College of Applied Science & Technology

College Mission and Goals

Mission

The vision of the College of Applied Science & Technology is to be the leader in the state in technology and technology-related programs through service to our students and the businesses and industries in our region. The mission of the College of Applied Science & Technology is to serve the citizens of northern Utah and the State of Utah by:

- Preparing students for employment upon graduation and ensuring that they are productive.
- Engaging in scholarly activities that expand the technological education our students receive and provide a service to business and industry.
- Utilizing the school’s resources and faculty expertise to benefit students, business, industry, education, government, and society in general.

Goals

- Evaluate the viability of our Mechanical Engineering Technology (MET) and pre-engineering programs to see if they should be retained, and if so, what can be done to make them stronger.
- Continue our program assessment efforts including collecting the necessary data and making program improvements based on that data.

University Program/Accreditation Review

The following table indicates the schedule of University Program/Accreditation Review for each program:

Standard 2: Table XVII. College of Applied Science and Technology University Program/Accreditation Review.

<table>
<thead>
<tr>
<th>Department/Program</th>
<th>University Program/Accreditation Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Computer and Electronics Engineering</td>
<td>2003-04  2009-10</td>
</tr>
<tr>
<td>Department of Computer Science</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Department of Manufacturing and Mechanical Engineering Technology</td>
<td>2003-04  2009-10</td>
</tr>
<tr>
<td>Manufacturing Engineering Technology</td>
<td>2003-04  2009-10</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td>2003-04  2009-10</td>
</tr>
<tr>
<td>Construction Management Technology</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Computer and Design Graphics Technology</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Department Sales and Service Technology</td>
<td></td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Interior Design</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Sales and Merchandising/Technical Sales</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Department Telecommunications and Business Education</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Business Education</td>
<td>2003-04  2008-09</td>
</tr>
<tr>
<td>Telecommunications Administration</td>
<td>2003-04  2008-09</td>
</tr>
</tbody>
</table>
• Continue to expand our online course offerings, particularly in Computer Science.

• Integrate a welding option into our Manufacturing Engineering Technology (MfET) program and work with Utah State University to transfer their students to our program.

• Continue to look at possible new programs for the college, particularly in light of the new Utah College of Applied Technology

Student Statistics

The following table shows enrollment and degrees for 2002-03:

Standard 2: Table XVIII. College of Applied Science & Technology Student Statistics.

<table>
<thead>
<tr>
<th>Department/Programs</th>
<th>Fall 2002</th>
<th>2002-03</th>
<th>2002-03 Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enrollment</td>
<td>Annual FTE</td>
<td>Associate</td>
</tr>
<tr>
<td>Computer and Electronics Engineering Technology</td>
<td>305</td>
<td>264</td>
<td>11</td>
</tr>
<tr>
<td>Computer Science</td>
<td>801</td>
<td>433</td>
<td>30</td>
</tr>
<tr>
<td>Manufacturing &amp; Mechanical Engineering Technology</td>
<td>650</td>
<td>218</td>
<td>32</td>
</tr>
<tr>
<td>Sales and Service Technology</td>
<td>689</td>
<td>768</td>
<td>42</td>
</tr>
<tr>
<td>Telecommunications and Business Education</td>
<td>142</td>
<td>641</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>2,587</td>
<td>2,143</td>
<td>129</td>
</tr>
</tbody>
</table>

Faculty/Staff Statistics

The following table shows the number of full- and part-time faculty and staff:

Standard 2: Table XIX. College of Applied Science and Technology Faculty/Staff.

<table>
<thead>
<tr>
<th>Department/Programs</th>
<th>Full-Time Faculty</th>
<th>Part-Time Faculty</th>
<th>Full-Time Staff</th>
<th>Part-Time Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and Electronics Engineering Technology</td>
<td>7</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>14</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Engineering Technology</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Construction Management Technology</td>
<td>3</td>
<td>11</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Computer and Design Graphics Technology</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>9</td>
<td>6</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Interior Design</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Technical Sales</td>
<td>7</td>
<td>8</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Telecommunications Business Education</td>
<td>6</td>
<td>18</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>63</td>
<td>17</td>
<td>10</td>
</tr>
</tbody>
</table>
(UCAT), which could include the loss of some associate degrees.

