Academic Program Assessment
AY 2025-2026 [Due 6/1/26]

Program Name	Date Completed
Bachelor of Science in Mechatronics Engineering	**5/28/2026**
Report Completed By	Report Contributors
Prof. Nebojsa Jaksic, Ph.D., P.E.	**Drs. Bedoya-Valencia, Ansaf, Duong, Su, and Gupta**
Brief Statement of Program Mission and Goals	
The mission of the program is to create engineers (mechatronics engineers and industrial engineers) to satisfy the needs of local, regional, and global industry.	

Table I Closing the Loop

Report on at least one data-informed change to your curriculum during AY 2025-2026 that was implemented to improve student learning, in response to prior assessment cycles or other data.

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
A. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
B. What were the recommendations for change in the previous cycle?
We continuously reinforce the importance of learning python and other programming languages.
C. How were the recommendations for change acted upon?
An elective course on advanced programming using Python was offered. However, due to low enrollment, the course was cancelled.
D. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?
The change was not effective.

Enter Comments on Table I Closing the Loop Below
This outcome is scheduled for assessment in Spring 2029.

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
C. What were the recommendations for change in the previous cycle?
D. How were the recommendations for change acted upon?
E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?

Enter Comments on Table I Closing the Loop Below
This SLO is scheduled for assessment in Spring 2027.

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
3. an ability to communicate effectively with a range of audiences.
B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
C. What were the recommendations for change in the previous cycle?
Creation of posters and PowerPoint presentations will be addressed in a more formal fashion. Also, from our ABET SLO 3 assessment we claim that "Our technological culture, the use of communication tools, and university services are improving through many courses we teach and the university-wide activities. 5/29/2025"
D. How were the recommendations for change acted upon?
Posters were better defined (size, ratio of white surfaces, amount of text, figures, etc.) as well as PowerPoint presentations (rubric/recommendations).
E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?
Changes were effective resulting in more professional-looking posters and presentations.

Enter Comments on Table I Closing the Loop Below

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
C. What were the recommendations for change in the previous cycle?
D. How were the recommendations for change acted upon?
E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?

Enter Comments on Table I Closing the Loop Below
This SLO is scheduled for assessment in Spring 2029.

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives.
B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
C. What were the recommendations for change in the previous cycle?
D. How were the recommendations for change acted upon?
E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?

Enter Comments on Table I Closing the Loop Below
This SLO is scheduled for assessment in Spring 2027.

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
C. What were the recommendations for change in the previous cycle?
We discussed the inclusion of R and Python to use these tools to analyze large data sets. We are planning to bring this improvement to the next meeting with the Industrial Advisory Board.
D. How were the recommendations for change acted upon?
At our meeting with the Industrial Advisory Board, we asked about their preferences. They did not find much difference in using R or Python.
E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?
No changes were made. We decided not to change our curriculum in favor of R since Python has a larger user base.

Enter Comments on Table I Closing the Loop Below

A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?
Spring 2025
C. What were the recommendations for change in the previous cycle?
D. How were the recommendations for change acted upon?
E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?

Enter Comments on Table I Closing the Loop Below
This SLO is scheduled for assessment in Spring 2028.

Program Name	Date Completed
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Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2025-26

1. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
E. Explain the expected proficiency level and proportion of students who should reach this level.
F. Provide Assessment results and number of students who met defined proficiency level.
G. Describe what the results or trends indicate about student performance.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.

Enter Comments on Table II AY 2026 Assessment Below
This SLO is scheduled for assessment in Spring 2029.

A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
E. Explain the expected proficiency level and proportion of students who should reach this level.
F. Provide Assessment results and number of students who met defined proficiency level.
G. Describe what the results or trends indicate about student performance.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.

Enter Comments on Table II AY 2026 Assessment Below
This SLO is scheduled for assessment in Spring 2027.

A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
3. an ability to communicate effectively with a range of audiences.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
We reviewed the assessment of this SLO from individual classes.
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
All students in each of the classes were assessed, using specific assignments in each class.
E. Explain the expected proficiency level and proportion of students who should reach this level.
For EN 215 course, the goal was to have 80% of students to score at least 80% or better on a given communication task. For EN 487/488 course, the goal was to have 80% of students to score at least 80% or better on posters and presentations.
F. Provide Assessment results and number of students who met defined proficiency level.
The goal was met. 100% of the students were proficient, scoring 80% or higher.
G. Describe what the results or trends indicate about student performance.
Student performance is satisfactory for this SLO. However, new knowledge and skills stemming from AI revolution (ethical and efficient use of LLMs and Gen AI) need to be adequately addressed to prepare our students for rapidly changing work environment.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.
We are planning to include ML, LLM, prompt engineering, and agentic AI topics in the mechatronics engineering curriculum as part of our continuous improvement process.

Enter Comments on Table II AY 2026 Assessment Below

A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
E. Explain the expected proficiency level and proportion of students who should reach this level.
F. Provide Assessment results and number of students who met defined proficiency level.
G. Describe what the results or trends indicate about student performance.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.

Enter Comments on Table II AY 2026 Assessment Below
This SLO is scheduled for assessment in Spring 2029.

A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
E. Explain the expected proficiency level and proportion of students who should reach this level.
F. Provide Assessment results and number of students who met defined proficiency level.
G. Describe what the results or trends indicate about student performance.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.

Enter Comments on Table II AY 2026 Assessment Below
This SLO is scheduled for assessment in Spring 2027.

A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
We reviewed the assessment of this SLO from individual classes
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
All students in each of the classes (EN 375 and EN 443) were assessed, using specific assignments in each class.
E. Explain the expected proficiency level and proportion of students who should reach this level.
In the EN 443 Quality Control and Reliability course, a permanent faculty has been teaching the class for the last 5 years. Students in this course should be able to use the data sets provided to analyze the data and propose linear regression models to predict the behavior of a manufacturing system by using both Minitab and Excel. At least 67% of the students should score 67% or more on design of experiments (part 1 of question 1), analyzing data (parts 2 and 3 of question 1), and interpreting data and drawing conclusions by using a linear regression model (part 4 of question 1).
F. Provide Assessment results and number of students who met defined proficiency level.
The goal was met by all students in all assessed courses.
G. Describe what the results or trends indicate about student performance.
Students are successful with this SLO. Maybe it is time to raise the bar.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.
Development of appropriate experiments as well as analyses and interpretation of data could be enhanced by using ML algorithms.

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A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
B. Semester and year this SLO was previously reported on before this cycle.
Spring 2025
C. Describe the assessment method for this SLO(s).
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
E. Explain the expected proficiency level and proportion of students who should reach this level.
F. Provide Assessment results and number of students who met defined proficiency level.
G. Describe what the results or trends indicate about student performance.
H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.

Enter Comments on Table II AY 2026 Assessment Below
This SLO is scheduled for assessment in Spring 2028.