Teaching & Learning UNIVERSITY OF DENVER

PROGRAM ASSESSMENT REPORT

AY 2023-2024

A summary of academic assessment practices at DU

FOR MORE INFO

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FROM THE DIRECTOR

Dear Colleagues,

It is with a sense of pride that I present this year's annual assessment report, highlighting the University of Denver's commitment to excellence in teaching and learning. Over the past year, I have had the privilege of working with our dedicated faculty and staff across various disciplines and departments. Their commitment to meaningful work continues to drive DU's academic excellence.

In my role, I am continually reminded of the key purposes of assessment. Firstly, assessment is a tool to enhance student learning, ensuring our students achieve academic success. Secondly, it provides us with essential data to make informed decisions that benefit the entire university. Lastly, assessment allows us to transparently share our achievements and areas for growth with our internal and external constituents, reinforcing our accountability. While accreditation is part of the importance of assessment, our responsibility to our students, alumni, trustees, and educational partners truly motivates our efforts.

Looking ahead, I am excited to continue exploring innovative approaches to outcomes assessment. By clearly defining success in our programs, we can effectively measure our progress and refine our teaching practices. Using data-driven insights and narratives, we aim to create an environment where every student can thrive.

I am grateful for the dedication of DU's faculty and staff. Their commitment to meaningful assessment is the cornerstone of our collective success. I look forward to another year of collaboration, innovation, and transformative learning.

Sincerely,

Stephen P. Riley, Ph.D. Director of Academic Assessment





EXECUTIVE SUMMARY

ASSESSMENT REPORT SUBMISSIONS:

For the 2023-2024 academic year, assessment report submissions reached 78%, a slight decrease attributed to the transition to the DocuSign platform. Despite this, the rebound in submission rates over the past two years is a positive development as the assessment infrastructure is refined.

FEEDBACK RUBRIC DATA:

Submitted reports were evaluated using a feedback rubric, with the following levels of achievement:

- Entry-1: Data collection has started, and discussions on assessment results are taking place.
- Emerging-2: Data has been analyzed, and decisions have been made based on the results.
- Enhancing-3: Comprehensive evidence shows ongoing discussions and improvements based on assessments. Specific examples of implemented changes are provided

and scoring in four areas:

- **Data:** 66% of reports scored in the enhancing category.
- **Dialogue:** 44% scored in the enhancing category.
- **Discernment:** 66% scored in the enhancing category.
- **Diligence:** 44% scored in the enhancing category.
- The average scores for all programs were 2.6 for dialogue and 2.4 for other categories.

NEEDS ASSESSMENT DATA:

A survey revealed a need for more asynchronous resources and a desire for consultations on curriculum mapping. The Director of Academic Assessment is working on updating resources and offering consultations. Some of the newly available resources are:

- Training for using Canvas Outcomes Features to track student learning (Asynchronous)
- Training for curriculum mapping (Asynchronous)
- Training for assessment planning (Asynchronous)
- Training for building rubrics (Asynchronous)
- Training for using AI in assessment (Asynchronous)
- Plans for an assessment community of practice for the 2025-2026 academic year.



PROMISING ASSESSMENT STRATEGIES:

Various programs demonstrated effective assessment practices:

- **Data:** Programs like Mechanical Engineering and Counseling Psychology used mixed methods and comprehensive data to inform curricular decisions.
- **Dialogue:** Programs engaged external constituents and incorporated student voices to enhance curriculum relevance.
- **Discernment:** Programs like Sport Coaching and Political Science aligned curriculum with outcomes and redesigned capstone projects based on assessment data.
- **Diligence:** Programs implemented professional development workshops, continuous monitoring, and cross-departmental collaboration to support student success.

RECOMMENDATIONS:

- Implement regular **peer review** of assessment practices.
- Embrace technology for assessment.
- Participate in **professional development opportunities** related to assessment.
- Foster interdisciplinary collaboration.
- Ensure **inclusivity** in assessment.
- Use **multiple data** to inform curricular decisions and look at longitudinal date to ensure that there is **connection between one year's work to the next year**.



