



Assessment Report

All Years

Program (CIDS) - Data Analytics (MS) - 51120

Program Information

Department

Applied Data Science

College

College of Information Data and Society

Is your Program accredited?

No

Contact Person

Simon Shim

Contact Email

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Provide a link where your assessment data are available to stakeholders on your departmental/program website. If currently not published, provide a plan for future dissemination.

<https://www.sjsu.edu/assessment/nuventive/faq.php>

How are your PLOs and ULGs communicated to students (e.g. websites, syllabi, promotional material)?

- Communicated to students during orientation.
- Link to Program Learning Outcomes (PLOs) on program website: www.sjsu.edu/msda

Do students have an opportunity to provide feedback regarding PLOs and/or the assessment process?

Yes

If students have the opportunity to provide feedback for PLO assessment, elaborate briefly.

Students respond to the survey of PLO's and the survey results were discussed in faculty meetings

Annual Executive Summary

2023 (Jan - Dec)

Annual Executive Summary

Program Assessment Coordinator

Simon Shim

Summary of Assessment Findings

Describe overall assessment findings and the program's interpretation of the assessment results

The benchmarks of all PLO's have been achieved.

Dissemination of Findings

Briefly describe the individuals or committee responsible for reviewing and interpreting assessment data

The department chair collects the data, summarizes the findings, and recommends follow-up actions

Briefly describe the process for sharing and discussing assessment findings with program faculty

The assessment findings have been shared and discussed in faculty meetings.

Program Improvements Based on Assessment

Based on data collected this year, what changes are being considered or planned for the program?

Curriculum improvements have been discussed in faculty meetings. Research on technology trends and workforce demands has been conducted. The department submitted catalog change proposals in Fall 2023 for implementation starting in Fall 2024. These proposals include new curriculum specialization, structure, new courses, enhanced course descriptions, and streamlined course prerequisites.

Based on this year's findings, what (if any) changes are planned for the assessment process?

Continue the current assessment process

Program improvements made in the last year

Curriculum Improvements

Description of "Other Improvements"

Enhance the curriculum structure and course contents

Goals for the coming year

Perform and evaluate the curriculum changes to make sure the desired learning objectives are met and to find areas that need improvement. Need to keep track of the progress and efficiently address any concerns.

Is this summary report complete?

Yes - Submit

2022 (Jan - Dec)

Annual Executive Summary

Program Assessment Coordinator

Lee Chang

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Annual Executive Summary

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Based on this year's findings, what (if any) changes are planned for the assessment process?

Continue the current assessment process.

Program improvements made in the last year

Curriculum Improvements

Goals for the coming year

Enhance the curriculum structure and course contents.

Is this summary report complete?

Yes - Submit

2020 (Jan - Dec)

Annual Executive Summary

Program Assessment Coordinator

Lee Chang

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Continue the current assessment process.

Program improvements made in the last year

Curriculum Improvements

Goals for the coming year

Enhance the curriculum structure and course contents.

Is this summary report complete?

Yes - Submit

Program (CIDS) - Data Analytics (MS) - 51120

PLO1

Program Learning Outcome: Integrate multidisciplinary knowledge to engage in practical data analytics projects, from analyzing requirements to managing data, building models, presenting results, and assessing societal impacts.

PLO Status: Active

Assessment Schedule: 2023 - 2024

If your assessment calendar is based on a semester system, indicate year and semester in this field (optional):

Mapping

University Learning Goals: (X - Highlight to Align)

- **Goal 2:** 2 - Specialized Knowledge (X)
- **Goal 4:** 4 - Integrative Knowledge and Skills (X)

Curriculum Mapping

DATA 298B (3)

Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Other Assessment Type (if applicable):</p> <p>Assessment Method: Assignments, reports and presentations</p> <p>Benchmark: 100% of students meet the expectations of this PLO.</p>	<p>Submission Date: 05/01/2024</p> <p>Assessment Result Summary: 100% of students achieved the PLO. Benchmark is 80%. Thus, this PLO is achieved.</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 40</p> <p>Number of Students Achieving the PLO: 40</p> <p>Optional Rich Text Field: Demonstrated sufficient knowledge to engage in the total lifecycle of data analytics projects List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298B If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria: DATA 298B applied the assessment methods of assignments, reports, and presentations to evaluate the ability to demonstrate sufficient knowledge to engage in practical data analytics projects, from analyzing requirements to managing data, building models, and presenting results.</p> <p>Closing the Loop and Continuous Improvement Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly: No action is proposed in the last year's report. Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?:</p>

Program (CIDS) - Data Analytics (MS) - 51120

Assessment Method	Assessment Result Summary

PLO 2

Program Learning Outcome: Identify, use, and evaluate current and emerging multidisciplinary data analytics technologies and tools.