- Work with representatives from UCAT to facilitate the transfer of their students who receive an A.A.T. degree in Information Technology into our B.A.T. degree program.

- Continue to seek accreditation where available from programs currently lacking accreditation.

- Have a successful Technology Accreditation Commission of Accreditation Board of Engineering Technology visit for our engineering technology programs in fall 2003.

- Get the programs running at WSU Davis and ensure that they are successful.

**College-Wide Student Learning Outcomes**

Graduates from the College of Applied Science & Technology will:

- Acquire the skills and knowledge to prepare them for employment upon graduation

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**Faculty Evaluation**

The following table shows frequency, source of evidence and decision review of faculty by program. See Standard 4 for more specific information on faculty evaluation.

Faculty are also reviewed by their college and/or department. We have combined promotion and tenure into a single policy for the whole college with a common set of criteria for both. This way, we are able to combine both the evaluation for promotion and the evaluation for tenure and do these simultaneously where applicable.

Mentoring and professional development throughout the college includes peer evaluation committees, yearly retreat, mentoring by an experienced faculty member, evaluation through student questionnaires, and evaluation by a department chair.

We use a standardized student evaluation form (the CIEQ) for all classes within the college. We purchase this form, which has been tested for reliability and validity, from Comprehensive Data Evaluation Services.

### Standard 2: Table XX. College of Applied Science and Technology Faculty Review by College/Department.

<table>
<thead>
<tr>
<th>Faculty Status</th>
<th>How Often</th>
<th>Source of Evidence Status</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Dean/ Chair</td>
<td>Peer</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Departments</td>
<td>Every 3 yrs.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tenure Track</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Departments</td>
<td>Annual</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Term/Contract</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Departments</td>
<td>Each Term</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Part Time</td>
<td>Each Semester</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
- Gain an appropriate mastery of the knowledge, techniques, skills, and tools of their discipline
- Understand the need for and develop the ability to engage in lifelong learning
- Develop the ability to function effectively on teams

### Departments/Programs

- Computer and Electronics Engineering Technology
- Computer Science
- Manufacturing and Mechanical Engineering Technology
  - Manufacturing Engineering Technology
  - Mechanical Engineering Technology

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**Advising**

The College of Applied Science and Technology has one full-time advisor and the Computer Science Department has one full-time advisor. We provide multiple advising resources for students and advisors.

In addition to advising services, we provide math tutoring for students in our college, which is used extensively by our students and located in one of our buildings. We also work with the Communication Department to provide a special section of Interpersonal and Small Group Communication with special emphasis on workplace communications.

The advising content covered is outlined in Table XXI on page 57. The following table shows the advising resources available to students and advisors.

**Standard 2: Table XXI. College of Applied Science and Technology Advising Resources.**

<table>
<thead>
<tr>
<th>Department/Programs</th>
<th>SST</th>
<th>AST</th>
<th>IDT</th>
<th>TBE</th>
<th>CEET</th>
<th>MFET</th>
<th>MET</th>
<th>CMT</th>
<th>CS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department/Program Orientations</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Course Embedded Advising</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Advising (Faculty, Staff, Students)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Electronic Advising (Interactive Advising Web Page)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Advising Forms (Contracts, Worksheets, Handbooks)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Feedback solicited from students on advising effectiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>Advisor Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisor Training Sessions</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassigned Time</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Student Records through the Student Information System</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Defined Advisor Responsibilities (Policies and Procedures)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Key:**

- AST: Automotive Service Technology
- CEET: Computer and Electronics Engineering Technology
- CS: Computer Science
- IDT: Interior Design
- MFET: Manufacturing and Mechanical Engineering Technology
- MET: Mechanical Engineering Technology
- SST: Sales and Service Technology
- TBE: Telecommunications and Business Education
### Standard 2: Table XXII. College of Applied Science and Technology Advising Content by Department.

