Administrative Response  
Machine Manufacturing Technology  
Program Review  
December 7th, 2012

We thank you for your tireless dedication to your profession, students and the community as you’ve created, maintained and improved the outstanding quality of Machine Manufacturing Technology.

Also, we thank you for a thoughtful, well organized review and presentation. We were particularly impressed by the degree to which you seek feedback (from your students and Industry Advisory Committee) as well as through your own reviews to continually improve your program. It was obvious that this process is the way you do business, not just how you prepared for your Program Review. We thank you.

This response contains 4 sections: 1) Commendations, 2) Suggestions/observations, 3) Response to recommendations/areas of SAC needs and 4) Closing comments.

Commendations

- The inclusion of modeling and prototyping
- Continual updates to your Mastercam CAD/CAM, Solidwords, and Rhino software
- The review and deactivation of inactive courses
- The critical review and subsequent adjustment to the number of on-line offerings
- Evolving your OEOE to a more structured, though still flexible, process designed to encourage and facilitate student success, including the concept of either a day time or evening 'shift' for students with a common start time, but retaining the flexibility of an open exit time
- Evaluation of and changes to your program's use of CIPs to facilitate improved student retention and success
- The incorporation of active advising relative to retention and student success
- The exploration and incorporation of hybrid classes
- The identification of assessment driven changes for MCH 115, 120, and other courses
- Your acknowledgement of not having met assessment plans/timelines along with the subsequent development of a plan to do so
- Modification to certificates relative to your AAS degree
- Core Outcomes Mapping
- Acknowledgement and identification of imbedded related skills in MMT courses
- Mapping of degree and certificate outcomes
- Piloting of the assessment of certificate and degree outcomes
- Use of OLMIS when reviewing labor market information
- Use of IAC feedback relative to adjusting course work and program
• Close working relationship with Saddleback CC and Concordia University
• Obtaining Boeing's acknowledgement of MMT's AAS degree relative to their entry level positions
• Developing a cross walk of your courses with national standards (NIMS)

Suggestions/Observations

Though it is by no means required, we appreciate the extent to which you work with other PCC Departments, most notably Engineering, Electronic Engineering Tech, and Drafting, to help provide their students with rich, hands on experiences. Equally impressive and appreciated are your efforts with the high school robotics teams and the summer rapid prototyping workshops you conduct for high school teachers.

The Instructor Qualifications that are currently in force (posted on the college website, [http://www.pcc.edu/resources/academic/instructor-qualifications/mch.html](http://www.pcc.edu/resources/academic/instructor-qualifications/mch.html)) are very different from either the current (from 2008) or proposed (2012) sets that are described in the Program Review. The 2012 version needs to be approved (see process outlined: [http://www.pcc.edu/resources/academic/instructor-qualifications/revision-instructions.html](http://www.pcc.edu/resources/academic/instructor-qualifications/revision-instructions.html)). In doing so remember to review and include the specific requirements for Related Instruction. If you have questions, contact Kendra Cawley for assistance.

The April 2010 Interim Accreditation Report notes that: PCC must document “progress in demonstrating, through regular and systematic assessment, that students who complete their programs have achieved the intended learning outcomes of degrees and certificates. Further, the college must begin to demonstrate, in a regular and systematic fashion, how the assessment of student learning leads to the improvement of teaching and learning.” I am pleased to note that your program has excelled in this.

Improvement Plan/Recommendations

Maintaining a current curriculum:
A. Continue to review and upgrade course outlines for most courses.
B. It is difficult to attract and maintain motivated Industrial Advisory Committee membership.
C. Continue to review and adopt emerging technology.
D. Internally develop training videos in shop skills to compliment coursework training.

These are laudable and have our support. Regarding item B, we suggest you raise this question at a PCC CTE Chairs meeting to learn of best practices and, if applicable, to incorporate them into your recruitment and retention of IAC members.

