



Instructional Program Review Summary 2003-2004

Instructional Area: **Workforce**

Department: **Computer Studies and Advanced Technology**

Discipline: **Electronic Technology**

January 20, 2004

Instructional Program Review Summary

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NOTE: An external reviewer should not be required to refer to the documentation notebook to understand the Instructional Program Review

Summary. Rather, data should be clearly cited in the summary so that the reviewer can easily find the source documents if needed.

EXECUTIVE SUMMARY

Use the following guidelines to provide a concise overview/summary of the program review contained in this report.

Write a brief description of the goals and objectives of the discipline.

The Electronic Technology program at Austin Community College strives to provide the students a challenging educational experience which provides an opportunity to learn a marketable skill in each course taken within the program. The student is provided an education in electronic technology, safety, verbal and written communication skills, teamwork and team building, decision making and problem solving. The student is required to develop skills in the utilization of applied mathematics and the locating and assimilating of technical information.

Overview of how the program review was conducted.

The program review was conducted by obtaining input from students, community representatives in the electronic industry, full-time faculty, adjunct faculty, technical staff, and administrators. A review of program graduates for the last four years was conducted to determine their status within the electronic technology field.

Summary of findings:

Progress on previous program review recommendations.

Due to lack of funding and resources the program was unable to implement the recommended methodology to revise the program curriculum and degree offerings. The re-assignment, by the campus administration, of dedicated classrooms significantly impacted the courses and degrees available at the Northridge campus.

The lack of funding prevented the implementation of a program to promote the Electronic Technology program with local employers and potential students.

Program strengths.

The program has full-time and adjunct faculty members which are at the leading edge of technology of many industries in the Austin metropolitan area.

Areas for improvement.

A complete evaluation of the current curriculum and necessary space and equipment required to deploy a revamped program which better meets the needs of the community.

The program needs an in-house student and employer recruitment and retention function as well as a professionally conducted placement effort.

Key planning issues.

Adequate funding and complete re-evaluation of the curriculum associated with the degrees offered by the program. The willingness to look beyond Austin for job and training opportunities for our students.

Conclusions: What are the major conclusions regarding the present state of the program?

The program requires a complete review of the curriculum and a re-allocation of resources to meet the needs of the metropolitan Austin area.

Recommend future directions for the program based on this review:

- Expand services
- Maintain services
- Reduce services
- Close program

Recommendations: Summarize the self-study's recommended actions for improving the quality of the program.

Revise the course curriculum to include current technologies and the inclusion of computer based test systems and simulation software. Provide additional elective courses which will allow students to choose a diverse curriculum instead of the current restricted curriculum.

SELF-STUDY TEAM PARTICIPANTS

List the names of people who participated in the review and their association with your program.

Name **Ronnie Wilson** ACC Faculty Industry Representative
 Student

Name **Jim Sweet** ACC Faculty Industry Representative
Student

Name **Tom Cloud** ACC Faculty Industry Representative
Student

Name **Don Free** ACC Faculty Industry Representative
Student

Name **Douglas Lind** ACC Faculty Industry Representative
Student

Name **Linton Brooks** ACC Faculty Industry Representative
 Student

Name **Jesus Casas** ACC Faculty Industry Representative
Student

Name **Kurt Nalty** ACC Faculty Industry Representative
Student

Name **Linda Smarzik** ACC Faculty Industry Representative
 Student

PROGRAM DESCRIPTION

Provide a brief description of the overall history, major developments and current objectives for your program (limit to 500 words).

The program began in 1973 when two vocational-technical instructors from Central Texas College's Austin Model Project began Austin Community College's technical programs. These included an instructor in consumer-electronics/radio-TV and electronics technology. By August of 1973 the program hired a department chair.

The Electronics Department of Austin Community College began offering classes in September 1973. The program used the old equipment from the model project, as funds weren't available for the additional supplies until the spring of 1974. By the spring of 1974 the program had three full-time instructors.

The program was located at the Ridgeview campus for two years, then moved to the Rio Grande campus during the summer of 1975. During the 1976-1977 school year an additional full-time instructor was added. As the program continued to grow, additional instructors were added in 1980, 1981, and 1982. The department moved from Rio Grande to the Rutherford campus in early 1987. Additional faculty was added in 1990, 1992, and 1998.

During the fall of 1990 an additional degree program was developed to provide training in Computer Maintenance and Telecommunications.