<table>
<thead>
<tr>
<th></th>
<th>Chair/ Program Director</th>
<th>Faculty</th>
<th>Staff Advisor (College/ Department*)</th>
<th>Secretary</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Declaration in (SIS) Student Information System</strong></td>
<td>TBE</td>
<td>CEE, CS, SST, MET, CMT, IDT, AST, TBE, M IET</td>
<td>CEE, AST, IDT, CMT, SST, MET, TBE, M IET</td>
<td>One time</td>
<td></td>
</tr>
<tr>
<td><strong>Program Planning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Admissions Criteria to Restricted Enrollment Programs</td>
<td>N / A</td>
<td>N / A</td>
<td>N / A</td>
<td>N / A</td>
<td>N / A</td>
</tr>
<tr>
<td>B. General Education and Other Degree Requirements</td>
<td>SST, CEE, MET, TBE</td>
<td>SST, M ET, M IET, CMT, IDT, AST, TBE</td>
<td>CS</td>
<td>CM T, SST, MET, TBE, M IET</td>
<td>As needed</td>
</tr>
<tr>
<td>C. Major/Minor Program (Monitoring Progress, Degree Requirements, Transfer Credits, Course Selection, Electives, Internships, Practicums and Clinicals)</td>
<td>CEE, SST, M ET, TBE, M IET</td>
<td>SST, M ET, M IET, CMT, IDT, AST, TBE</td>
<td>CS</td>
<td>As needed</td>
<td></td>
</tr>
<tr>
<td><strong>Scholarships (Department and Programs)</strong></td>
<td>CEE, SST, CS, TBE, M IET</td>
<td>SST, M ET, M IET, CMT, IDT, AST, TBE</td>
<td>CEE, SST, M ET, CMT, IDT, AST, TBE, M IET</td>
<td>Annually</td>
<td></td>
</tr>
<tr>
<td><strong>Referrals to University Resources and Services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Employment Advising</strong></td>
<td>CEE, TBE, SST</td>
<td>SST, M ET, M IET, CMT, IDT, AS, TBE</td>
<td>CEE, C S, SST, MET, CMT, IDT, AST, TBE, M IET</td>
<td>As needed</td>
<td></td>
</tr>
<tr>
<td><strong>Graduation Clearance in the Student Information System (SIS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Prior to graduation</td>
</tr>
</tbody>
</table>

* College advisor advises students in all departments/programs with exception of Computer Science. Department advisor advises all students, in all programs, in the Department of Computer Science.

**Key:**
- M ET - Mechanical Engineering
- CS - Computer Science
- SST - Sales and Service Technology
- CS - Computer Science
- M FET - Manufacturing Engineering Technology
- IDT - Interior Design Technology
- CMT - Construction Management Technology
- TBE - Telecommunications and Business Education
- AST - Automotive Technology
- Parson Construction Management Technology
- Computer and Design Graphics Technology
- Sales and Service Technology
- Automotive Technology/Automotive Service Technology
- Interior Design Technology
- Sales and Merchandising/Technical Sales
- Telecommunications and Business Education

Centers
- Center for Automotive Science and Technology
- Technology Assistance Center (TAC)

Degrees Offered
- Bachelor of Arts or Bachelor of Science
  - Business Education
  - Computer Science
  - Technical Sales
  - Telecommunications
- Bachelor of Science
  - Automotive Technology
  - Computer and Design Graphics Technology
  - Computer Engineering Technology
  - Construction Management Technology
  - Electronics Engineering Technology
  - Manufacturing Engineering Technology
  - Mechanical Engineering Technology
- Bachelor of Arts or Bachelor of Science composite teaching degree
  - Business Education
- Associate of Applied Science
  - Automotive Service Technology
  - Business Systems Technologies
  - Computer and Design Graphics Technology
  - Computer Engineering Technology
  - Computer Science

Budget
In addition to legislative appropriations, we are supported by endowments, externally funded grants and gifts, and course fees.

The information that follows describes the departments, programs, and centers within the College of Applied Science & Technology.

