



Mt. San Antonio College Planning for Institutional Effectiveness (PIE) 2006-07



Department/Unit:	<input type="text" value="Air Conditioning and Refrigeration"/>	Division:	<input type="text" value="Applied Technology and Health Sciences"/>		
Contact:	<input type="text" value="Darrow Soares"/>	Ext:	<input type="text" value="4637"/>	Email:	<input type="text" value="Dsoares@mtsac.edu"/>
Dean/Supervisor:	<input type="text" value="John Heneise"/>	Ext.	<input type="text" value="4750"/>	Email:	<input type="text"/>

Note: Departments with multiple disciplines and/or programs need to submit additional PIE packets as needed to represent planning in different disciplines.

Institutional Planning Framework

1. Institutional Mission

The campus is unified through its demonstrated connection to the mission. Driven by the California Master Plan for Higher Education, revised by the President's Advisory Council, and approved by the Board of Trustees, it informs all planning and assessment.

The Mission of the College is to

- provide accessible and affordable quality learning opportunities in response to the needs and interests of individuals and organizations;
- provide quality transfer, career, and lifelong learning programs that prepare students with the knowledge and skills needed for success in an interconnected world; and
- advance the State and region's economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement.

2. College Goals

College goals allow the campus to focus on critical issues. Articulated by the President's Advisory Council, they guide all planning and assessment processes. Goals are listed below as current and ongoing goals, retaining the lettering used in the 2005-06 process. This division of goals may be useful in that the goals for current focus are more concrete than the ongoing goals and perhaps easier for us to document progress.

Current focus:

- B. The College will secure funding that supports exemplary programs and services.
- C. The College will prepare students to be critically thinking, socially, culturally, and politically responsible citizens through the development of exemplary programs
- D. The College will improve career/vocational training opportunities to help students maintain professional currency and achieve individual goals.
- E. The College will improve the quality of its partnerships with business and industry, the community, and other educational institutions.
- H. The College will utilize technology to enhance teaching and learning and to provide support for educational programs.
- I. The College will provide an environment for consciousness of diversity while also providing opportunities for increased diversity and equity for all across campus.

Ongoing goals:

- A. The College will provide a risk-free environment for the measurement of SLOs under the umbrella of Planning for Institutional Effectiveness.
- F. The College will become a nationally recognized institution of higher education that embraces an atmosphere of self-reflective dialogue in making policies and plans and in communications.
- G. The College will provide a risk free environment for the measurement of AUOs related to Planning for Institutional Effectiveness.
- J. The College will embrace an environment of mutual respect and integrity that encourages the exchange of ideas and acknowledges and values contributions made by members of the College community.

3. Internal/External Conditions

Consideration of internal and external conditions is the basis of department/unit planning and assessment processes.

3a. Identify those external conditions that have influenced the department/unit goal-setting process:

Note: External conditions include disciplinary or regulatory changes, changes in technology or legislative changes, accreditation recommendations, enrollment issues, advisory committee input, etc.

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| <ol style="list-style-type: none">1 AB 970 Establishes energy efficiency standards for residential and nonresidential buildings. The standards were developed and adopted by the California Energy Commission (CEC) as mandated by Assembly Bill 970 to reduce California's electricity demand. These standards went into effect June 1, 2001, but cities and municipalities have not enforced the new standards until recently. The new standards have a broad effect on installation methods and the operation of air conditioning and refrigeration.2 Changes in Technology. Based on California Employment Development Labor Market Information (www.Labormarketinfo.edd.ca.gov) and Bureau of Labor Statistics (www.bis.gov), most new jobs created in air conditioning and refrigeration in California over the next 10 years will be associated with new technologies. According to government information, by 2014 there will be 18,000 to 21,000 new air conditioning and refrigeration jobs created that will require a thorough knowledge of building automation and energy management. |
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- 3 Advisory Committee input.** The AIRC Department advisory committee has strongly encouraged the AIRC Department to expand the curriculum to emphasis Building Automation as it applies to Air Conditioning and Refrigeration. They also recommend that Work Experience or internships be utilized more by entry level students.
- 4 PAHRA Accreditation.** The AIRC Department recently went through accreditation through the Partnership of Air Conditioning, Heating and Refrigeration Accreditation. The visitation committee made two recommendations: (a) offer a thorough new student orientation at the beginning of each start cycle. (b) strengthen ties with the AIRC Advisory Committee.