The department moved to the Pinnacle campus for the spring 1992 classes and finally to the Northridge campus for the fall of 1992.

Currently the department is reviewing the associated curriculum and economy as related to high technology jobs available in the Austin and Central Texas region.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (SWOT)

List the names of people who participated in the SWOT and their association with your program.

Name **Ronnie Wilson** ACC Faculty Industry Representative
 Student

Name **Tom Cloud** ACC Faculty Industry Representative
 Student

Name **Douglas Lind** ACC Faculty Industry Representative
 Student

Name **Don Free** ACC Faculty Industry Representative
 Student

Name **Linda Smarzik** ACC Faculty Industry Representative
 Student

Name **Jose Montemayor** ACC Faculty Industry Representative
 Student

Name **Christopher Broecker** ACC Faculty Industry Representative
 Student

Summarize the findings of the SWOT analysis. Focus on the top 5 or 6 issues and answer the following questions:

Strengths: In what does your program excel?

The strengths of the Electronic Technology program lie with a diverse faculty knowledge, willingness to review and change basic and advance curriculum, dedicated students and staff, and a convenient location in the demographic center of Austin.

Weaknesses: What are the aspects of your program, which, if not addressed, will impede the area's future?

Inability to maintain curriculum current and obtain required equipment to keep up with current technology.

The lack of reimbursed specialization training which is unique to the Electronic Technology program.

The program lacks a defined and coordinated program for recruitment, retention, and placement of Electronic Technology students.

Lack of coordination of programs between the Riverside and Northridge electronic programs.

The lack of funds for a job placement or marketing effort by the department.

The lack of funds for an effective recruitment and retention programs for students.

The failure of the Northridge campus management team to provide classroom space with adequate space to teach technology based courses with adequate space and storage.

The failure of the college to fund tutors for the electronic program at the Northridge campus has negatively impacted our students.

The lack of funding for faculty development has hindered our faculty's ability to remain current with both the technology and methodology used by industry today. This lack of training affects our ability to create and use class presentations and demonstration to teach our students current industry standards.

Opportunities: What factors does your program need to take advantage of in order to enhance the quality of the area?

Many industries in the Austin area require electronic technicians as a core function within their facilities. The opportunity exist at this time in the evolution of the Austin economy to revise the program to better meet the future need of the community by working with industry and utilizing web based technology.

Threats: What are the external factors that could negatively impact your program's future?

The failure to attract capable and significant quantities of students as the result of a tight job market is a threat. Failure to acquire adequate funding to support the evolution of the technology required by the department to meet the future learning requirements of industry and the community.

Discuss changes from the program's previous SWOT analysis.

Many of the same difficulties exist as did in 1999 due to lack of funding in support of the program.

ANALYSIS

[a] Relevance of the program to College mission and desired ends

Mission:

Review the program's purpose statement. Verify that the statement is current and accurate and reflects the mission of the college as a whole or update the purpose statement.

The Self-Study team reviewed the program purpose statement and found (select one):

The purpose statement is current, accurate, and reflects the mission of the college.

The purpose statement was revised as shown below:

To train students in current and relevant technology associated with the high technology job market of local and regional industries. To provide students with knowledge and training which will enable them to seek employment at an upper level technician position. To enable students from diverse backgrounds to be successful in our program at an economical cost. To maintain faculty knowledge of current technology which is in high demand.

Desired Ends (Board Policy A-2. Intended Outcomes)

How well does the program support the intended outcomes of the college by providing “service-area adults with the postsecondary and higher education they need and can use for productive useful lives?”

The Electronic Technology program provides service area students with skills useful in obtaining employment in the high technology industries located throughout the central Texas region.

In what ways does the program demonstrate an open, responsible exchange of ideas?

Utilizing department staff meetings along with faculty meetings at the beginning of each long semester and the discussion of industry representatives during advisory meetings.

In what ways does the program provide an open door to educational potential?

The program provides access to high school students through the articulation agreements with many area high school electronic programs. The electronic technology program has provided students in the Southwestern Bell Corporation continuing education program the ability to transfer the completed program hours to college credit hours within the program.

In what ways does the program take targeted action to address internal needs within available resources?

Money is diverted from operations to allow the purchase of needed equipment required to teach the current curriculum.

In what ways does the program demonstrate a commitment to integrity and exemplary standards?