INTRODUCTION

The University of Denver (DU) empowers students from diverse backgrounds to contribute to a sustainable common good through its eleven colleges, schools, and divisions, offering a wide range of degree programs. Faculty, staff, and students collaborate throughout the year to fulfill the university's mission and achieve learning outcomes. Each degree program submits an annual report assessing student learning efforts, summarizing the work of assessment groups across campus. This report highlights key assessment statistics, showcases various practices, and concludes with recommendations and appendices on assessment at DU.

BY THE NUMBERS

The following section highlights some of the numbers related to the submitted reports. The highlighted numbers help show trends in submission rates, data engagement, and scoring from the feedback rubric, see Appendix C. These numbers help us see areas of strength as well as some areas for growth.

Assessment Report Submission Rates

This section highlights some of the numbers relating to the submission of assessment reports.

For the 2023-2024 academic year, the total percentage of submitted reports by all units was 78%. This 2% drop from last year may be explained, in part, by the switch to using the DocuSign platform for all reports. There were some issues with the process for some programs that led to a late or no



Percentage of Reports Submitted AY 23-24

The graph to the right highlights the

submission.

seven-year trend of submission percentages for all assessment reports within the university. The line clearly shows the high level of submission rates prior to the COVID-19 pandemic and the drop during the pandemic years. Alongside the pandemic, there was also a transition in assessment leadership at the university which also affected submission rates during this time. Thus, the rebound in submission rates for the past two years is a positive



ALL SUBMITTED REPORTS PERCENTAGE



development as assessment infrastructure is rebuilt.



Assessment Report Submissions-Feedback Rubric Data

Additionally, all submitted reports were given feedback based on the assessment rubric for faculty reflection, see Appendix C for the full rubric. Each report was given feedback by the Director of Academic Assessment based on the four categories. The Director also offered written feedback and a consultation to each program's assessment leader to aid the next steps in the assessment cycle. The graph to below visualizes the combined scoring percentages of all programs in each of the possible scoring categories of the rubric.

The levels of achievement and their score are as follows:

- Entry-1: Data collection has started, and discussions on assessment results are taking place. Plans for next steps are outlined but not detailed.
- **Emerging-2**: Data has been analyzed, and decisions have been made based on the results. There is a clear plan to implement changes informed by assessments.
- Enhancing-3: Comprehensive evidence shows ongoing discussions and improvements based on assessments. Specific examples of implemented changes are provided



In the area of data, which highlights the way data was described in the report as

contributing to the assessment work, 66% of reports scored in the enhancing category while 28 scored in the emerging and 6% in the entry categories.



In the dialogue area, which highlights the ways in which faculty members participated in the assessment work, 44%

percent scored in the enhancing category while 53% scored in the emerging and 3% scored in the entry categories. ALL SUBMITTED REPORTS RUBRIC SCORING The percentage annual assessment reports scored in each category on the rubric.

The percentage annual assessment reports scored in each category on the rubric. For example, 8% of the reports scored "entry" while 40% score "emerging and 52% score "enhancing in their use of data.





In discernment, which describes the process for making decisions for which assessment work is used 66% scored in the enhancing category while 13% scored in emerging and 22% scored in the entry categories.



Finally, in diligence, which shows the plans for carrying out decisions for the coming year because of assessment work, 44% scored in the enhancing category while 31% scored in emerging and 25% scored in the entry categories.



TOTAL SUBMITTED REPORTS RUBRIC SCORING

This graph shows the average scores for all submitted reports for the AY 22-23in each of the feedback categories for assessment reports. The scale used was 0-3.



The graph to the left shows the combined average score on a scale of 0-3 for all programs in each of the categories. For all programs, the engagement with dialogue, which is the number of times and ways departments discussed assessment throughout the year, scored the highest, with an average score of 2.6. All other categories averaged 2.4 for all programs.

NEEDS ASSESSMENT DATA

This past year, along with the assessment reports, the Director conducted an assessment needs survey. The survey asked respondents about how best they would engage topics related to program assessment tools. The options they were given were asynchronous means, such as website pages or handouts; synchronous means, such as workshops or webinars; and consultations, which would be either individual or departmental meetings with the Director of





Academic Assessment. There was a total of 39 respondents to the needs survey. Below is a graphic of the percentages of responses for each category for each topic.

