goals and Commitment

Industrial & Systems Engineering Mission
The mission of the ISE program is to serve society with emphasis on the manufacturing and service sectors by:

- providing undergraduate and graduate Industrial and Systems Engineering education that prepares students to effectively apply engineering knowledge to the evaluation, design, and operation of complex industrial, service, and governmental systems comprised of people, equipment, and supplies through the application of modeling, measurement, and economic methods.

- contributing to the enrichment of the profession and to the development of knowledge through faculty leadership, scholarship and professional practice.

- meeting the needs of working professionals for continuing education in the fields of operations research, advanced statistical methods, ergonomics and human factors, production planning and control and related topics.

C. Alignment with College’s Mission

The ISE department’s goals focus on imparting the ISE students the basic, professional, research and leadership education and are thus consistent with the college’s mission. The ISE department’s mission is also consistent with the department’s goals. The faculty members aggressively engage themselves in their own professional development by making contributions to the research literature, making research paper presentations at national and international level conferences, developing new courses and course material to meet the state-of-the-art needs of the profession, and offering their services in continuing education type of activities. The faculty with their well-rounded professional development helps the department to achieve the goals of the department.

D. Department Finance

The following dollar figures represent 2005-2006 budget of the department:

Financial Resources
General Fund
- Faculty, Staff and Student Salaries $637,908.00
- OE & E Expenses $36,201.87
- Fund from Extended Studies $92,761.00
- Contracts and Grants $1,969,053.00
- Donation and Gift $0.00

Instructional Support
- Faculty Development $0.00
Sabbatical Leave $0.00
(No FT Faculty on leave for this year)
Other $0.00

Please note that the fund from external studies and lab tuition fees were used to acquire laptops, software, and other lab equipment needed to support the program. In addition, the fund from external studies was used to replace some faculty members’ office furniture (to conform to ergonomic standards in workplace and PCs in year 2005-2006. The faculty travel was supported from contracts and grants.

E. Admission and Graduation Requirements

Admission Requirements

1. Transfer Admission Criteria and Procedures
   Applicants qualify for admission as transfer students if they have a GPA of 2.0 or better in all transferable units attempted, were in good standing at the last college or university attended, and:

   • meet current freshman admission requirements, or
   • met freshman requirements at time of high school graduation, and have been in continuous attendance at an accredited college since high school graduation, or
   • met freshman requirements except for subject requirements at time of high school graduation, been in continuous attendance at an accredited college since high school graduation, and have made up missing subject requirements through college coursework, or
   • have completed at least 60 transferable semester units and have 30 units of general education, including one course in English composition, one speech course, and a math course with intermediate algebra as a prerequisite, with grades of C or higher.

   Other Institutions
   Table B-1 shows the history of transfer engineering student statistics for the last six years.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Number of Transfer Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2004</td>
<td>198</td>
</tr>
<tr>
<td>Fall 2003</td>
<td>168</td>
</tr>
<tr>
<td>Fall 2002</td>
<td>257</td>
</tr>
<tr>
<td>Fall 2001</td>
<td>309</td>
</tr>
<tr>
<td>Fall 2000</td>
<td>314</td>
</tr>
<tr>
<td>Fall 1999</td>
<td>339</td>
</tr>
</tbody>
</table>

   Table B-1. History of Transfer Engineering Students
Graduate Students

Basic Admission Requirements

1. A bachelor's degree in Industrial or Systems Engineering from an ABET-accredited University;
   - OR -
2. A bachelor's degree in Engineering plus courses specified by the Graduate Advisor to prepare for graduate work in the Department;
   - OR -
3. A bachelor's degree in a related field plus successful completion of the Engineer-in-Training (EIT) exam plus courses specified by the Graduate Advisor to prepare for graduate work in the Department.

Requirements for Admission to Classified Standing

Applicants for classified standing will ordinarily be expected to have completed work for the BS degree in industrial engineering (or its equivalent) at San Jose State University or at another university with an accredited curriculum, with a grade point average of 3.0 (B) or better in the upper division work.

Graduation Requirements

Undergraduate Students

1. All engineering students must submit a major form to their Department as part of their application for graduation. The major form lists the courses needed to satisfy B.S. major degree requirements. The department advisor and Department Chair must approve all major forms. Completion of all courses on the major form is verified by the Records Office. The major forms have all the required courses preprinted on the form. Elective courses, mathematics, and basic science courses are filled in by the student. All elective courses and courses in mathematics and basic science must be approved by the Department. A sample major form is shown in Exhibit II-4.
2. SJSU offers all of its engineering degree programs under review in the mode of traditional on-campus instruction.
3. The University requires an average GPA of at least 2.0 in all courses attempted. The College of Engineering requires a minimum overall GPA of 2.0 in all required courses and a minimum overall GPA of 2.0 in all required courses taken at San Jose State University.