The department maintains a periodic review of adjunct faculty credentials and skill sets. The department monitors student's prerequisite requirements to assure classes are being taken by students which are prepared. Classes taken during military service are reviewed and measured against the department's database.

In what ways does the program demonstrate personal and professional ownership that generates accountability?

The program is developing an assessment plan to identify course and program objectives and to determine if we are meeting our purpose within the Austin regional community.

We utilize faculty evaluations conducted by students to determine how faculty are meeting both the course needs and those of the students.

Utilizing a systematic program review process which assesses the programs ability to meet the needs of the industries served by the college.

[b] Responsiveness to community needs and satisfaction of community demand

In what ways does the program address a verifiable need for the student, community, and society?

The program provides training which allows students to obtain jobs which pay two and one-half times minimum wage or more for entry level careers. We provide the community a trained work force which has been taught the skills needed to work in a team and for the good of the employer and community. The program develops a sense of responsibility of our students to their education, job, and family by providing an awareness of commitment and time management.

Describe the results of the program's most recent assessment of community need.

Utilizing the departments advisory committee meeting we re-established the importance of students utilization and proficiency in the program content.

How do the program's five-year enrollment trends compare with those of the College overall?

For the period from 1998 to 2002 the college had enrollment which was relatively constant while the enrollment in the electronic technology program declined 60%.

[c] Accessibility to students and identification of unnecessary barriers

Analyze when and where courses are offered (by campus, time of day, mode of delivery).

All courses offered by the Electronic Technology program are classroom based and are offered during the period of Monday through Thursday between the hours of 9 AM and 10 PM at the Northridge campus.

List the number of sections taught (by location).

From the Fall of 1999 to the Summer of 2003, 277 sections were taught all at the Northridge campus.

List the number of sections closed or canceled per course.

For the academic years 2002 and 2003 the following course sections were canceled.

DC Circuits	CETT 1403	6
AC Circuits	CETT 1405	6
Solid State Devices	CETT 1429	4
Digital Fundamentals	CETT 1425	2
Microprocessor	CETT 1445	3
Telephone Systems	EECT 2433	3
Computer Networking Technology	CPMT 1449	3
Pulse Circuits and Waveshaping	CETT 2471	3
Linear Intergrated Circuits	CETT 1457	2
Electronic Fabrication	CETT 1421	3
Computer Systems Maintenance	CPMT 1445	7
Advanced Computer Networking Technology	CPMT 2449	3
Communication Circuits	EECT 2439	2

How does each of the five-year demographic trends (gender, ethnicity, age group) for this program compare to the overall college trend? (List the source of your information.)

From the ACC Fact Book and the OIE web site the demographic trends for the Electronic Department parallel those of the overall college trends in ethnicity. The gender of our students are 80% male and 20% female, while the college overall is approximately 55% female and 45% male. The average age of students in the Electronic Technology program is 30.9 years while the average for the college is 27.4 years.

Identify any unnecessary barriers to students, especially those who are educationally disadvantaged and not well served by other colleges.

The Electronic Technology program is not supported by the college's tutoring program on the Northridge campus which directly impacts the students within the program which request but can not obtain additional assistance at times which are more convenient to our diverse student population.

d] Student outcomes including participation and successful-completion rates

How do course completion rates (A-B-C-D rates) for courses within this program compare to College norms?

The Electronic Technology program's grade awarded from the Fall 1999 to the Summer of 2003 were:

A	42%
B	24%
C	11%
D	3%
F	4%
W	14%

What are the program completion or graduation rates (compared to intent as well as overall) for this program?

The programs graduation rate is 45% per the Texas Higher Education Coordinating Boards 2003 Annual Data Profile (ADP 8C-1)

How do withdrawal rates for courses compare to College norms?

The Austin Community College average withdrawal rate for 2001 was 22.5%. The Electronics program had a withdrawal rate of 14.3% for the same period.

What do the results of the program's student learning outcomes assessments (departmental final exams, exit tests, standardized tests, etc.) indicate about the program?

The exams utilized in each course demonstrate the assimilation of the material presented.

[e] Measures of program quality and educational value added

- Academic Standards

What are the processes and procedures that the department uses to maintain academic standards and achieve consistency within the department?

Faculty is provided the elements which are to be presented in each course and student evaluations of the courses are reviewed along with course grades.