Computer and Electronics Engineering Technology (CEET)

I. Purpose/Description

Mission
Our mission is to provide applications-oriented educational programs, which produce graduates who are capable of making significant professional contributions. We prepare students to incorporate computer and electronics systems in solving science, engineering, technology, and manufacturing problems.

Goals/Objectives
We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included:

- Double the number of graduates by 2004
- Establish partnerships with industry to create an environment for the promotion
and advancement of applied computer and electronics technology

- Maintain leading edge curriculum, which meets the needs of employers
- Take responsibility for the "whole person" and be involved in helping students obtain related work while attending the program and full-time employment upon graduation
- Attain accreditation for the CET BS degree and maintain accreditation for the EET B.S. degree

### Student Learning Outcomes Assessment and Planning:

- **Outcomes Results:** We have developed a set of student learning outcomes assessments for each degree in our program. These include outcomes such as: ability to specify, design, build, install, program, operate, troubleshoot, analyze, and modify electronic systems, automated test, and manufacturing control systems; demonstrate effective communication, project management, and leadership skills; and show a well-developed sense of work ethics and personal discipline. Our assessment program is designed as a simple "problem identification, evaluation, change, and result" continuous loop.

- **Changes Based on Outcomes Results** included adding evening and online classes, adding a new A.A.S. and B.S. degree in Computer Engineering Technology, encouraging students to seek and helping students to find engineering-related work while still in school, and adding new courses in writing, project management, and senior projects.

### III. Strengths and Challenges

**Strengths include:**

- Clearly identified student learning outcomes and goals
- Clearly defined advising responsibilities

**Challenges include:**

- Measuring student outcomes that are difficult to judge
- Maintaining levels of service with increasing student population
- Providing sufficient laboratory space and test equipment

### IV. Next Steps/ Action Items

- Find or develop additional instruments for directly measuring student learning objectives
- Conduct a survey to ensure students are adequately advised
- Organize and conduct training sessions for adjuncts

### Computer Science (CS)

#### I. Purpose/Description

**Mission**

Our mission is to prepare individuals to engineer, design, develop, support, and maintain technical software applications and integrated computer-based systems. We instill a solid understanding of the principles of computer science and the related skills that enables students to be productive in developing software and networked computer systems of superior quality and robustness.
We run a program at Salt Lake Community College (SLCC) where we offer the last two years of the baccalaureate degree at that campus in the evenings.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002-03, our goals included:

- Become accredited by the Accreditation Board of Engineering Technology
- Increased space including labs and classrooms
- Hire more faculty generating a lower student/faculty ratio
- Increase service to programs at WSU Davis and in Salt Lake City

Student Learning Outcomes

Assessment and Planning:

- **Outcomes Results:** We have developed a set of student learning outcomes assessments including: demonstrated abilities in reading manuals and technical literature, finding and understanding sources of help, and developing problem-solving, critical thinking, and communication skills.

- **Changes Based on Outcomes Results** included revising associate degree curriculum and developing a department committee to oversee course content, course changes and modifications, textbook selection, and coordination with part-time faculty.

Specialized Facilities/Equipment

We maintain and use specialized computer labs and software.

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II. Significant Changes Since 1994

Significant changes include:

- Prepared assessment tools
- Added full-time staff member to coordinate SLCC program
- Increased faculty

III. Strengths and Challenges

Strengths include:

- Well-trained, dedicated faculty with strong backgrounds in business and industry
- Scheduling flexibility with evening and online courses
- Approachable, involved advisor

Challenges include:

- Attracting and retaining qualified instructors
- Completing and implementing assessment processes

IV. Next Steps/Action Items

- Add faculty/staff to offset large enrollments
- Increase professional staff to support labs
- Seek additional funding from industry and charitable foundations
- Strengthen outcomes assessment processes
- Seek national accreditation for Computer Science program from ABET
- Seek additional space on campus and/or move more classes to WSU Davis
- Work more effectively with advisory committee including implementation of a web-based communication system for ongoing discussion and feedback with faculty and committee members
Manufacturing Engineering Technology (MfET)

I. Purpose/Description

Mission

Our mission is to educate and prepare students with a broad technical foundation along with the communication and interpersonal skills which will enable them to demonstrate professional competence within the discipline. We strive to provide students with the knowledge and skills, through a blend of theory and hands-on applications, which will satisfy the needs of local and national industries.