The responses revealed a need for more asynchronous resources in multiple areas. The Director of Academic Assessment is working on updating and publishing those resources this coming year. Also, the responses revealed a desire among many to have a consultation about curriculum mapping. This process of aligning outcomes, courses and assessments is a great way to ensure that required curriculum helps students achieve the program's state learning outcome. The Director of Academic Assessment is available to assist any program with the process.

PROMISING COLLEGE, SCHOOL, AND DIVISION ASSESSMENT STRATEGIES

The following snapshots highlight some of promising assessment work happening across the university. These snapshots are organized according to the categories of the assessment report rubric: Data, Dialogue, Discernment, and Diligence. While there were many strategies to choose from, the snapshots below reveal ideas in the different areas that could be helpful for all units in their own assessment work.



DATA: ENGAGING STUDENT LEARNING DATA FOR CURRICULAR DECISIONS.

Collecting and analyzing data related to student learning is a crucial component of the assessment cycle. Data for assessment can originate from various sources, and there are two primary types of data that can aid programs in evaluating student learning. First, <u>direct measures</u> from student performance on assignments related to learning outcomes

provides the clearest indication of student learning. This can include student scores on exams or lab reports, rubric scores for papers or presentations, or evaluations of capstone projects. Analyzing student work aligned with learning outcomes offers a clear measure of student achievement. Second, <u>indirect measures</u> can be equally valuable in the assessment process. This includes data from student surveys, post-graduation placement records, and alumni feedback, which can provide insights into the curriculum and inform decision-making. Utilizing both types of data allows educators to make informed decisions, track student progress, and ultimately improve the quality of education provided. The following examples illustrate how different programs are leveraging data to inform their curricular decisions.

EXAMPLES OF DATA USE FOR CONTINUOUS IMPROVEMENT

Mixed Method Data Use for Curriculum Revision

Data-driven decision making is essential for ensuring that academic programs are continuously improved based on concrete evidence. The Bachelor of Science in Mechanical Engineering (BSME) program employed a detailed assessment process using direct data from multiple courses and indirect data from surveys and peer evaluations. This comprehensive approach allowed for a nuanced understanding of student performance and informed targeted improvements in the curriculum. For example, the program used data from senior design



projects, integration courses, and capstone labs to assess technical skills and communication abilities, leading to measurable improvements in student outcomes.

Qualitative Data Collection

Incorporating qualitative data collection methods, such as surveys and focus groups, provides rich, detailed insights into students' experiences and perceptions. The Master of Arts in Higher Education (MA) program utilized student surveys and focus groups to gather qualitative data on program effectiveness. This approach allowed the program to capture nuanced feedback from students, leading to targeted improvements in course content and delivery. The qualitative data collected provided a deeper understanding of student needs and program strengths, ultimately enhancing the overall educational experience.

Comprehensive Data Utilization

Utilizing a combination of direct and indirect data sources can provide a holistic view of program effectiveness and student learning outcomes. The Master of Arts in Counseling Psychology (MA CP) program used a variety of data sources to assess program learning outcomes. Direct data included course grades, comprehensive exam results, and practicum supervisor evaluations, while indirect data came from student satisfaction surveys and monthly meetings with student representatives. This comprehensive approach allowed the program to identify areas of strength and opportunities for improvement, leading to targeted changes in course sequencing and curriculum content.



SPECIAL PROJECTS: USING DATA AND TECHNOLOGY FOR IMPROVEMENT

Chemistry and Biochemistry

The Chemistry and Biochemistry program, led by Scott Horowitz, undertook a comprehensive project to enhance their assessment practices by setting up a assessment dashboard. This initiative involved using faculty, student, and alumni surveys to collect data about courses, learning experiences, and services. A sample question from the survey is shown below.



Listed below are the current classes. Which course content, skills or objectives do you think are important for all of our students to take, or are important for people in your lab to take?

	Important	Medium Important	Not Important	Unsure
CHEM 3110: Chemical Systems I (Advanced Organic Chemistry)	0	0	0	0
CHEM 3120: Chemical Systems II (Inorganic Chemistry)	0	0	0	0
CHEM 3130: Chemical Systems III (Biophysical methods)	0	0	0	0
CHEM 3310: Structure and Energetics I (Symmetry and molecular orbitals)	0	0	0	0
CHEM 3320: Structure and Energertics II (Computational Chemistry)	0	0	0	0
CHEM 3831: Advanced Protein Biochemistry	0	0	0	0
CHEM 3705: Topics in Biochemistry (Debates in biochemistry)	0	0	0	0
CHEM 3220: Advanced Analytical Chemistry	0	0	0	0

Additionally, the data highlighted which services best helped students prepare for their futures The survey data was collected and cleaned then turned into an interactive Tableau dashboard the faculty could analyze. The picture below is of the interactive dashboard created by the Director of Academic Assessment.





