

Course Assessment Report
Washtenaw Community College

Discipline	Course Number	Title
Business Management	181	BMG 181 08/13/2025- Introduction to Supply Chain Management
College	Division	Department
Business and Computer Technologies	Business and Computer Technologies	Business
Faculty Preparer		Barry McNeil
Date of Last Filed Assessment Report		

I. Review previous assessment reports submitted for this course and provide the following information.

1. Was this course previously assessed and if so, when?

No

2. Briefly describe the results of previous assessment report(s).

3.

4. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

5.

II. Assessment Results per Student Learning Outcome

Outcome 1: Identify the supply chain ecosystem including the players, their roles, and corporate social responsibility.

- Assessment Plan
 - Assessment Tool: Departmental Exam
 - Assessment Date: Fall 2020
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students

- How the assessment will be scored: Departmentally developed test that is computer scored
- Standard of success to be used for this assessment: 75% of students achieve 70% or better.
- Who will score and analyze the data: Auto-scored using Blackboard (or other LMS) with results analyzed by lead instructor and shared with other department members.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2024	2025, 2024	2023

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
175	174

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

N/A – All students that were enrolled were assessed. One student failed to take the Unit Test but did not withdraw.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Two options for this course are available to students. Both online and face-to-face modalities were used in the assessment process. Some distinction was made between the two modalities which provided interesting differences in the overall grades of the students as well as how they performed in the individual examinations. This will be explored in the findings.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The process used was a multiple-choice exam consisting of 50 questions with a one-hour duration to complete. Each question is typically worth two points. Some questions have multiple answers which allow for partial points to be assessed if part of the answer was correct.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Unit 1 Test– 174 students attempted the quiz with an overall average of 93.4%. All 174 students scored higher than 70%.

Differentiating between the online students and the face-to-face students, there was an approximate two percentage point difference with the face-to-face students scoring better. This, I believe is due to the additional material that is incorporated into the face-to-face classes, the games organized around the learning objectives and the practice quizzes that are practiced live in the classroom with the student body working as a group to come to the right answer. Whilst this is also available to online students, the findings are that these students do not take advantage of the practice quizzes that are available.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

Both modality groups scored relatively higher than the standard of success. As long as the material is consumed and retained, all questions are driven from the coursework material. As such, students' scores were solid across the board.

The high scores were 100% and the low scores 75% with most students ranging from the high 80th percentile to middle 90th percentile.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

In terms of continuous improvement, it is important the course and the tests reflect the external industry standard exam to which the course is directed. Because students get a chance to sit for the external exam, the course material and test questions need to be aligned. As the external examination body updates and refreshes its material, the same need to be done with the WCC course. This is an ongoing activity aligned with when the new updated textbook is released.

In 2024, the course was adapted to bring in more examples and knowledge sharing around the so called 4.0 Technologies. This reflected the updated 4.0 edition of the industry standard textbook. As a textbook is not required for this course the alignment between the two needs to be continuously adjusted.

Outcome 2: Recognize various warehouse layouts, safety procedures, operational processes, and quality control principles needed to ensure customers receive the right product at the right time, place, price, and condition.

- Assessment Plan
 - Assessment Tool: Departmental Exam
 - Assessment Date: Fall 2020
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally developed test that is computer scored
 - Standard of success to be used for this assessment: 75% of students achieve 70% or better
 - Who will score and analyze the data: Auto-scored using Blackboard (or other LMS) with results analyzed by lead instructor and shared with other department members.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2024	2024, 2025	2023

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
175	170

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Five students failed to take the second and or third test associated with this learning Unit. These students did not withdraw from the course and ultimately ended with varying grades due to too many assessments missed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Two options for this course are available to students. Both online and face-to-face modalities were used in the assessment process. Some distinction was made between the two modalities which provided interesting differences in the overall

grades of the students as well as how they performed in the individual examinations. This will be explored in the findings.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The process used was a multiple-choice exam consisting of 50 questions with a one-hour duration to complete. The test automatically times out at the end of 60 minutes. Students have a counter that shows the time remaining as they complete the test. Each question is typically worth two points. Some questions have multiple answers which allow for partial points to be assessed if part of the answer was correct.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Unit 2 and 3 Tests. 170 students attempted the test with an overall average of 90.2% for online students and 93.14 % for face-to-face students. The overall blended result was an average of 91.68 %. All students who attempted the exam scored above 70% , with the exception of one student who scored 68.8%, on their Unit 2 test. We saw the same +/- two percentage point variation as we did in the Unit 1 test between the online and face-to-face modalities. The same explanation can be put forward to explain this variation as was covered in the first assessment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The overall average across all students dropped by two percentage points and one student did not hit the 70% score. The rest of the students scored between 70% and 100%. Perhaps the only explanation for this would be that these two tests are more technical in nature and require a deeper level of understanding of the supply chain. Especially with the Warehouse processes and associated connectedness of the processes, there is a higher level of math and computation skill required to in order to be successful. With that said, the overall results were still very strong and indicate a good learning methodology linked to the tests.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

As with the first outcome, it is important to keep the course, and the tests aligned with the external exam that the students have an option to take as part of this BMG

181 course as well as the BMG 182 course. Continued updates are required as updated course material is delivered from the external assessment body. In a little more granular detail, there are some questions in units 2 and 3 that look at fire hazards, fire safety and dangerous goods. Feedback from the students and results against these specific questions suggest work is needed to refine and have further detail in these key areas.