Professional development:
A. Our staff request setting up a budget for staff development such as conferences, etc.
B. Bring in trainer to train staff on setup and use of existing MAZAK laser – Est. $600 - Priority high
To the extent that funds are needed beyond your base, General Fund budget, we urge that you work with your Division Dean to secure one time margin dollars, though on an annual basis, to meet this need.

**Access and success for students:**
A. Create a college wide system that reports statistical completion and retention information back to programs. Programs have very limited visibility of program completers. *It seems likely that your program isn't alone on this, but rather shares this concern/need with other CTE Programs.* We suggest inviting Laura Massey, Director Institutional Effectiveness, to a CTE Chairs meeting to discuss these needs, identify the data points of interest, and explore options for acquiring them. Additionally, Ms. Massey will be able to point you to and walk you through the wealth of data contained on the Institutional Effectiveness website.

B. Seek financial aid support for one year and EST certificates. Federal Financial Aid is intended for degree seeking students. *We understand you are already working with Burt Logan, Director Financial Aid on this, which is the path we would have suggested.* Additionally, we recommend you work with the Grants Office (Miriam Friedman) to explore possible grant/funding sources as well as our Foundation (Kim Kono, Director)

C. Our SAC needs to review and possibly adjust up our minimum math requirement for our program.
D. Expand internship (CO-OP) resources to assure certificate and degree completion.
E. Market to engineering and arts programs to inform students of opportunities in our creative trade.

*Given the increased focus on student retention and success, we support recommendations C, D, and E.*

**Obtaining needed resources:**
A. More proactive approach from grants department in grant writing to support program and it's goals. *Just recently, the Grants Office requested a listing of topics of interest from Sylvania for future grant activity. We urge that you work with your Division Dean to identify these areas and have them added to the list.*

**Being responsive to community needs:**
A. Engage in cross departmental coursework for a certificate (EST?) relating to product design and development.
B. Create EST certificate in Rapid Prototyping.
C. Consider establishing an AAS degree in Manufacturing Engineering Technology to articulate with OIT.
D. Market to high school programs to expand entry level pipeline into the machining trades.
E. Consider creating a marketing video for our program and link it to the PCC MMT website.
F. Seek long term grant funding to support FIRST Robotics summer classes

*We support these goals and commend you for noting them.*

**Recommendations that require additional funding, present them in priority order:**

1. Bring in trainer to train staff on setup and use of existing MAZAK laser – **Est. $600 - Priority high.** Please see prior comment regarding use of margin dollars.
2. Create metrology lab to support quality, GDT, and inspection topics - **Est. $30k – Priority medium.** We recommend exploring a combination of margin funds and opportunities through the Grants Office.

3. Vent and power for donated wire EDM in Router room – **Est. $1500 - Priority medium.** As this is a-one-time expenditure, we recommend working with your Division Dean to access margin dollars.

4. Begin process to replace 12 manual lathes, all apx. 30 years old – **Est. $10k each – Priority medium.** Due to the cost, this might take a number of years, we recommend working with your Division Dean to access margin dollars.

5. Replace existing large manual surface grinder with smaller, safer model – **Est. $10k – Priority medium.** As this is a-one-time expenditure, we recommend working with your Division Dean to access margin dollars.

6. Purchase 4/5 axis trunnion for Haas mill to support 4/5 axis mill training – **Est. $25k – Priority low.** As this is a-one-time expenditure, we recommend working with your Division Dean to access margin dollars.

**Closing remarks**

We thank you for your creativity and tireless efforts to maintain the relevance of your program. Conducting reviews of student retention and success and seeking feedback from your Industry Advisory Committee, followed by programmatic adjustments is an indication of your dedication and commitment to your students, the Department, and your profession. Your feedback loop of assessment to program updates is to be commended.

Administrative Response submitted by Jeff S. Triplett on behalf of the Deans of Instruction and Dean of Academic Affairs.

Birgitte Rylsinge  
Jeff Triplett  
Craig Kolins  
Scott Huff  
Kendra Cawley