The surveys revealed that certain courses were functioning well while others needed adjustments and which ones were not meeting their needs. This valuable information led a committee of faculty to make informed recommendations for the program's future, fostering a culture of continuous improvement and accountability.



Kinesiology

Similarly, the Kinesiology program, led by Clayton Kuklick, implemented a Canvas Outcomes Project to evaluate and visualize student learning outcomes. Working with the Director of Academic Assessment, they imported all course and program-level outcomes into Canvas and aligned assignments with rubrics made from these outcomes to score student work.



\sim	4.1.	2.2 Sport Coaching MA Courses	-			
	>	CPSY4710 Motor Learning an		>	CPSY4710.1	:
	>	CPSY4610 Exercise Physiology	_		Students will demonstrate a sound foundational knowledge and understanding of motor learning princip	les
	>	CPSY4620 Kinesiology		>	CPSY4710.2	:
	>	CPSY4635 Athletic & Perform			Students will develop coaching strategies and pedagogies that facilitate learning and performance development	op
	>	CPSY4700 Organization and		>	CPSY4710.3	:
	>	CPSY4705 Sociocultural Aspe	0,		Students will evaluate the different types and functions of practice repetition, feedback, and training aid	es
	>	CPSY4712 Tactical Periodizati	_	<u>`</u>	CDEV/740 /	:
	>	CPSY4715 Strength and Cond			Students will describe how information is processed and the factors that influence decision making with	in
	>	CPSY4720 Psychology of Athl	-			
	>	CPSY4722 Social-Psychology		>	CPSY4710.5	:
	>	CPSY4723 Sport Technology	-		Students will critique how to structure the learning experience to enhance skill performance and learnin	g.
	>	CPSY4725 Philosophy, Leader		>	CPSY4710.6	÷
	>	CPSY4730 Biomechanics of A			Students will synthesize motor learning concepts to create a long term plan of coaching strategies.	
	>	CPSY4735 Understanding Sp		>	CPSY4610.1	:
	>	CPSY4751 Applied Sport Coa			Students will demonstrate a sound foundational knowledge and understanding of the principles of huma	in a

Each quarter, a report is pulled from Canvas on the outcomes and turned into a dashboard that the faculty can analyze to make important decisions about student learning. This approach allowed for timely interventions and informed curricular adjustments, ultimately improving student learning outcomes. These projects demonstrate the benefits of using technology and datadriven approaches in assessment, and other programs are encouraged to adopt similar strategies to enhance their assessment practices and support student success.



These projects highlight the positive impact of thorough assessment practices and the use of technology in improving educational outcomes. Other programs can look to these examples as models for how to effectively gather and utilize data to drive meaningful changes and support student success.





DIALOGUE: DISCUSSING THE ASSESSMENT DATA

Engaged dialogue is a vital component of the assessment process, fostering collaboration, transparency, and continuous improvement. Effective dialogue among faculty, between faculty and students, and with external constituents ensures that diverse perspectives are considered, leading to more informed and holistic decision-making. Faculty-to-faculty dialogue promotes the sharing of best practices, alignment of learning outcomes, and

collective problem-solving. Engaging students in the assessment process through surveys and interviews provides valuable insights into their experiences and needs, enhancing the relevance and effectiveness of the curriculum. Additionally, involving external constituents, such as advisory boards and employers, ensures that academic programs remain aligned with industry standards and community expectations. The following examples illustrate the importance of engaged dialogue in the assessment process.

Engaging External Constituents

Engaging external constituents, such as advisory boards and employers, in the assessment process ensures that academic programs remain aligned with industry standards and community needs. The Bachelor of Science in Real Estate and the Built Environment (REBE) program, led by Daniel Trujillo, engaged an advisory board composed of industry leaders to provide curriculum input, mentor students, and facilitate industry connections. This collaboration ensured alignment with industry standards and enhanced students' technical skills and job readiness. The advisory board's feedback led to curriculum adjustments that better prepared students for the job market.