PLO Status: Active

Assessment Schedule: 2023 - 2024

If your assessment calendar is based on a semester system, indicate year and semester in this field (optional):

Mapping

University Learning Goals: (X - Highlight to Align)

- **Goal 2:** 2 - Specialized Knowledge (X)
- **Goal 4:** 4 - Integrative Knowledge and Skills (X)

Curriculum Mapping

DATA 245 (2), DATA 298A (3)

Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Other Assessment Type (if applicable): DATA 245 - Direct - Course Embedded Work</p> <p>Assessment Method: DATA 298A - Assignments, reports and presentations.</p> <p>Benchmark: 100% of students meet the expectations of this PLO.</p> <p>Optional Rich Text Field: DATA298A Workbook 2 and Project Report: 28 students achieved > 80%</p>	<p>Submission Date: 05/01/2024</p> <p>Assessment Result Summary: 100% of students achieved the PLO from DATA 298A. Benchmark is 80%. Thus, this PLO is achieved.</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 49</p> <p>Number of Students Achieving the PLO: 49</p> <p>Optional Rich Text Field: All DATA 298A students meet the PLO. Some DATA 245 students needed to strengthen their mathematical backgrounds.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298A, DATA 245</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: DATA 245 applied the assessment methods of assignments, exams and projects to evaluate the application of machine learning methods to classify data, implement algorithms to solve problems. DATA 298A applied the assessment methods of assignments, reports and presentations to evaluate multidisciplinary data analytics technologies and machine learning models, review the contents and organization of reports, and evaluate the effectiveness of presentations."</p> <p>Closing the Loop and Continuous Improvement Please review the action items proposed in your previous report(s). Did the implementation of these</p>

Program (CIDS) - Data Analytics (MS) - 51120

Assessment Method	Assessment Result Summary
	<p>action items affect or impact your data and report this year? Please explain briefly.: Quite a few students felt uncomfortable with math.</p> <p>Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: Submission Date: 06/15/2021 Action Item: Appoint ISA's to prepare software tools and conduct tutorial sessions.</p> <p>- Submission Date: 04/20/2022 - Status Update: The department has appointed ISA's to prepare software tools and conduct tutorial sessions since Fall 2021.</p> <p>Submission Data: 05/01/2023 Action Item: Strengthen students' mathematical backgrounds by enhancing the prerequisite courses in Fall 2024.</p>

PLO 3

Program Learning Outcome: Apply effective oral and written communication skills necessary to professional work including collaboration and presentation to multidisciplinary audiences.

PLO Status: Active

Assessment Schedule: 2023 - 2024

If your assessment calendar is based on a semester system, indicate year and semester in this field (optional).:

Mapping

GWAR Learning Outcomes: (X - Highlight to Align)

- **Goal 1:** Produce discipline-specific written work that demonstrates upper-division proficiency in language use, grammar, and clarity of expression (X)
- **Goal 2:** Explain, analyze, develop, and criticize ideas effectively, including ideas encountered in multiple readings and expressed in different forms of discourse (X)
- **Goal 3:** Organize and develop essays and documents for both professional and general audiences (X)
- **Goal 4:** Organize and develop essays and documents according to appropriate editorial and citation standards (X)
- **Goal 5:** Locate, organize, and synthesize information effectively to accomplish a specific purpose, and to communicate that purpose in writing (X)

University Learning Goals: (X - Highlight to Align)

- **Goal 2:** 2 - Specialized Knowledge (X)
- **Goal 4:** 4 - Integrative Knowledge and Skills (X)

Curriculum Mapping

DATA 298B (3)