• **Curriculum**

What procedures are used to assure that the curriculum is current and adequately meets the needs of students?

The Electronic Technology program utilizes an advisory committee made-up of industries we serve along with meetings with individuals in the industries to which we provide students.

Are learning outcomes defined for courses and the program? Yes No
Are course texts up-to-date? Yes No
Are course and program listings in the ACC Catalog up-to-date? Yes No
Do all courses have up-to-date syllabi on file? Yes No

Evaluate the use of instructional resources (including those in the library).

In the capstone course the students are required to produce documentation associated with a project they are constructing. The research associated with the required documentation is conducted utilizing the library and the world wide web.

Evaluate the extent to which technology impacts the mode of instruction, including the number of courses and sections taught via distance learning.

The method of teaching Electronic Technology courses at the Northridge campus is via classroom contact. This is to a large part due to the requirement of laboratory activities being a daily part of the curriculum.

Evaluate the extent to which instruction is focused on problem solving, active learning, and work-based elements.

Courses presented by the Electronic Technology program at the Northridge campus are based on student solving problems associated with the theory and utilizing laboratory exercises to interactive learning experiences and employment-based work elements.

List below the current discipline-specific courses within the program and the date of the latest review.

Course	CETT 1403	Date of Last Review	Sept. 2002
Course	CETT 1405	Date of Last Review	Sept. 2002
Course	CETT 1425	Date of Last Review	Sept. 2002
Course	CETT 1429	Date of Last Review	Sept. 2002
Course	CPMT 1445	Date of Last Review	Sept. 2002
Course	CPMT 1449	Date of Last Review	Sept. 2002

- **Faculty**

Do all faculty teaching in the program meet SACS requirements?

Yes No (if no, please explain)

What is the ethnic diversity of the faculty?

The faculty of the Electronic Technology program consist of:

White	12
Hispanic	2
Asian	2

What evidence is there that faculty are staying current in their respective disciplines and instructional methodologies?

Faculty review technical journals associated with both discipline specific material and instructional methodologies. Faculty participate in discipline specific professional societies,

What recognition has been given to faculty within the last year?

None.

Describe professional development activities in which program faculty participate.

Faculty has participated in technical presentation of emerging technology in the electronic field. They have participated in presentations on the use of technology in the classroom and the methods utilized to deliver technology based presentations.

What percent (and the total number) of faculty participate in formal professional development activities on a regular basis?

All faculty members participate in professional development activities with one member doing so on a regular bases. They represent 6% of faculty.

Describe the types of discipline-related professional development activities offered.

Evolving technology classes on digital signal processing and Altera's digital development software.

What percent of sections do full-time faculty teach?

Full-time instructors taught 176 of the 342 sections offered in the last four years or 51.7% of all sections.

What percent of contact hours do full-time faculty teach?

Full-time instructors taught in the last four years 51.7% of all contact hours.

Are student evaluations of instruction within acceptable range? Yes No

To what extent are alternative modes of instruction incorporated into classes?

Laboratory activities are utilized to reinforce lectures along with worldwide web based research on classroom topics.

- **Student Satisfaction**

Do student course evaluations demonstrate satisfaction with courses?

Yes No

[f] Adequacy of program resources and efficiency of resource use

Describe the overall adequacy of resources (human, technological and capitol, facilities, and fiscal) available to the program for providing effective program delivery and outcomes.

Current technology entering the work place of our student's prospective employers are not being taught due to lack of capitol funding to acquire required teaching material and inadequate physical space for the required material.

Capitol funds are not provided to replace failed equipment or to update equipment to current technology.

What is the ratio of full-time to adjunct faculty (by course and for the program overall)?

		Full Time/Adjunct
DC Circuits	CETT 1403	9/14
AC Circuits	CETT 1405	5/7
Solid State Devices	CETT 1429	3/6
Digital Fundamentals	CETT 1425	7/8
Microprocessor	CETT 1445	5/3
Telephone Systems	EECT 2433	5/2
Computer Networking Technology	CPMT 1449	7/0
Pulse Circuits and Waveshaping	CETT 2471	3/2
Linear Intergrated Circuits	CETT 1457	6/2
Electronic Fabrication	CETT 1421	4/3
Computer Systems Maintenance	CPMT 1445	12/2
Advanced Computer Networking Technology	CPMT 2449	4/0
Communication Circuits	EECT 2439	0/2
Total number of sections taught		70/51

Full time faculty taught 57.9% of all sections offered within the Electronic Technology Program during academic years 2002 and 2003.