Student Voice in Assessment

Incorporating student voices in the assessment process through surveys and interviews provides valuable insights into their experiences and needs. The Master of Arts in Counseling Psychology (MA CP) program, directed by Pat Garriott, utilized feedback from student satisfaction surveys and monthly meetings with student representatives to make informed changes to course sequencing and curriculum content. This practice of actively seeking and incorporating student input led to positive changes in course scheduling and curriculum content, enhancing the overall student experience and program effectiveness.

Faculty Retreats for Program Review

Holding faculty retreats to review assessment data and revise learning outcomes fosters a sense of community and shared responsibility for program improvement. The Bachelor of Arts in Anthropology program, under the guidance of Alejandro Cerón, held a faculty retreat to review previous assessment data and revise their learning outcomes, requirements, and assessment plan. This collaborative approach ensured that all faculty members were involved in the assessment process and contributed to the development of new learning goals and an assessment map. The retreat fostered a sense of community and shared responsibility for program improvement.





DISCERNMENT: MAKING DECISIONS BASED ON ASSESSMENT DATA

Effective decision-making based on assessment data is crucial for enhancing educational practices and student outcomes. Assessment data provides educators with valuable insights into student performance, helping them identify areas of strength and areas needing improvement. By analyzing this data, educators can make informed decisions that lead

to better instructional strategies, resource allocation, and overall program effectiveness. Decisions should be evidence-based, ensuring that changes are driven by concrete data rather than assumptions. This approach not only improves the quality of education but also fosters accountability and transparency in the decision-making process. The following examples illustrate how different programs have utilized assessment data to inform their decisions and enhance their curricula.

Curriculum Alignment

Aligning curriculum with program-level outcomes ensures that courses and learning experiences remain relevant and effective. The Master of Arts in Sport Coaching (MASC) program implemented a comprehensive curriculum map to align course deliverables with program-level outcomes. This initiative involved faculty identifying specific assignments that assess each learning outcome, resulting in a more structured and transparent curriculum that better supports student learning and achievement. The curriculum alignment led to improved student performance and a clearer demonstration of program learning outcomes.

Capstone Project Redesign

Redesigning capstone projects to better assess student skills and learning outcomes can lead to significant improvements in academic programs. The Bachelor of Arts in Political Science program, under the guidance of Jing Sun, focused on enhancing students' analytical argumentation, evidence incorporation, and writing clarity through a redesigned capstone project. This comprehensive assessment of students' skills provided a clearer demonstration of program learning outcomes and improved student performance. The redesigned capstone project allowed for a more accurate evaluation of students' readiness for post-graduate opportunities.

Program Review and Revision

Regular program review and revision based on assessment data can lead to meaningful improvements in curriculum and student outcomes. The Master of Arts in Counseling Psychology (MACP) program conducted a comprehensive review of their curriculum and assessment practices. This review led to the addition of a new course, CNP 5771, to strengthen students' scientific writing skills and facilitate progress on their dissertations. The course was first taught in Winter 2023 and has since been integrated into the program requirements. Student evaluation feedback and faculty consultations indicated that the course significantly improved students' scientific writing abilities and dissertation progress. This example highlights the importance of regular program review and the willingness to make data-informed changes to enhance student learning and success.





DILIGENCE IN IMPLEMENTATION

Implementing the decisions that are made from dialogue and data analysis is the last step in meaningful assessment. Diligence is the implementation of changes and telling our stories of success is a critical part of the assessment process. Without this step, assessment can become a thought experiment or a conversation without action. Meaningful assessment leads to change, whether that be changes in

curriculum, pedagogy, or services to students, or an improved way of telling one's story to your constituents. The following examples provide illustrations of ways departments can be diligent in implementing the decisions they have made.

Professional Development Workshops

Implementing professional development workshops to support students' academic and career development can lead to improved student performance and preparedness for post-graduate opportunities. The Master of Arts in Anthropology (MA) program introduced professionalization and thesis workshops to support students' academic and career development. These workshops provided targeted guidance on thesis writing and professional skills, contributing to improved student performance and preparedness for post-graduate opportunities. The initiative reflects a proactive approach to student support and professional development.