We also offer an emphasis in Production and Inventory Control for students pursuing a Bachelor of Integrated Studies.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002-03, our goals included:

- Strive to continuously improve the program relative to its stated mission
- Promote excellence in teaching within the program
- Support faculty activities such as consulting, sabbaticals, and technical seminars that will keep the faculty technically current
- Strive to increase program enrollments by supporting the recruitment and retention activities of the department and college
- Strive to strengthen the relationship between the program and local industries by promoting a strong industrial advisory committee

Student Learning Outcomes

Assessment and Planning:

- Outcomes Results: For 2001-02 the MfET Program evaluated the following outcomes: effective technical communication skills, mastery of knowledge and technical skills, technical competency, the ability to function as a member of a project team with good problem-solving skills, and skills in quality assurance, process planning, scheduling, cost estimating, and project management using commercial computer applications. We used several instruments and measures to assess these outcomes, including alumni/employer surveys, faculty course evaluation and comments, oral surveys, normal course assessments and feedback from the MfET program Industrial Advisory Committee.

- Changes Based on Outcomes Results included changing course sequencing and adding quality courses.

Specialized Facilities/Equipment

We maintain and use, along with Mechanical Engineering Program, a CAD lab, a CNC shop, a manual machining shop, a casting lab, a welding shop, and a variety of other specialized shop areas and related equipment.

II. Significant Changes Since 1994

Significant changes include:

- Formalized outcomes assessment process
- Added more writing, oral presentation, and quality courses to curriculum
- Started offering classes later in the day to accommodate working students
III. Strengths and Challenges

Strengths include:

- Strong advising program for our students
- Well-seasoned faculty with broad industry experience
- Good facilities provided by donations from industry
- Excellent reputation among our peers and within industry across the nation.

Challenges include:

- Refining assessment process
- Keeping materials updated with changing technologies
- Sustaining program growth

IV. Next Steps/ Action Items

- Fully implement all new coursework changes
- Recruit students through faculty contacts in industry
- Replace equipment with donations from industry

Mechanical Engineering Technology (MET)

I. Purpose/Description

Mission

Our mission is to provide students a high quality undergraduate education emphasizing mechanical engineering fundamentals bolstered by practical experiences and preparing students for engineering- and technology-related professions, advanced education, and lifelong learning. The program stresses applied mechanical engineering principles, laboratory testing and experimentation, computer applications of design and analysis, and the application of mathematics and the physical sciences to the solution of technological problems.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included:

- Provide students with a high quality undergraduate education in mechanical engineering
- Prepare students for engineering technology related professions, advanced education, and lifelong learning

Student Learning Outcomes

Assessment and Planning:

- Outcomes Results: For 2001-02, the MET Program looked at the outcome "identify, analyze and solve technical problems" using a special assessment exam given to graduating seniors. This exam consisted of a battery of problems, prepared by the MET faculty, from three core MET subjects areas. All other outcomes were assessed during the 2001-02 academic year using an alumni survey. In the spring semester of 2002, we began using a course loop action instrument to assess outcomes.

- Changes Based on Outcomes Results included installing computer-based laboratory equipment in all classrooms and adding lab equipment to the thermal science labs.

Specialized Facilities/Equipment

We maintain and use, along with the Manufacturing Engineering Program, a computer-aided drafting lab, a CNC shop, a manual machining shop, a casting lab, a welding shop, and a variety of other specialized shop areas and related equipment.
II. Significant Changes Since 1994

Significant changes include:

- Developed more specific learning outcomes
- Added communication courses to curriculum
- Increased library collection

III. Strengths and Challenges

Strengths include:

- Well-educated faculty with broad industry experience
- Small class size
- Program coordinator who provides advising

Challenges include:

- Improving faculty attitudes toward assessment
- Compelling students to seek advising
- Finding funding to increase laboratory equipment
- Declining enrollments