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Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Assessment Method: Assignments, reports and presentations.</p> <p>Benchmark: 90% of students meet the expectations of this PLO.</p>	<p>Submission Date: 04/27/2024</p> <p>Assessment Result Summary: 90% of students met the PLO3 > 80%</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 40</p> <p>Number of Students Achieving the PLO: 36</p> <p>Optional Rich Text Field: This PLO is assessed using Project Demos 1 and 2 and the final project demo.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA298B</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: This PLO is assessed using Project Demos 1 and 2 and the final project demo.</p> <p><u>Closing the Loop and Continuous Improvement</u> Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: All teams except one team (4 students) in the final project have demonstrated effective written and oral communication skills on their project</p> <p>Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: No action is recommended</p> <hr/> <p>Submission Date: 05/01/2023</p> <p>Assessment Result Summary: 94.8% of students achieved the PLO. Benchmark is 80%. Thus, this PLO is achieved.</p> <p>Reporting Period: 2022 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 58</p> <p>Number of Students Achieving the PLO: 55</p> <p>Optional Rich Text Field: Three DATA 298B students didn't complete the master project in time.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298B</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: DATA 298B applied the assessment methods of assignments, reports and presentations to evaluate the effective written and oral communication skills</p> <p><u>Closing the Loop and Continuous Improvement</u> Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: Increased the the coverage of project demonstration styles and skills is one of the factors that increase the percentage of students achieved the PLO.</p> <p>Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: Submission Date: 06/15/2021</p>

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Assessment Method	Assessment Result Summary
	<p>Action Item: Increase the coverage of project demonstration styles and skills in DATA 230 (Data Visualization).</p> <p>- Submission Date: 04/20/2022</p> <p>- Status Update: DATA 230 hss increased the the coverage of project demonstration styles and skills since Spring 2022.</p>

PLO 4

Program Learning Outcome: Perform research in applying data analytics to specific domains.

PLO Status: Active

Assessment Schedule: 2023 - 2024

If your assessment calendar is based on a semester system, indicate year and semester in this field (optional):

Mapping

GWAR Learning Outcomes: (X - Highlight to Align)

- **Goal 1:** Produce discipline-specific written work that demonstrates upper-division proficiency in language use, grammar, and clarity of expression (X)
- **Goal 2:** Explain, analyze, develop, and criticize ideas effectively, including ideas encountered in multiple readings and expressed in different forms of discourse (X)
- **Goal 3:** Organize and develop essays and documents for both professional and general audiences (X)
- **Goal 4:** Organize and develop essays and documents according to appropriate editorial and citation standards (X)
- **Goal 5:** Locate, organize, and synthesize information effectively to accomplish a specific purpose, and to communicate that purpose in writing (X)

University Learning Goals: (X - Highlight to Align)

- **Goal 2:** 2 - Specialized Knowledge (X)
- **Goal 3:** 3 - Intellectual Skills (X)

Curriculum Mapping

DATA 298A (3), DATA 294 (2)

Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Other Assessment Type (if applicable): DATA 270 - Assignments and reports</p> <p>Assessment Method: DATA 298A - Assignment, reports and presentations</p> <p>Benchmark: 100% of students meet the expectations of this PLO.</p>	<p>Submission Date: 04/27/2024</p> <p>Assessment Result Summary: 100% of students meet the expectations of this PLO.</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 49</p> <p>Number of Students Achieving the PLO: 49</p> <p>Optional Rich Text Field: 100% of students meet the expectations of this PLO.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298A, DATA 270</p>

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Assessment Method	Assessment Result Summary
	<p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: Assessed using workbook and final project report in DATA 298A</p> <p><u>Closing the Loop and Continuous Improvement</u> Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: No action is recommended. This PLO has been achieved.</p> <hr/> <p>Submission Date: 05/01/2023 Assessment Result Summary: 96.8% of students achieved the PLO. Benchmark is 80%. Thus, this PLO is achieved. Reporting Period: 2022 (Jan - Dec) Conclusion: Benchmark Met Number of Students Assessed: 94 Number of Students Achieving the PLO: 91 Optional Rich Text Field: Three DATA 270 students didn't demonstrate the ability to perform independent research in applying data analytics. List all courses where data was collected (eg: BIOL 111, ENGL 1A).: DATA 270 and DATA 298A If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: DATA 270 applied the assessment methods of assignments and reports to evaluate problem statements, research plans and reports, for the ability to perform independent research in applying data analytics. DATA 298A applied the assessment methods of reports and presentations to evaluate the quality of literature survey on data analytics and machine learning research. <u>Closing the Loop and Continuous Improvement</u> Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: The data shows it is necessary to continue the expansion of lecture on research to impact the coverage of research proposal development. Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: Submission Date: 06/15/2021 Action Item: Add a DATA 294 lecture on research methodologies and how to create insights - Submission Date: 04/20/2022 - Status Update: The department has replaced DATA 294 by DATA 270 as a required program course since Fall 2021. A lecture on research methodologies and how to create insights has been added since Fall 2021.</p>

PLO 5

Program Learning Outcome: Utilize quantitative skills from a rich foundation of essential knowledge to solve complex, dynamic, and practical data analytics problems

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in various professional domains.