How up-to-date is the equipment used by the program?

Much of the laboratory equipment used in the program exceeds ten years of age. Overhead projectors used in the classrooms are salvaged units from the University of Texas and are of poor quality.

The Communication Circuits course is without equipment to properly teach the course.

The Digital Fundamentals course has too few trainers for the number of students utilizing the equipment.

Identify possibilities for improving the efficiency of the program's use of resources.

If adequately sized classrooms were available the flexibility offered for the assignment of courses to be taught could be drastically improved. The purchase of notebook computers would relieve space problems in classrooms requiring electronic instruments be available to our students daily.

g] Comparison of program performance, price, and enrollment with that of alternate local suppliers

How is the program competitive with similar programs offered by other institutions or schools in the service area in terms of performance, cost to students, and enrollments?

Our students are well received by local and regional employers. The cost of our program is one tenth that of the other schools within our service area. Our enrollment appears to be double that of the other schools.

[h] Direct and indirect program-related revenues and costs to the College

Identify the major sources of revenue for the program, including grants, partnerships, etc.

Revenue sources for the program are from student tuition, state reimbursement, and local property taxes.

Compare program costs to those of other ACC programs.

The cost of the Electronic Technology program is comparable to that of the average ACC program.

Compare the program's actual expenditures to the approved program budget for the previous two years.

The monies made available in the last two years to the department were expended in the daily operation of the department and the purchase of required capitol items. Personnel budget was expended in the employment of staff and faculty.

TRANSFER or WORKFORCE AREA-SPECIFIC INFORMATION

Only Workforce Programs complete the items below.

Report/status from latest external accrediting agency visit

The report covering the Texas Higher Education Coordinating Board site visit was issued in 1999.

When was the most recent program revision?

Spring 2003

Number of declared majors intending to complete a program who complete degree/certificate requirements within 6 years

In 2003 THECB Annual Data Profile report indicates the Electronic Technology Program had 92 declared majors in 1999 and graduated 41 in 2003.

Average number of semesters it takes for students to gain degree/credential.

Data not available.

Number of graduates within the last three years

264

Demographics of graduates

For the period 2001-2002

White	45
Black	6
Hispanic	18
Asian	17
Native American	1
International	2
Unknown	1

Percent of graduates who are employed within one year of graduation.

The program had 264 graduates from the Fall of 1999 to the Fall 2002. We were able to locate 56 of these students one-year after graduation. 41 of these 56 students were employed in the field of electronics.

What evidence exists that program completers (or near completers) are successful on the job? What, if available, are their beginning salaries?

Data not available.

Percent of employers indicating satisfaction with graduates.

Data not available.

Discuss the most recent results of Focus Group or internal survey of employers.

Data not available.

Number of employers indicating need for more graduates

Data not available.

Provide evidence of SCANS competency integration into course syllabi and programs.

SCANS elements are included in each class standard syllabus and are integrated into the course content.

How often does the program's advisory committee meet to discuss curriculum issues?

Every twelve to twenty-four months.

When and where are advisory committee minutes maintained and posted?

Advisory committee minutes are maintained with the department and are posted inside ACC's website (the internal website for all ACC faculty and staff).

Evidence of recent review of curriculum by external advisory committee.

The most recent completed curriculum review was undertaken in September 1999. A review of the current curriculum is presently underway between the Semi-Conductor Manufacturing program and Electronic Technology. It is expected to be completed in eighteen months.

Advisory committee validation of entry level skills

The ACAP of 1999 is the most recent review of the skills required by area employers. An entry skills assessment is proposed for 2004 if funding is available.

Only Transfer Programs complete the items below.

Number and percent of graduates who transfer within one year of graduation.

Number of articulation agreements with universities and colleges

Number of courses that transfer

Number of student complaints about problems with course transfer

Discuss the results of the most recent Survey/focus group of transfer institutions.

Discuss data from transfer institutions if available.

Number of students transferring successfully.

CONCLUSIONS

Based on the information collected and analyzed during the program review process, what are the major conclusions of this review of the program? Summarize them here and complete the *Program Status* form.

