Department Annual Report

2012-2013

Manufacturing

Quality Science

939-940

Document Prepared By:

John M Doneth

2012-2013
Department Information

Current year goals

The current year goal was to offer classes in the proper sequence.

This goal was not reached. The low enrollment numbers made it impossible to run classes according to the Quality Science curriculum.

Goals for next year

Next year courses will be offered to help students finish the certificate program while it is phased out.
MiniTab software will be incorporated into MN253.

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 program works closely with the Advisory Board.

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

N/A

Other department updates

The advisory board for Quality does not see a need for the one year certificate program. The college will take steps to phase that out during the next year.
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
N/A

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
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.

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 for 2P1 were 513.07% above the state standard.

5P1: Student Completion in Nontraditional Fields

Program performance levels for 5P1 were 20.38% above 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 8.1% under 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
N/A

Program Improvement Projects
N/A

Course Document (CARP) Updates completed this year
N/A

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>
</table>
| Quality Science | Prepare students for employment in the quality 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. | Students will obtain a knowledge base of quality theory to enhance their knowledge of quality systems and their uses. (Critical thinking ILO)                                             | Students Learning Outcome to be assessed & specific objective/competencies (if applicable)/ILO to be assessed:  Students will identify and properly use experimental procedures in product manufacturing. (Critical thinking ILO)  
Assessment Project description: Students will produce a X Bar R chart used in industry. Students will be given the data to input into the chart and evaluate the results.  
Assessment Methods:  
Direct/Indirect Measures of Student Learning  
Direct observation during the assessment. Evaluation of the finished report for accuracy.  
Data Collection Strategies  
Evaluation of the proper use of the data given.  
Data Analysis/Reporting Strategies  
Students scores evaluated to determine student learning. Evaluate results for curriculum improvement. |
### Measures of Student Learning
Students will produce a X Bar R chart used in industry. Students will be given the data to input into the chart and evaluate the results.

### Initial Data and Findings
This assessment demonstrated that students do understanding the main concepts of SPC, and the mechanics of chart development and interpretation. The exercise of calculating control limits and plotting the data was clearly understood by all thirteen participants.

### Curricular or Pedagogical Changes Implemented
The assessment will be continued next year with changes due to the fact that everyone achieved the desired outcomes. For next year, more emphasis will be place on the concepts of variation reduction and the importance of selecting proper control characteristics with the X bar and R charts.

### Data and Findings (post improvement/change)
N/A