Continuous Monitoring and Feedback

Continuous monitoring and feedback are essential for ensuring that assessment-driven changes are effectively implemented and sustained. The Bachelor of Arts in Psychology (BA) program used student feedback from course evaluations and senior surveys to make informed changes to their curriculum. This included adding lab sections to the Foundations of Psychological Science course and hiring additional faculty to support high-quality academic advising. The program's responsiveness to student feedback led to improved course offerings and a better overall student experience.

Cross-Departmental Collaboration

Collaborating across departments to address curriculum gaps and enhance student learning can lead to a more comprehensive education. The Master of Arts in Counseling Psychology (PhD CP) program collaborated with the Research Methods and Statistics program to explore additional coursework that could enhance students' research skills. This cross-departmental collaboration aimed to address curriculum gaps and provide students with a more comprehensive education. The initiative reflects a commitment to leveraging internal resources and expertise to support student success and program improvement.



Engaging Alumni in Assessment

Engaging alumni in the assessment process can provide valuable insights into the long-term impact of academic programs and inform future improvements. The Master of Arts in Library and Information Science (LIS) program engaged alumni in the process of revising the program's mission, goals, and learning outcomes. This collaborative approach ensured that the program's objectives were aligned with current trends in the field and addressed the needs of various stakeholders. The program's commitment to continuous improvement and stakeholder engagement has strengthened its curriculum and student support services.

ASSESSMENT RECOMMENDATIONS

There are many positives to highlight about assessment work at the University of Denver. Likewise, there are several ways assessment could be improved to create more robust findings and solidify datainformed decisions. Here are five recommendations for improved assessment work across the campus:



Implement Regular Peer Review of Assessment Practices

Peer review can involve colleagues from different disciplines or even from peer institutions, providing fresh perspectives and helping to discover insights about your program's strengths and potential areas for growth Think of peer review as a friendly check-in with colleagues. By establishing a peer review system where faculty members review each other's assessment practices and reports, you can gain valuable feedback and share best practices. This collaborative approach fosters a culture of continuous improvement and ensures that assessment methods are aligned with program goals and learning outcomes.

Embrace Technology as Your Assessment Ally

Utilizing advanced tools and platforms, such as Canvas, can streamline the assessment process. In Canvas, programs can work with the Director of Academic Assessment to import learning outcomes for reporting. This process is easy and beneficial for collecting data on student learning in your program. Additionally, generative AI can be helpful in analyzing data and preparing assessment reports, providing immediate insights into student performance and allowing for timely interventions and data-driven decision-making. By leveraging technology, you can make the assessment process more efficient and responsive to student needs.

Participate in Professional Development Opportunities Focused on Assessment

Think of professional development as a way to keep your assessment skills sharp and up to date. The Director of Academic Assessment offers a wide variety of resources to grow one's assessment practice, which can be found at the Assessment@DU website. Offering regular workshops and training sessions focused on assessment strategies, data analysis, and the use of assessment tools can empower faculty with the latest methodologies and best practices. Continuous learning opportunities ensure that faculty are well-equipped to conduct meaningful assessments, ultimately leading to more effective and impactful assessment practices across programs.



Foster Interdisciplinary Collaboration in Assessment

Collaboration across disciplines can bring fresh perspectives and innovative ideas to the assessment process. Encourage interdisciplinary collaboration by creating opportunities for faculty from different departments to work together on assessment projects. This can include joint assessment initiatives, interdisciplinary capstone projects, and cross-departmental assessment committees. Interdisciplinary collaboration enhances the assessment process by incorporating diverse viewpoints and expertise, leading to more comprehensive and effective evaluations of student learning.

Find Ways to Be More Inclusive in Assessment

Inclusivity in assessment ensures that all students, regardless of their backgrounds, have equitable opportunities to demonstrate their learning. Consider offering various methods and modalities of assessment to accommodate diverse learning needs. For example, providing multiple authentic assessment formats, such as projects, presentations, and written assignments, allows students to showcase their strengths in different ways. Additionally, involving students in the assessment process by seeking their feedback and providing clear, flexible guidelines can help create a more inclusive learning environment. By extending flexibility and grace, such as allowing a set number of late submissions without penalty, you can support students in balancing their academic and personal responsibilities. These practices help create a more inclusive and supportive assessment framework that meets the needs of all students.