IV. Next Steps/Action Items

- Implement and refine assessment training and tools
- Contact MET majors annually to make advising appointments
- Identify potential sources of external funding
- Formulate and implement a plan to curb student dropout rates

Parson Construction Management Technology (CMT)

I. Purpose/Description

Mission

Our mission is to provide a unique interdisciplinary program committed to educating future leaders in the construction profession. This commitment includes the integration of the engineering and construction principles required by graduates to compete in today's international construction community. This commitment embraces the notion of instilling both a short term and a long-term penchant for education and the process of learning. As a professional program within Weber State University, the Construction Management program is committed to upholding the comprehensive nature of the educational experience offered in the university environment. Students can complete their undergraduate education with useful job related tools, but of equal importance, they will acquire the desire to learn and continually develop as individuals, as employee or employer, and as productive members of society.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included:

- Educate future leaders in the construction profession
- Uphold the comprehensive nature of the educational experience offered in the university environment

Student Learning Outcomes

Assessment and Planning:

- Outcomes Results: We have developed a comprehensive set of student learning out-
comes including demonstrating effective technical communication skills, utilizing modern instruments, evaluating materials and methods, utilizing modern survey methods, and estimating material quantities and costs. We use a variety of exams, surveys, and senior projects to assess these outcomes.

- **Changes Based on Outcomes Results** included re-evaluating course content and modifying curriculum to meet national exam content.

### II. Significant Changes Since 1994

Significant changes include:

- Regents’ approval of the A.A.S. and B.S. degrees
- Course offerings at SLCC
- Evening program at SLCC where we provide the last two years of the baccalaureate degree.

### III. Strengths and Challenges

**Strengths include:**

- Formal assessment process flowing from mission statement

**Challenges include:**

- Tracking graduated students and their employment
- Attracting and retaining qualified instructors to keep up with increasing enrollment

### IV. Next Steps/ Action Items

- Retain current faculty and add faculty positions
- Seek additional industry funding
- Create database to track graduating students

### Computer and Design Graphics Technology (CDGT)

#### I. Purpose/Description

**Mission**

Our mission is to educate and prepare students with a broad technical foundation along with the communication and interpersonal skills which will enable them to demonstrate professional competence within the discipline. We provide students with the knowledge and skills, through a blend of theory and hands-on applications, which will satisfy the needs of both local and national employers.

**Goals/Objectives**

We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included:

- Provide a learning environment that will accomplish the stated goals of the program.
III. Strengths and Challenges

Strengths include:

- Solid plan of evaluation and student learning outcomes
- Very good laboratories and equipment primarily because of donations from industry, grants, and federal funds

Challenges include:

- Developing and refining evaluation instruments
- Keeping pace with changing technology in laboratory equipment

IV. Next Steps/Action Items

- Hire faculty member to teach upper-division courses
- Seek accreditation by nationally recognized agent
- Develop partnerships with architecture and engineering firms

Automotive Technology/Automotive Service Technology (AST)

I. Purpose/Description

Mission

Our mission is to prepare students for professional careers in service operations, fleet management, and technical support activities with an emphasis on development of technical competence and interpersonal skills.

We offer a wide array of in-service courses and special activities, including full-time regional

II. Significant Changes Since 1994

Significant changes include:

- Added B.S. degree
- Remodeled classrooms
- Added one full-time faculty member
training centers for Daimler Chrysler, General Motors, and Toyota within our automotive building. We also have a collision repair and painting workshop for visiting students and faculty from Japan Automotive Engineering College in Tokyo. We also sponsor the Weber State Automotive Contest.

Goals/Objectives

We set goals each year. For example, in 2002, our goals included:

- Prepare students for employment in a wide variety of positions in the automotive service industry
- Encourage lifelong learning for personal and professional fulfillment
- Provide leadership within the automotive educational community

Student Learning Outcomes Assessment and Planning:

- **Outcomes Results:** Student learning outcomes relating to both technical and non-technical course work were assessed during on-campus classes with traditional written and laboratory examinations. During off-campus practicum courses, learning outcomes are again assessed for both technical and non-technical abilities, specifically relating to previous on-campus instruction. Assessment is accomplished through observations and subsequent written reports made by supervising faculty during periodic student work site visits. Observations of the student's mentor and employment supervisor are solicited by the supervising faculty member and included in each work site visit report.