3b. Identify those internal conditions that have influenced the department/unit goal-setting process. Please include a periodic review of attached data [provided for academic departments only].

Note: Internal conditions include results of previous SLOs/AUOs assessment, IT data, changes in technology, changes in budget, staffing, resources, enrollment issues, facilities issues, etc.

- 1. VATEA Core Indicators.** VATEA guidelines require that departments receiving Carl Perkins funding be involved in Program Accountability and consistent Program Improvement. Other core indicators affecting our goal setting process include Skill Attainment and Placement & Retention.
- 2. Student Learning Outcomes.** In 2005-2006, the AIRC Department addressed two Student Learning Outcomes at the program level: Technical ability and job placement. The department will continue to focus on these outcomes and modify our assessment practices as a means of program improvement and accountability.
- 3. Compressed Calendar.** The sixteen week compressed calendar has created scheduling challenges caused by standardized course start and end times. The result is course overlap for students that could be enrolled in overlapping classes.
- 4. Department Relocation.** Transfer to the new building 69 is complete, but AIRC 34 continues to install equipment made inoperative during the move. Organizing and securing material and equipment is an ongoing challenge.

DEPARTMENT/UNIT PLANNING PROCESS

Note: For assistance with the SLOs/AUOs process, please contact the SLOs/AUOs Team Coordinator, Jemma Blake-Judd X3934

4. Department/Unit Goals

Department/Unit goals allow the area to focus its priorities. Prompted in part by College goals and generated by faculty/staff, they guide area planning and assessment.

Goals:

- 4a.** List a MINIMUM OF TWO GOALS to be addressed through the SLOs/AUOs process. Please do not list outcomes statements here. When appropriate, identify the connection of your goals to the College goals.

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| 1. | Place more students with employers associated with the Air Conditioning and Refrigeration Industry and record their placement for the measurement of Student Learning Outcomes. College Goals include: A,D, E, F. |
| 2. | Develop a more reliable means to assess student placement. College Goals include: A,D, E. |
| 3. | Improve student test scores on the Commercial Refrigeration ICE Exam for the measurement of Student Learning Outcomes. College Goals include: A, C, D, F. |
| 4. | Research the Commercial Air Conditioning ICE Exam as a means to assess Student Learning Outcomes at the course level : AIRC 26 College Goals include: A, C,D,E. |

4b. List a MAXIMUM OF THREE goals that will not be assessed through the SLOs/AUOs process. When appropriate, identify the connection of your goals to the College goals.

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| 1. | Submit curriculum to emphasis building automation as a strong component of the AIRC Program
College Goals include: C,D,E, F,H |
| 2. | Secure funding to provide an improved lab environment to teach Building Automation and support AB 970 which establishes energy efficiency standards for residential and nonresidential buildings. College Goals include: B C,D,E, F,H |
| 3. | Research existing program level orientations and document Best Practices as per PHARA recommendations
College Goals include: C,D, F, I,J. |



5. SLOs/AUOs

SLOs/AUOs are a means of evaluating and validating area/program effectiveness. Created and assessed by department /unit faculty/staff, they can inform planning

5a.