Outcome 3: Identify various types of teams and the related communication and workplace behavior needed to work effectively throughout the supply chain.

- Assessment Plan
 - Assessment Tool: Departmental Exam
 - Assessment Date: Fall 2020
 - Course section(s)/other population: All sections
 - Number students to be assessed: All students
 - How the assessment will be scored: Departmentally developed test that is computer scored.
 - Standard of success to be used for this assessment: 75% of students achieve 70% or better
 - Who will score and analyze the data: Auto-scored using Blackboard (or other LMS) with results analyzed by lead instructor and shared with other department members.

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2024	2025, 2024	2023

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
175	166

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

Nine students failed to take the fourth test associated with this learning Unit. These students did not withdraw from the course and ultimately ended with varying grades due to too many assessments missed.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

Two options for this course are available to students. Both online and face-to-face modalities were used in the assessment process. Some distinction was made between the two modalities which provided interesting differences in the overall grades of the students as well as how they performed in the individual examinations. This will be explored in the findings.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

The process used was a multiple-choice exam consisting of 50 questions with a one-hour duration to complete. The test automatically times out at the end of 60 minutes. Students have a counter that shows the time remaining as they complete the test. Each question is typically worth two points. Some questions have multiple answers which allow for partial points to be assessed if part of the answer was correct.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Unit 4 Test. 166 students attempted the test with an overall average of 90.35 % for online students and 92.72 % for face-to-face students. The overall blended result was an average of 91.53 %. All students who attempted the exam scored above 70%, with the exception of one student who scored 44.95 %. We saw the same +/- two percentage point variation as we did in the other tests between the online and face-to-face modalities. The same explanation can be put forward to explain this variation as was covered in the first assessment.

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The overall average across all students increased by just less than two percentage points compared with the average across Unit tests 2 and 3. The average here was in line with the average for the unit 1 test. The Unit 4 module is less technical, and this accounts for the increase in overall scores. Overall results were very strong with only one student failing to meet the 70% threshold and indicate a good learning methodology linked to the tests.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

Unit 4 is more of a general communication unit but does focus on areas of project management and how to operate successfully within that team environment. The Unit also aligns with the external assessment exam thus keeping the core the same is important for those students opting to take the external exam. Improvement areas would be to look at more specific supply chain team environments and a greater emphasis on matrix reporting lines as these are becoming more prevalent in most supply chain organizations where communication across multiple disciplines is critical in decision making.

III. Course Summary and Intended Changes Based on Assessment Results

1. Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

N/A

2. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

The course provides a solid base understanding of the world of supply chain management. It mirrors the course material of the Manufacturing Skills Standards Council (MSSC) which is a well-known external accreditation body providing core knowledge for the industry. Employers look at these accreditations and students that have passed this exam will more than likely make it through to the interview level. As such, the linkage between the WCC course and the MSSC should remain firmly in place.

Perhaps a better way of looking at the effectiveness of the course would be to review the statistics of those students that choose to take the external exam.

Just over one third of students taking the BMG 181 course decide to take the CLA – Certified Logistics Associate Exam. Of the 65 students that took the exam, 62 passed given a pass rate of 95.38 % which is exceptional. Further the average pass rate for the same data set is 79.90 % against a pass score of 69.50%, meaning students on average are passing at a range 10% higher than needed. The CLA Exam is fully proctored either online or at the testing center in the NL Building on campus. This would partially explain the gap of 10% versus the Testing scores for the four-unit tests. In discussion with students that have taken the external exam,

all have confirmed that there were not questions on the exam paper that we had not covered in the course.

The goal during the semesters used in this assessment has been to implement and increase the on campus, in person courses and students. Over the course of the semesters used, enrollment has increased by 133 % from 9 students to 21 students.

I was not overly surprised by any of the results. I was satisfied that similar patterns emerged across student groups both in the online and face-to-face modalities. The course will continue to be updated to ensure relevancy with changing trends within the industry (EG the 4.0 technologies) as well as staying current with governmental legislation.

3. Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

The assessment report will be sent to Jen Maitland (Department Chair) for review.

- 4.

Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Course Assignments	Expand test questions to better mimic MSSC Exam number of questions and duration	Better alignment with external exam set up	2026
Course Material	Provide students with additional detail on topics related to fire hazards, fire safety and dangerous goods.	These areas were identified as areas for improvement in student learning.	2026
Student Learning Outcome	Add a fourth learning outcome.	To assess each of the four benchmarks in the class using a distinct outcome.	2026

5. Is there anything that you would like to mention that was not already captured?

No further observations

III. Attached Files

BMG 181 Assessment Data

Faculty/Preparer:	Barry McNeil	Date: 08/13/2025
Department Chair:	Jennifer Maitland	Date: 08/14/2025
Dean:	Eva Samulski	Date: 08/15/2025
Assessment Committee Chair:	Jessica Hale	Date: 08/24/2026