The Electronic Technology program has experienced a significant reduction in the number of students and sections offered. This downturn is in direct proportions to local employment. The future requirements of local and regional employers will require a revision of current curriculum and the integration of current technology into our program.

PROGRAM VISION STATEMENT

State the program's vision or preferred future for the next five years. The vision statement should provide direction to the program as it makes improvements to enhance its effectiveness and efficiency.

With the evolution of technology, the Electronic Technology program will maintain a current curriculum based on these evolving technologies utilizing adjunct faculty working in the technology and to obtain current technology through purchase, grants, or donations. The revision of curriculum will allow a student to gain marketable skills with each course completed.

RECOMMENDATIONS

What does the self-study team recommend for improving or maintaining the quality of the program? Summarize them here and complete the *Quality Improvement Plan* form.

- A revision of current curriculum.
- A review of regional employers job skill requirements of our graduates.

- An upgrade of current equipment available to teach curriculum.
- The addition of adjunct faculty working in current technology.
- Development of a faculty education program related to current technology.
- Student employment assistance through a department placement office.
- Student tutoring services within the department.

ADDITIONAL COMMENTS

APPENDIX

List all documents that you used in your report:

Fact Book 2001-2002

Electronic Technology Department maintained data

THECB Data

ACC OIE web site data

When you have completed this report, send it via e-mail to the Coordinator for Institutional Assessment (rwall@austincc.edu) as an attachment.

Quality Improvement Plan Form for Electronics Program

To be useful, a plan must be based on distinct, measurable tasks or actions that strengthen the program. An action plan is not philosophical or abstract. It can and should include some “what ifs.” “If this equipment is purchased,” “If space is added,” or “If schedules are changed,” are examples.

The template below is intended to assist you in thinking and planning long-term. The College knows that factors can and do change so that some of these projected tasks may not occur—especially those projected for the third year. Furthermore, we know that this plan will need to be revised. Therefore, in one year, OIE will be asking you to update both your progress towards these tasks and to review/revise your tasks for the second and third year of the plan.

Note on Requests for Funds: Consider changes that require **one-time** costs (equipment, renovation, etc.) and changes that require **recurring** costs (typically new positions). *All requests for funding should indicate how they will improve learning and meet targeted objectives.*

2004-05				
Goal: Establish skill requirements and job elements for Technology Technicians required by regional employers.				
Estimated completion date: Fall 2005				
Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Conduct scientific survey of numerous regional employers.	Re-establish skill elements required of graduates by a diverse employer base.	\$100,000 to \$150,000 to have a survey conducted by a professional team.	Program will continue to provide training that will not provide graduates required skills to obtaining the entry-level job in a very diverse job market.	Ronnie Wilson

Goal: Develop a comprehensive placement program for students within all technology programs.				
Estimated completion date: Fall 2005				
Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Develop necessary relationships with regional	Meeting the students and employers employment	\$100,000 to \$250,000 for the development of the	Students will continue to struggle to find meaningful	Linda Smarzik

employers to make the technology programs at Austin Community College their first choice for employees.	requirements with highly qualified applicants.	required relationships with potential employers and to staff the program.	employment in the area of their training.	
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Goal: Develop a comprehensive curriculum for an entry-level programmable logic controller course.

Estimated completion date: Fall 2005

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Technology Technician student with the required skill set to install, program, and troubleshoot a moderately complex programmable logic controller circuit in an operating environment.	Students will have a very valuable skill, which other technology programs do not provide to all of their technology students. This skill set will be valued by employers within the Central Texas region as installation of programmable logic controllers continue.	\$100,000 to \$250,000 for the acquisition of equipment to teach the required course material for a generic programmable logic controller course, which would not be vendor specific.	Students will not be provided a very valuable skill set which many small to large organizations now have a requirement.	Ronnie Wilson

Goal: Develop a comprehensive curriculum for an advanced telecommunication course, which would be based on emerging wireless communication technology.

Estimated completion date: Fall 2005

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Technology Technician student with the required skill set to install, program, and troubleshoot a current and proposed wireless telecommunication system based on current and	Students will have a very valuable skill, which other technology programs do not provide to all of their technology students. This skill set will be valued by employers within the Central Texas region as	\$150,000 to \$200,000 for the acquisition of equipment to teach the required course material for an advanced telecommunication course, which would not be vendor specific.	Students will not be provided a very valuable skill set which many small to large business enterprises are now in the process of implementing in their offices and facilities.	Kurt Nalty

evolving technology.	installation of the technology evolves.			
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Goal: Develop an advanced cabling course for telecommunication systems.