SLO	Means of Assessment	Summary of Data Collected	Use of Results
.Certified students of the Air Conditioning and Refrigeration Program will be successfully employed in the field	1. 60% of responding program completers of the AIRC program will report employment in the field of Air Conditioning or Refrigeration on the AIRC Certified Student Survey. The survey will be administered by the AIRC program in August of each year and submitted to program completers from the previous academic year. Students will be surveyed for employment when they have completed at least 12 out of 36.5 required AIRC units.	Based on the survey, job placement was below expectations. This <u>severe</u> summary indicates the response of the 102 program completers that were contacted.. 55% reported employment in the HVAC field As a result of their educational experience 75% received a pay increase 89% Learned new skills to improve their position 55% Learned new skills to change jobs	The survey was much more extensive than the means of assessment required. The raw data indicated numerous flaws in the distribution process As a result, PIE Goal 4a-2 is to develop a more reliable means to assess student placement. This will include working with Research and Development to focus the survey instrument and place the distribution process in Research and Development by May 2007.
2. Certified students of the Air Conditioning and Refrigeration Program will be technically proficient	2. At the end of their final term, 80% of the AIRC program completers will successfully pass the Air Conditioning and Refrigeration Industry Competency Exam (ICE) with a total score of 70%, with no less than 50% in any sub category. The ICE Exam will be administered by the AIRC Department in December and May of each year. Video General Incorporated (VGI)	Average Test Scores of two two sessions for 2005-2006 Academic Year The summary indicates the subcategory score of the ICE Exam. System Design and Component Application : 63% Installation and Start-Up 56% Preventative Maintenance 45% Service and Repair 58% Key findings: Students were performing lower than expected on the ICE exam.	As a result of the low scores in all of the subcategories of the ICE Exam, the AIRC department . As a result of the low scores the AIRC included six hours of ICE exam review in the AIRC 34 class and 3 hours of ICE exam review in AIRC 25. Direct instruction on test taking skills was added to AIRC 10, 20, 25,26a, and 34.

	<p>will evaluate the exams, make available the results and warehouse the results. ICE categories will be limited to either commercial refrigeration or commercial air conditioning. Student will be considered program completers and eligible for the ICE exam when they have completed 31 out of 36.5 required units.</p>		<p>The AIRC Dept has run one test session since implementing the changes above. After one session the subcategory scores have improved</p> <p>System Design and Component Application : 73%</p> <p>Installation and Start-Up 72%</p> <p>Preventative Maintenance 68%</p> <p>Service and Repair 78%</p>
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Everyone please complete 5c

5c. Goal Implementation

Goal implementation is a non-evaluative process necessary to achieve the area goals. Determined by faculty/staff, goal implementation facilitates planning.

	Department/Unit Goal	Responsible Parties	Implementation Timeline	Status of Implementation		
				Planning	Implementing	Completed
	05-06 Goal: PAHRA Accreditation	Darrow	Feb 2007			X
	05-06 Goal: AIRC 11 project development and implementation	Lanny, Darrow				X
	05-06 Goal: Research and implement new California Energy	Richard,				X

Commission standards for construction into curriculum.	Lanny Darrow				
Place more students with employers associated with the Air Conditioning and Refrigeration Industry and record their placement	Darrow	Ongoing		X	
Develop a more reliable means to assess student placement		August 2007	X		
Improve student test scores on the Commercial Refrigeration ICE Exam	Darrow				
Submit curriculum to emphasis building automation as a strong component of the AIRC Program	Lanny	Fall 2007		X	
Secure funding to provide an improved lab environment to teach Building Automation and support AB 970 which establishes energy efficiency standards for residential and nonresidential buildings.	Lanny Richard Darrow	Fall 2007	X		
Research existing program level orientations and document Best Practices as per PHARA recommendations	Darrow	Fall 2008	X		

6. Resources

Resources support achievement of goals. Requested by department/unit faculty/staff, they directly support plan implementation.

Note: Resources include: research support, budget allocation, training, instructional equipment, marketing, staffing (classified, faculty, and/or management positions), facilities, etc.

Department/Unit Goal	Resources Needed?		If yes, please list resources needed
	Yes	No	
Develop a more reliable means to assess student placement	X		From the Research Department
Secure funding to provide an improved lab environment to teach Building Automation and support AB 970 which establishes energy efficiency standards for residential and nonresidential buildings.	X		Building Automation Equipment and Duct Testing Devices
Organize and secure equipment and materials resulting from the move to Building 69	x		Additional Storage

7. Signatures

Department Chair or Unit Manager: _____ Date: _____

Dean/Supervisor: _____ Date: _____

Thank you for your work in preparing this form. It will help us tremendously.

THIS REPORT IS DUE TO YOUR DEAN OR SUPERVISOR by Friday, March 16, 2007

Process Timeline:

October 2006	Departments and administrative units receive forms
March 16, 2007	Completed forms are due to division office or appropriate manager
April 12, 2007	Deans/managers prepare a summary of the PIE forms they received and submit to appropriate Vice President
May 10, 2007	Vice Presidents prepare a summary of reports they have received to take to budget allocation discussions.
End of May 2007	IEC reviews all submitted summaries to prepare a year-end report to PAC on progress made in meeting College goals.