CONCLUSION

Faculty assessment work is a vital way to critically reflect on the practices that help us fulfill the University of Denver's mission of contributing to the common good. This year's assessment report highlights the significant progress made in various areas, including the increased submission rates, the effective use of data, engaged dialogue, informed decision-making, and diligent implementation of assessment-driven changes.

The report showcases numerous examples of how different programs are leveraging data to inform their curricular decisions, fostering collaboration through engaged dialogue, making evidence-based decisions to enhance educational practices, and diligently implementing changes to improve student learning outcomes. These efforts demonstrate the university's commitment to continuous improvement and academic excellence.

As we move forward, it is essential to build on these successes and continue to refine our assessment practices. The recommendations provided in this report offer actionable steps for further enhancement, including implementing regular peer reviews, leveraging technology for real-time data collection and analysis, participating in professional development opportunities, fostering interdisciplinary collaboration, and finding ways to be more inclusive in assessment.

By embracing these best practices and maintaining a focus on meaningful assessment, we can create an environment where every student can thrive. The dedication of DU's faculty and staff to meaningful assessment is the cornerstone of our collective success. Together, we can ensure that our assessment work not only supports student learning but also contributes to the overall mission of the university.



APPENDIX A: GLOSSARY OF KEY ASSESSMENT TERMS

This glossary was developed using the Carleton College Short Glossary of Assessment Terms, NILOA Glossary, and the National Art Standards Assessment Glossary.

Accreditation

Accreditation is the establishment of the status, legitimacy, or appropriateness of an institution or program of study by an organization delegated to make decisions, on behalf of the higher education sector, about the status, legitimacy or appropriateness of an institution or program of study. The primary accrediting body for the University of Denver is the Higher Learning Commission. However, certain programs within the university also have outside accrediting bodies.

Artifact

An object produced to indicate mastery of a skill or component of knowledge. It is often stored for future use.

Assessment

A systematic process for understanding and improving student learning. The ongoing process engages faculty, staff, and students at multiple points to ensure that evidence is analyzed in alignment with the institutional, program, and course level goals and outcomes in order to improve student learning and inform curricular and pedagogical decisions. ("NILOA Glossary")

The *process* of collecting and analyzing data for the purpose of evaluation. The assessment of student learning involves describing, collecting, recording, scoring, and interpreting information about performance. A complete assessment of student learning should include measures with a variety of formats as developmentally appropriate. Assessments and the tests they use are usually classified by how the data are used; either formative, benchmark or interim, and summative.

Authentic Assessment

Assessment strategies that require students to directly reveal their ability to think critically and apply and synthesize their knowledge.

Benchmarking

Benchmarking is a process that enables comparison of inputs, processes, or outputs between institutions (or parts of institutions) or within a single institution over time. A benchmark statement, in higher education, provides a reference point against which outcomes can be measured and refers to a particular specification of program characteristics and indicative standards.



Capstone

A culminating experience required of students nearing the end of a program. In the course, a student is required to create a project that integrates and applies what they've learned. The project might be a research paper, performance, portfolio, or artwork exhibition. Capstones can be offered in departmental programs and in general education as well.

Datum (Data)

Raw facts and figures submitted or by or for you for the purpose of analyzing by or for you into information. In common usage, however, the terms "data" and "information" are often used synonymously. Therefore, for assessment purposes, data will be the base facts and figures and information will be the analyzed data.

Direct Measures

Direct measures require students to demonstrate their knowledge and skills. They provide tangible, visible, and self-explanatory evidence of what students have and have not learned because of a course, program, or activity.

Evaluation

Evaluation includes both qualitative and quantitative descriptions of student behavior, plus value judgments concerning the desirability of that behavior. Using collected information (assessments) to make informed decisions about continued instruction, programs, and activities.

Formative Assessment

Formative assessments are measures which help shape students throughout a program. They are the types of measures faculty can use to give feedback and modify learning.