Graduate Students

Students who have been admitted to candidacy for master’s degrees in engineering must thereafter maintain grade point averages of 3.0 (“B”) or better in all work taken in
the graduate program, and in the minimum 30 semester units of approved graduate work.

All students are required to complete a thesis or pass comprehensive examination covering either their graduate coursework or major project.

The general requirements for the MS - Industrial and Systems engineering include completion of at least 30 semester hours of approved work. The course requirements consist of for core courses, four courses in a specialty area, two electives and a thesis or comprehensive-exam/project. Four specialty areas offered are: Systems and Information Modeling, Production and Quality Assurance, Human Factors, and Supply Chain Engineering.

Admission to Conditionally Classified Standing

If student's preparation for advanced graduate work is inadequate, he may be admitted to conditionally classified standing, and be required to take necessary preparatory courses before becoming classified. Such courses will not ordinarily count as part of the Master's degree program requirements. Students who are admitted on a conditionally classified basis must complete a "change in graduate objective" petition as early as possible upon completion of specified conditions.

F. Department Advisory Council (DAC)

The Department Advisory Council has been very active over the past 6 years. Membership is for a two-year, renewable term. Members have included professional leaders from many significant companies in the area. The DAC has met generally twice a year with a 4-hour agenda planned for each meeting. DAC members have been especially focused on assisting the Department in developing an assessment tool and interview process for outgoing Seniors. They have conducted these Senior Exit Surveys and interviews over the past 4 years. In addition, DAC members have been working on developing information about the success of ISE and SJSU graduates in their companies relative to the graduates of other Colleges and Universities.

The current membership of the ISE 2004 – 2006 DAC is presented in Table B.2. This Council met most recently on October 25th, 2004 and April 29th, 2005. Meeting agendas and minutes are distributed to each DAC member. Previous DAC membership lists and meeting minutes are also available upon request.
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Professional Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolyn Brown</td>
<td>Santa Clara Valley Medical Center</td>
<td>Director, Performance and Outcomes Management</td>
</tr>
<tr>
<td>Peter Cocotas</td>
<td>PhF Specialists</td>
<td>President</td>
</tr>
<tr>
<td>Lila Dormishian (DAC Chair)</td>
<td>Foxconn, NSG Technologies</td>
<td>Director, World Wide Supply Chain Management</td>
</tr>
<tr>
<td>Dave Engelbert</td>
<td>NASA</td>
<td></td>
</tr>
<tr>
<td>Keyvan Esfarjani</td>
<td>Intel Corporation</td>
<td>Fab MFG MGR, Dir of Operations</td>
</tr>
<tr>
<td>José Flahaux*</td>
<td>SanDisk Corp</td>
<td>Sr. Vice President, Worldwide Operations</td>
</tr>
<tr>
<td>Howard Fuller, Ph.D.</td>
<td>Fuller Jones &amp; Associates</td>
<td>President</td>
</tr>
<tr>
<td>James G Holt</td>
<td>United Defense</td>
<td>Manager, Systems Engineering</td>
</tr>
<tr>
<td>Kevin Horgan</td>
<td>UPS</td>
<td>District Industrial Engineering Manager, North California District</td>
</tr>
<tr>
<td>Kim D. Hyland</td>
<td>Solectron</td>
<td>Director of Process Integration Solectron Technical Center</td>
</tr>
<tr>
<td>Rajiv Kapur, Ph.D.</td>
<td>Cura Consulting Solutions</td>
<td>President</td>
</tr>
<tr>
<td>Marc Komrosky</td>
<td>ISE Unlimited</td>
<td>Principal</td>
</tr>
<tr>
<td>Mike Parcella</td>
<td>Applied Materials</td>
<td>Managing Director-Global Materials Operations</td>
</tr>
<tr>
<td>Neal Woods</td>
<td>Cisco Systems</td>
<td>VP, Consumer Technology Group Manufacturing Operations</td>
</tr>
</tbody>
</table>

*Term begins Fall 2005 semester

ISE DAC Faculty / Staff Members (2004 – 2006)

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Professional Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin Corker</td>
<td>SJSU – ISE</td>
<td>Professor</td>
</tr>
<tr>
<td>Yasser Dessouky</td>
<td>SJSU – ISE</td>
<td>Professor (as of AY 2005/6)</td>
</tr>
<tr>
<td>Louis Freund</td>
<td>SJSU – ISE</td>
<td>Professor and Chair</td>
</tr>
<tr>
<td>Minnie Patel</td>
<td>SJSU – ISE</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Jacob Tsao</td>
<td>SJSU – ISE</td>
<td>Professor (as of AY 2005/6)</td>
</tr>
<tr>
<td>Lina Melkonian (Adjunct)</td>
<td>SJSU – College of Engineering</td>
<td>Development Officer</td>
</tr>
</tbody>
</table>

Formerly – Director, SJSU Career Center

Table B.2 – Current ISE DAC Industry Members (2004 – 2006)