Department Annual Report
2012-2013

Manufacturing Department
Plastics Manufacturing Technology
935, 945

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2012-2013
Department Information

Current year goals
Increase partnerships with area manufacturers

Recruit and market the program to area high schools and skills centers.

These goals were achieved as two two partnerships were developed between Amway and Custom Profile manufacturers.
High school job fairs were also attended to promote the Plastics program along with Coopersville High School MEPP program.

Goals for next year
Develop an articulation agreement with Vanburen Intermediate School District for plastics.
Continue to recruit and market the program to area high schools and skills centers.
Work to get the 797 and 798 program codes back into the transfer guide.

Internal collaborations and partnerships
Worked with the Advanced Manufacturing Partnership (AMP) and Growing Education in Manufacturing (GEM) programs to schedule welding classes for the cohort groups.

External collaborations and partnerships
The Plastics program works closely with their Advisory Boards and the Manufacturing Engineering Partnership Program (MEPP) program in Coopersville Public High School.

Departmental needs for support from other departments within the college
The department works closely with admissions and counseling.

Program accreditation Updates
N/A

Description of departmental advising plan and outcomes
Student advising is a continuous process by department faculty. The technology area faculty are the best advisors to our student since they know what will be required of the students in industry. Faculty advise students during their office hours as well as during class periods, where appropriate. The department advising plan is on the webpage at grcc.edu/manufacturing

Updates About Student Organizations and Achievements
The program continues to be active with the Society of Plastics Engineers. Two students received scholarships through the

Other department updates
N/A

Faculty & Staff

Departmental Professional Development Activities (Contractual Obligations for Departmental Faculty Development/6 hours)
Margaret Sesselmann provided training on the new carp format being used currently at GRCC. She also went through her shortcuts and lessons learned on how to make the changes quickly.

Lynnae Selberg and Erin Busscher provided training on the use of My Degree Path and how we can use the program to assist students with their academic plan.

Two representatives from Amatrol provided training on their E-learning products for many of the technology areas. We have requested a site license for the upcoming school year and will implement their product into more areas. The Amatrol representatives also showed us how to request and use temporary access to evaluate E-learning content that they support.

Faculty Professional Development Activities- Year End Summary
Troy Walwood completed his Masters of Arts degree from Western Michigan University.

Faculty Development Plans for Upcoming Year
The faculty will plan for next year will include Academic Program Review training. Katie Daniels will also give more in-depth training on how to do assessment projects, how to document the data, and how to understand the results. We will also have more training on the Faculty Evaluation System.

EOL/Release Time Work
Mike Kiss is given release time as the Apprenticeship Coordinator at GRCC. The apprenticeship program continues to add student’s into a variety of technology area classes and is a feeder into several degree programs.

Faculty & Staff Accomplishments/Awards
N/A
Program Data - Perkins Indicators

5P2: Student Participation in Nontraditional Fields
S:\School of Workforce Development\Workforce Development\PERKINS\CORE INDICATOR LEVELS\2011-2012\Applied Technology
Program performance levels were 0.0% and did not meet the state standard

2P1: Credential, Certificate, or Degree Attainment
Program performance levels were 0.0% and did not meet the state standard

5P1: Student Completion in Nontraditional Fields
Program performance levels for 5P1 were 14.92% below the state standard.

4P1: Student Placement
The program exceeded the state performance level by 30%.

3P1: Student Retention and Transfer
The program performance levels for 3P1 were 8.95% higher than the state standard.

1P1: Technical Skills Attainment
N/A

Summary
The department continues to encourage potential female students into the program. The department encourages certificate and degree attainment while stressing the importance of these achievements during class and student counseling sessions.

Curriculum

Course Improvement Projects
MN 244 and MN 220 lab packets were updated.

Program Improvement Projects
N/A

Course Document (CARP) Updates completed this year
### Assessment of Student Learning

#### Program Learning Outcome(s) assessed this year

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Program Outcomes</th>
<th>Student Learning Outcomes at the Program Level and Associated ILOs</th>
<th>Assessment Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastics Technology</td>
<td>Prepare students for employment in the plastics field by providing learning opportunities that are in line with and meet industrial expectations/standards. Prepare students for higher/transfer education by providing learning opportunities that establish required foundational skills.</td>
<td>Students will be able to demonstrate proper manufacturing techniques in plastics. (Critical thinking ILO)</td>
<td>Student Learning Outcome to be assessed &amp; specific objective/competencies (if applicable)/ILO to be assessed: Students will be able to demonstrate proper manufacturing techniques in plastics. (Critical thinking ILO)</td>
</tr>
</tbody>
</table>
<pre><code>                                                                                                                                                                                                                                                                              |                                                                                                 | Assessment Project description: Students will work professionally in a cooperative atmosphere. (Personal responsibility ILO)                                                                                       |
                                                                                                                                                                                                                                                                              |                                                                                                 | Assessment Methods: Direct/Indirect Measures of Student Learning                                                                                                                                            |
</code></pre>
                                                                                                                                                                                                                                                                                  |                                                                                                 | Student observation to determine proper
set up techniques are followed.

Data Collection Strategies

Rubric indicating the three part characteristics required for the assessment.

Data Analysis/Reporting Strategies

Department faculty will analyze student results to determine whether student results are acceptable. Determine what changes in instruction could improve the results in the next assessment.

Assessment Timeline

Assessment to be completed in MN220, both semesters.

**Measures of Student Learning**

Students will be required to set up an injection molding machine to the proper parameters to produce parts that exhibit flash, short shot and an acceptable part.

**Initial Data and Findings**

Students were graded on their ability to complete the required project. All were successful in operating the equipment but many took extra time and coaching to understand the machines.

**Curricular or Pedagogical Changes Implemented**

More time will be spent on machine controls and how to operate the equipment before running the test again. The changes will be implemented during the next school year and assessed.

**Data and Findings (post improvement/change)**

N/A