PLO Status: Active

Assessment Schedule: 2023 - 2024

If your assessment calendar is based on a semester system, indicate year and semester in this field (optional):

Mapping

University Learning Goals: (X - Highlight to Align)

- **Goal 2:** 2 - Specialized Knowledge (X)
- **Goal 3:** 3 - Intellectual Skills (X)
- **Goal 5:** 5 - Applied Knowledge and Skills (X)

Curriculum Mapping

DATA 240 (2), DATA 298B (3)

Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Other Assessment Type (if applicable): DATA 240 - Direct - Course Embedded Work</p> <p>Assessment Method: DATA 298B - Assignments, reports and presentations</p> <p>Benchmark: 100% of students meet the expectations of this PLO.</p>	<p>Submission Date: 04/27/2024</p> <p>Assessment Result Summary: 100% of students meet the expectations of this PLO.</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 40</p> <p>Number of Students Achieving the PLO: 40</p> <p>Optional Rich Text Field: 100% of students meet the expectations of this PLO.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298B, DATA 240</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: This PLO is assessed using the final project report</p> <p>Closing the Loop and Continuous Improvement Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: No action is recommended.</p>
	<p>Submission Date: 05/01/2023</p> <p>Assessment Result Summary: 94.4% of students achieved the PLO. Benchmark is 80%. Thus, this PLO is achieved.</p> <p>Reporting Period: 2022 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 124</p> <p>Number of Students Achieving the PLO: 117</p> <p>Optional Rich Text Field: Four DATA 240 students didn't demonstrate the capability to solve data mining problems. Three DATA 298B students didn't complete the master project in time.</p>

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Assessment Method	Assessment Result Summary
	<p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 240 and DATA 298B</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria: DATA 240 applied the assessment methods of assignments, exams and projects to evaluate the capability of mathematical concepts, Python, classification, models, methods, big data, optimal decision in data mining field.</p> <p>DATA 298B applied the assessment methods of assignments, reports and presentations to evaluate the ability to utilize quantitative skills and knowledge to solve the project problems, review the contents and organization of reports, and evaluate the effectiveness of presentations.</p> <p><u>Closing the Loop and Continuous Improvement</u></p> <p>Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly: Adding coding component has increased the students' learning capability and hence increase the percentage of students achieved the PLO.</p> <p>Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: Submission Date: 06/15/2021</p> <p>Action Item: Include questions related to coding in the Midterm or Final Exam of DATA 240 for improving the capability of solving data mining problems.</p> <ul style="list-style-type: none"> - Submission Date: 05/01/2023 - Status Update: DATA 240 has included questions related to coding in assignments and projects since Fall 2021. <p>Submission Date: 05/01/2023</p> <p>Action Item: Strengthen students' mathematical backgrounds by enhancing the prerequisite courses in Fall 2024.</p>

PLO 6

Program Learning Outcome: Work productively as individuals and in teamwork to perform data analytics tasks as part of a team.

PLO Status: Active

Assessment Schedule: 2023 - 2024

If your assessment calendar is based on a semester system, indicate year and semester in this field (optional):

Mapping

University Learning Goals: (X - Highlight to Align)

- **Goal 2:** 2 - Specialized Knowledge (X)
- **Goal 5:** 5 - Applied Knowledge and Skills (X)

Curriculum Mapping

DATA 298A (3)