Estimated completion date: Fall 2005

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Technology Technician student with the required skill set to install telecommunication-cabling systems to local and national code and standards.	Students will have a very valuable skill, which other technology programs do not provide to all of their technology students. This skill set will be valued by employers within the Central Texas region as installation of telecommunication infrastructure within business, schools, homes and various commercial facilities are now common.	\$100,000 to \$150,000 for the acquisition of equipment and the installation of the required physical equipment to teach the required course material and to provide a physical laboratory for the installation of cabling systems to code and national standards.	Students will not be provided a very valuable skill set which many contractors and end users require.	Kurt Nalty

2005-06

Goal: Develop a comprehensive curriculum for the complete Electronic Technology program, which will meet the needs of a diverse employer base.

Estimated completion date: Fall 2006

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Based on the results of the previous 2004-05 study of the employer skill	Students will have a very valuable skill set that regional employers will	\$75,000 to \$125,000 for class relief for faculty to produce the required	Program will continue to provide training that will not provide graduates	Ronnie Wilson

requirements develop a comprehensive curriculum to provide the students within the program the required skills to be employable by the largest possible employer base within the region.	value and seek our students due to their knowledge and acquired skills.	coordinated curriculum.	required skills to obtaining the entry-level job in a very diverse job market.	
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Goal: Develop a comprehensive curriculum for a power quality course related to the electrical power system used to power electronic systems and facilities.

Estimated completion date: Fall 2006

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Technology Technician student with the required skill set to install, maintain, and troubleshoot power systems associated with power systems in offices and facilities.	Students will have a very valuable skill, which other technology programs do not provide to all of their technology students. This skill set will be valued by employers within the Central Texas region as installation of more sensitive electronic equipment continues the requirement for knowledge of power systems grows.	\$100,000 to \$125,000 for the acquisition of test equipment and electrical supply materials and equipment to teach the required course material for a power quality course.	Students will not be provided a very valuable skill set, which will allow them to resolve facility wide problems with computer, control, and power systems.	Ronnie Wilson

Goal: Develop a comprehensive curriculum for an advanced level programmable logic controller course.

Estimated completion date: Fall 2006

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Technology Technician student with the required skill set to	Students will have a very valuable skill which most technology programs do	\$150,000 to \$250,000 for the acquisition of equipment to teach the	Students will not be provided a very valuable skill set which many small	Ronnie Wilson

install, program, and troubleshoot a large and complex programmable logic controller circuit in an operating environment.	not provide to their technology students. This skill set will be valued by employers within the Central Texas region as installation of programmable logic controllers continues.	required course material for vendor specific programmable logic controller course.	to large organizations now have as a requirement.	
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Goal: Develop a comprehensive curriculum for an engineering technician level course for the simulation of analog and digital as used in a design group's evaluation process.

Estimated completion date: Fall 2006

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Engineering Technology Technician student with the required skills to install, program, and troubleshoot circuit simulation compared to hand calculations and circuit measurements.	Students will have a very valuable skill, which other technology programs do not provide to their engineering technology students. These skills will be valued by development organizations, which are evaluating products and circuit designs.	\$50,000 to \$75,000 for the acquisition of simulation software.	Engineering technology students will not be provided a very valuable skill set which many design and development organizations desire.	Linton Brooks

Goal: Develop a comprehensive curriculum for a web based data acquisition course, which provides the student with the required knowledge to acquire electrical and physical measurements and to utilize the acquired data in a program and to then post the real time data to a web page for use by others at a remote site.

Estimated completion date: Fall 2006

Task or Action	Expected Outcome/ Measure of Success	Estimated Cost(s) with Justification	Consequence if Not Funded	Who is Responsible
Provide the Technology Technician student with the required skill set to install, program, and	Students will have a very valuable skill which most technology programs do not provide to their	\$100,000 to \$250,000 for the acquisition of equipment and software to teach the required course	Students will not be provided a very valuable skill set, which many small to large organizations now	Jesus Casas

troubleshoot a remotely located data acquisition system.	technology students. This skill set will be valued by employers as more and more data is required to be posted to the web for real time viewing by remotely located users.	material for generic vendor equipment.	require.	
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