University of Minnesota Crookston
Assessment of Student Learning

5/15/2021

Major: BMM Manufacturing Management

Prepared by: Dr. Abdulaziz Ahmed

	rubric			Data Collection Frequency	Reporting Timeframe	Assessment Method & Procedures	Rubric results			Future goals and plans
Program Learning Outcome 1: Critical Thinking and Problem Solving Skills	Does Not Meet Expectations 1	Meets Expectations 2	Exceeds Expectations 3				Does Not Meet Expectations 1	Meets Expectations 2	Exceeds Expectations 3	
Outcome 1.1. Solve assigned production and service related problems and resolve issues by building consensus in groups and disseminating the outcomes with result tracking.	Unable to solve production problems and present results	Able to solve production problems and present results	Show outstanding ability to solve production problems and present results	Bi-annual	2020	1. Assignment 6 in MGMT3250 is used to evaluate this outcome since it involves the most common production problem such as Master Production Planning and Inventory Control. 2. Students who got B- or more in this assignment are considered as Excellent. 3. Students who got Less than B-, but passed the assignments are considered as acceptable 3. Students who failed in this assignment need improvements. 5. The sample size is 25 and the course was offered in the fall of 2019.	16%	24%	60%	1. Despite the video recording I did to help students working on the assignment used to evaluate this outcome, the percentage of students who exceeded the expectation is less than last year. However, the percentage of students who met the expectations is better than last year. This mean that the plan last year helped the average students. 2. The plan next year is to have online office hours with online students to help them with such problems.
Program Learning Outcome 2: Real life Application	Does Not Meet Expectations 1	Meets Expectations 2	Exceeds Expectations 3				Does Not Meet Expectations 1	Meets Expectations 2	Exceeds Expectations 3	
Outcome 2.1. Assess the ability of students to implement continuous improvement tools and methodology(PDCA, LEAN, Six Sigma, etc.) for ongoing increase of profitability.	Unable to implement continuous improvement tools in real-life applications	Able to implement continuous improvement tools in real-life applications	Show Excellent ability while implementing continuous improvement tools in real-life applications	Bi-annual	2020	1. All Assignments of BM 3025 are used to assess this learning objective. 2. Students who got B- or more in this assignment are considered as Excellent. 3. Students who got Less than B-, but passed the assignments are considered as acceptable 3. Students who failed in this assignment need improvements. 5. The sample size is 25 and the course was offered in the fall of 2019.	22%	4%	74%	1. The percentage of students who did not meet the expectation is high. All those students did not do most of the course assignments. 2. My plan is work with students success center and ask their help to work with students who ignore assignments
Program Learning Outcome 3: Communication Skills in Manufacturing Environme	Does Not Meet	Meets Expectations	Exceeds				Does Not Meet	Meets	Exceeds	
Outcome 3.1. Respond to quality assessment reports by taking appropriate action.	Unable to take actions based on quality assessment reports	Able to take actions based on quality assessment reports	Show enhanced ability to respond take actions based on a quality report	Bi-annual	2021	1. Assignments 3, 4 in BM 3034 are used to evaluate this outcome. 2. These assignments involve various quality tools that can be used in response to a quality report. 3. Such tools are WHY-WHY diagram, cause and effect diagram, etc. 2. Students who got B+ or more in this assignment exceed expectation. 3. Students who got less than B, but passed the assignments meet expectation. 3. Students who failed in this assignment do not meet expectation. 5. The sample size is 23 students and the course was offered in the summer of 2019,2020.	4%	56%	39%	The performance of students is better comparing to the last time this outcome was assessed, which was in 2019. The 4% of student who did not meet the expectation represents only one student. The recommendation is to continue monitoring students' performance with respect to this outcome.
Program Learning Outcome 4: Communication Skills in Manufacturing Environme	Does Not Meet Expectations 1	Meets Expectations 2	Exceeds Expectations 3				Does Not Meet Expectations 1	Meets Expectations 2	Exceeds Expectations 3	

	Does Not Meet	Meets Expectations	Exceeds				Does Not Meet	Meets	Exceeds	
Outcome 4.1. Initiate and manage projects to ensure timely completion within the constraints of facilities, equipment and staffing.	Unable to manage a project with a goal of saving costs and improving quality	Able to manage a project with a goal of saving costs and improving quality	Show outstanding ability to manage a project with effective cost saving and noticeable quality improvement	Bi-annual	2020	1. The course project in BM 3025 is used to evaluate this outcome, since it is implemented in either service or manufacturing company throughout a whole semester. 2. The project is composed of two parts: course proposal and final report. A presentation is required as well. 3. Students with average B - or more in both the proposal and final report are beyond expectations. 4. Students with average Less than C+ in this project , but did not get F meet the project 5. Students who failed in need improvements 5. The sample size is 23 and the course was offered in the fall of 2019.	32%	36%	32%	1. 32% of the class did not meet the expectation which is high percentage. It is also higher than last year. 2. All the students who did not meet the expectation did not submit the final project at all, despite of the reminder emails I sent to the whole class. 3. The plan next year is to work with the academic success center to help those students who have did not do the course work.

Program Learning Outcome 5: Critical Thinking and Problem Solving Skills

	Does Not Meet	Meets Expectations	Exceeds				Does Not Meet	Meets	Exceeds	
Outcome 5.1. Initiate and manage maintenance scheduling to optimize productivity and reduce process variability.	Unable to increase productivity by optimizing process schedule and reducing product variability	Able to increase productivity by optimizing process schedule and reducing product variability	Show exceptional ability increasing productivity by optimizing process schedule and reducing product variability	Bi-annual	2021	1. Assignments 7&8 in MGMT 3250 are used to evaluate this outcome. 2. These assignments involve process scheduling and quality improvement. 2. Students who got B+ or more in this assignment exceed expectation. 3. Students who got less than B, but passed the assignments meet expectation. 3. Students who failed in this assignment do not meet expectation. 5. The sample size is 21 students and the course was offered in the spring of 2021.	0.00%	35.00%	65.00%	Comparing to the last time this outcome was assessed, it is clear that students performance improved as the percentage of student who did not meet expectation reduced from 3.4% to 0%. The recommendation is to continue monitoring students' performance with respect to this outcome.

Program Learning Outcome 6: Real Life Application

	Does Not Meet	Meets Expectations	Exceeds				Does Not Meet	Meets	Exceeds	
Outcome 6.1. Implement appropriate task oriented software and hardware choices to communicate ideas and results clearly.	Unable to use needed software	Able to use appropriate software when it is needed.	Show outstanding ability when it comes to using software while solving problems	Bi-annual	2020	1. Assignments 4-6 of BM3025 are used to evaluate this outcome since students need to use software such as Minitab to work on them. 2. Students with Average A in these assignments are beyond expectations 3. Students with average Less than B+ in these assignments , but did not get F meet the expectations 3. Students who failed in this assignments need improvements 5. The sample size is 25 and the course was offered in the fall of 2018	9%	13%	78%	1. Comparing with last year, This year's performance is better than last year. 2. The plan is to keep moving students' performance by providing having virtual office hours and working with those who struggle with such assignments.