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Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Assessment Method: DATRA 298A - Assignments, reports and presentations</p> <p>Benchmark: 100% of students meet the expectations of this PLO.</p>	<p>Submission Date: 04/27/2024</p> <p>Assessment Result Summary: 100% of students meet the expectations of this PLO.</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 49</p> <p>Number of Students Achieving the PLO: 49</p> <p>Optional Rich Text Field: 100% of students meet the expectations of this PLO.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298A</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: This PLO is assessed using progress report 1 and 2 and the final project presentation</p> <p><u>Closing the Loop and Continuous Improvement</u> Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: No action is recommended.</p> <hr/> <p>Submission Date: 05/01/2023</p> <p>Assessment Result Summary: 100% of students achieved the PLO. Benchmark is 80%. Thus, this PLO is achieved.</p> <p>Reporting Period: 2022 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 71</p> <p>Number of Students Achieving the PLO: 71</p> <p>Optional Rich Text Field: All students achieved the PLO.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298A</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: DATA 298A applied the assessment methods of assignments, reports and presentations to evaluate the engagement and productivity of meetings, the plans of potential solutions, and the achievements including solutions to issues identified in previous meetings.</p> <p><u>Closing the Loop and Continuous Improvement</u> Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: No action items proposed in previous reports.</p> <p>Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: Submission Date: 06/15/2021 Action Item: None.</p>

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PLO 7

Program Learning Outcome: Identify ways in which data analytics professionals can contribute to the cultural, economic, educational and social well-being in diverse and multicultural local, national and global contexts.

PLO Status: Active

Assessment Schedule: 2023 - 2024

Mapping

University Learning Goals: (X - Highlight to Align)

- **Goal 1:** 1 - Social and Global Responsibilities (X)
- **Goal 2:** 2 - Specialized Knowledge (X)

Curriculum Mapping

DATA 298B (3)

Assessment Method	Assessment Result Summary
<p>Assessment Method Status: Active</p> <p>Assessment Method: DATA 298B - Assignments, reports and presentations</p> <p>Benchmark: 100% of students meet the expectations of this PLO.</p>	<p>Submission Date: 04/27/2024</p> <p>Assessment Result Summary: 100% of students meet the expectations of this PLO.</p> <p>Reporting Period: 2023 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 40</p> <p>Number of Students Achieving the PLO: 40</p> <p>Optional Rich Text Field: 100% of students meet the expectations of this PLO.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298B</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: No action is recommended.</p> <p>Closing the Loop and Continuous Improvement</p> <hr/> <p>Submission Date: 05/01/2023</p> <p>Assessment Result Summary: 94.8% of students achieved the PLO. Benchmark is 80%. Thus, this PLO is achieved.</p> <p>Reporting Period: 2022 (Jan - Dec)</p> <p>Conclusion: Benchmark Met</p> <p>Number of Students Assessed: 58</p> <p>Number of Students Achieving the PLO: 55</p> <p>Optional Rich Text Field: Three DATA 298B students didn't complete the master project in time.</p> <p>List all courses where data was collected (eg: BIOL 111, ENGL 1A): DATA 298B</p> <p>If multiple instructional methods are used to assess this outcome, describe the assessment methods used to assess this outcome, include assessment tools and criteria.: DATA 298B applied the assessment methods of reports and presentations on Section 7.6 of the project assignments to evaluate the</p>

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Assessment Method	Assessment Result Summary
	<p>ability of identifying the project contribution to the cultural, economic, educational and social well-being in diverse contexts.</p> <p><u>Closing the Loop and Continuous Improvement</u></p> <p>Please review the action items proposed in your previous report(s). Did the implementation of these action items affect or impact your data and report this year? Please explain briefly.: Providing a comprehensive report template and rubrics has enhanced students' capability in the development of their master projects.</p> <p>Please note any action items that emerged from your analysis of this data and report. What are your targeted timelines to complete these action items?: Submission Date: 06/15/2021</p> <p>Action Item: Review and enhance the contents and sequencing of program courses to ensure the students have sufficient background in completing DATA 298AB (MSDA Master Projects) in time.</p> <ul style="list-style-type: none"> - Submission Date: 04/20/2022 - Status Update: The department has conducted curriculum discussions since Fall 2021 and plan to submit several curriculum changes in Fall 2022 - Submission Date: 05/01/2023 - Status Update: Curriculum enhancements have been discussed in faculty meetings. Research on the technology trends and workforce demands has been conducted The department plans to submit proposals for new curriculum structure and course contents in Fall 2023. <p>Submission Date: 06/15/2021</p> <p>Action Item: Provide students a template for the master project.</p> <ul style="list-style-type: none"> - Submission Date: 04/20/2022 - Status Update: A comprehensive report template and rubrics for the master project have been designed and implemented since Fall 2021.