- **Changes Based on Outcomes Results** included adding more writing assignments to courses and renewing emphasis on student preadmission interviews and selection processes.

Specialized Facilities/Equipment

We use approximately 50,000 square feet of specially equipped facilities. We also partner with industry members to use their facilities and equipment in extensive practicums.

II. Significant Changes Since 1994

Significant changes include:

- Hired faculty to conduct special projects
- Added the Chrysler CAP and Heavy Duty Truck program options
- Significantly increased enrollment
- Remodeled office area and main lobby

III. Strengths and Challenges

Strengths include:

- Wide recognition for excellence
- Strong and generous support from local, national, and international partners

Challenges include:

- Creating clearly defined learning outcomes assessment plan
- Upgrading facilities with limited legislative funding

IV. Next Steps/Action Items

- Become a separate department within WSU
- Resolve building maintenance and facilities upgrade issues
Mission

Our mission is to prepare students for employment in architectural and interior design firms and as product representatives for finishes, furnishings, and equipment. They enhance the quality and function of interior spaces, leading to improved quality of living, increased productivity, and protection of the health, safety, and welfare of the public they serve. Students solve problems in both residential and commercial design by applying their knowledge of aesthetics, construction technology, business, space planning, furnishings, finishes, and equipment.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included helping students to:

- Acquire knowledge and skills to think creatively
- Apply design fundamentals and theories
- Communicate effectively in written, oral, and visual forms
- Use appropriate materials and products
- Apply laws, codes and standards
- Demonstrate good business practices
- Develop professional responsibility, accountability, and effective organizational skills

Student Learning Outcomes

Assessment and Planning:

- Outcomes Results: An Interior Design Graduate will have understanding, knowledge, and related skills that address the following competencies:
  - Demonstrate a knowledge base and the ability to acquire information in order to practice interior design
  - Communicate effectively using oral, written, visual, and technological methods
  - Synthesize creative and conceptual solutions to problems utilizing the knowledge base acquired in general education and interior design courses
  - Demonstrate professional attitudes and behaviors including the attitudes of lifelong learning, ethics, and advocacy for both the profession and the clients
  - Assess program needs and demonstrate an evaluative attitude toward their experiences in and outside the classroom, experimental and non-experimental
  - Develop a higher level of drafting and presentation skills: line quality, symbols identification, keying and legends
  - Develop a creative method for presentation
  - Develop fundamental design/art skills

- Changes based on outcomes results included updating classroom technology; requiring students to learn presentation, CAD, and word processing software; adding an emphasis to the Technical Sales degree; and re-examining curricula and syllabi.

Specialized Facilities/Equipment

We maintain networking labs that have been developed and implemented to teach certification classes.
II. Significant Changes Since 1994

Significant changes include:

- Develop a higher level of drafting and presentation skills, line quality, symbols identification, keying, and legend.
- Develop a creative method for presentation
- Develop fundamental design/art skills

III. Strengths and Challenges

Strengths include:

- Well-trained, dedicated faculty with strong backgrounds in business and industry
- Flexible scheduling to meet student needs

Challenges include:

- Attracting and retaining qualified instructors to keep up with increasing enrollment

IV. Next Steps/Action Items

- Add qualified tenure-track faculty to meet the growing demand of instruction, additional courses and sections, and to replace additional faculty
- Continually upgrade outcome assessment processes
- Increase dedicated departmental funds
- Seek new and better ways for promoting the programs
- Take advantage of WSU Davis to meet the needs of students and to use the updated facilities

Sales and Merchandising/Technical Sales

I. Purpose/Description

Mission

Our mission is to provide education for individuals to serve as agents or sales representatives in selling technical products/services to other businesses, plants, professionals, and public and private institutions. We offer a technical sales emphasis tailored toward specific technical fields such as pharmaceutical and medical supplies, computer science, automotive services, interior design, electronic engineering, and manufacturing engineering.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included:

- Provide excellence in undergraduate education
- Provide graduates for the work environment and/or advanced education
- Promote lifelong learning

Student Learning Outcomes Assessment and Planning:

- Outcomes Results: We have developed a set of student learning outcomes including demonstration of excellent customer service skills, developing sales presentations, negotiating sales, customer profiling, team building and sales ethics. We use senior projects to evaluate these learning outcomes.

- Changes Based on Outcomes Results included adding more writing and mathe-
matics courses and adding workshops in sales presentations.

II. Significant Changes Since 1994

Significant changes include:

- Added faculty
- Sought and received more funding from local businesses and industry

III. Strengths and Challenges

Strengths include:

- Well-trained, dedicated faculty with strong backgrounds in business and industry
- Flexible scheduling to meet student needs

Challenges include:

- Attracting and retaining qualified instructors to keep up with increasing enrollment

IV. Next Steps/ Action Items

- Add faculty/staff to offset large enrollments
- Seek additional funding from industry for scholarships
- Strengthen outcomes assessment processes
- Continue to emphasize sales and merchandising degree for entry into the four-year, technical sales degree
- Develop ongoing departmental training program for academic advisement

Telecommunications and Business Education (TBE)

I. Purpose/Description

Mission

Our mission is to provide learners opportunities to gain both theoretical and practical knowledge and to develop character traits necessary for a successful life in a technological world. Learners are given opportunities to develop the skills of decision making, creativity and artistic expression, composition, research, and scholarship.

Goals/Objectives

We set goals to assist in accomplishing our mission each year. For example, in 2002, our goals included:

- Meeting the diverse needs of the students
- Providing an innovative, quality undergraduate program
- Promoting lifelong learning
- Developing students' telecommunication and business skills

Student Learning Outcomes

Assessment and Planning:

- **Outcomes Results:** We have determined that the following nine educational outcomes were critical to students' success: effective business communication skills, effective computational applications, knowledge and skills of technology, implementation of decision-making and problem-solving skills, preparation toward certification/licensing, knowledge of ethics and professionalism, understanding of diversity including international and intercultural issues, teaching and leadership skills, and learning outcomes through community partnerships.
Changes Based on Outcomes Results
included updating classroom technology
and updating course curriculum.

Specialized Facilities/Equipment

We maintain networking labs that have been
developed and implemented to teach certifica-
tion classes.

II. Significant Changes Since 1994

Significant changes include:

• Revised internship and practicum evalua-
tion forms to better evaluate the nine
department outcomes
• Remodeled some classrooms and facilities
to improve ventilation and solve other problems

III. Strengths and Challenges

Strengths include:

• Well-trained, dedicated faculty with strong backgrounds in business and industry
• Flexible scheduling to meet student needs

Challenges include:

• Attracting and retaining qualified instruc-
tors to keep up with increasing enrollment

IV. Next Steps/ Action Items

• Add qualified tenure-track faculty to meet the growing demand of instruction, additional courses and sections, and to replace faculty
• Continually upgrade outcome assessment processes
• Increase dedicated departmental funds
• Seek new and better ways for promoting the programs of the department
• Take advantage of WSU Davis to meet the needs of students and to use the updated facilities

Centers

The following table shows the centers associated with this college and their missions:

Standard 2: Table XXIII. College of Applied Science & Technology Centers

<table>
<thead>
<tr>
<th>Center</th>
<th>Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Science and Technology Center</td>
<td>Our mission is to improve Utah’s air quality by developing a better understanding of vehicle emissions. We provide advanced emissions technology training to local and national audiences. We have partnerships with American Honda/ Honda Canada and the Salt Lake Valley Health Department. We are a nationally recognized resource for on-board diagnostics training. For further information, see our self-study online or in the Exhibit Room.</td>
</tr>
<tr>
<td>Technology Assistance Center</td>
<td>Our mission is to enhance the competitiveness of Utah manufacturing firms by providing resources for information research, technology and management training, applied research, development, and testing. For further information, see our self-study online or in the Exhibit Room.</td>
</tr>
</tbody>
</table>