Formative assessment is often done at the beginning or during a program, thus providing the opportunity for immediate evidence for student learning in a particular course or at a particular point in a program. Classroom assessment is one of the most common formative assessment techniques. The purpose of this technique is to improve quality of student learning, leading to feedback in the developmental progression of learning. This can also lead to curricular modifications when specific courses have not met the student learning outcomes. Classroom assessment can also provide important program information when multiple sections of a course are taught because it enables programs to examine if the learning goals and objectives are met in all sections of the course. It also can improve instructional quality by engaging the faculty in the design and practice of the course goals and objectives and the course impact on the program.



High-Impact Practices (HIPs)

High-impact practices are educational opportunities that have been widely tested and shown to improve student success, especially among historically underserved students. Founding director of the National Survey of Student Engagement (NSSE), George Kuh found that these practices benefit students by connecting learning to life, fostering quality interaction between faculty and students, increasing the likelihood that students will experience diversity through contact with people different from themselves, and helping students understand themselves in relation to others in light of the larger world.

Kuh initially identified ten high-impact practices and later added e-portfolios. The list includes, first-year seminars, learning communities, common intellectual experiences, undergraduate research, capstone courses, diversity/global learning, collaboration, e-portfolios, writing intensive courses, service-learning, and internships. (Kuh)

Higher Learning Commission (HLC)

An institutional accreditor recognized by the U.S. Department of Education. HLC accredits degree-granting institutions of higher education in the United States. The University of Denver is currently accredited by HLC.

Indirect Measures

Assessments that measure opinions or thoughts about student or alumni knowledge, skills, attitudes, learning experiences, perception of services received, or employers' opinions. While these types of measures are important and necessary, they do not measure student performance directly. They supplement direct measures of learning by providing information about how and why learning is occurring.

Information

Content conveyed or represented by a particular arrangement or sequence of facts and figures.

Institution

Institution is shorthand for institution of higher education, which is an educational institution that has students graduating at bachelor-degree level or above.

Interdisciplinary

Interdisciplinary refers to research or study that integrates concepts from different disciplines, resulting in a synthesized or coordinated coherent whole.

Joint Degree

A joint degree is a single degree awarded by more than one higher education institution.



Outcome (also known as Learning Outcomes or Learning Objectives)

What you want students to know and understand after they complete a learning experience, usually a culminating activity, product, or performance that can be measured. There are different levels of outcomes:

Course Learning Outcomes (CLOs)

These outcomes are connected to student learning at the course level. These are measured throughout a particular course offering.

Program Learning Outcomes (PLOs)

These outcomes are connected to student performance during a major or general education program. These are usually measured through course and co-curricular experiences throughout a program.

Institutional Learning Outcomes (ILOs)

These outcomes are connected to student performance during their entire time at the institution. At the University of Denver, these outcomes are found in the 4D experience. These outcomes are usually measured through larger initiatives in various programs.

Portfolio

A systematic and organized collection of student work that exhibits the direct evidence of a student's efforts, achievements, and progress over a period of time. The collection may involve the student in the selection of its contents, and should include information about the performance criteria, the rubric or criteria for judging merit, and evidence of student self-reflection or evaluation. It should include representative work, providing a documentation of the students' performance and a basis for evaluation of the student's progress. Portfolios may include a variety of demonstrations of learning and have been gathered in the form of a physical collection of materials, videos, CD-ROMs, reflective journals, etc.

Program (Educational, Academic)

A legally authorized postsecondary program of organized instruction or study that:

Leads to an academic, professional, or vocational degree, or certificate, or other recognized educational credential, or is a comprehensive transition and postsecondary program, as described in 34 CFR part 668, subpart O; and

May, in lieu of credit hours or clock hours as a measure of student learning, utilize direct assessment of student learning, or recognize the direct assessment of student learning by others, if such assessment is consistent with the accreditation of the institution or program utilizing the results of the assessment and with the provisions of 34 CFR § 668.10.



Rubric

In general, a rubric is a scoring guide used in subjective assessments. A rubric implies that a rule defining the criteria of an assessment system is followed in evaluation. A rubric can be an explicit description of performance characteristics corresponding to a point on a rating scale. A scoring rubric makes explicit expected qualities of performance on a rating scale or the definition of a single scoring point on a scale.

Self-Assessment

A process in which a student engages in a systematic review of a performance, usually for the purpose of improving future performance. May involve comparison with a standard, established criteria. May involve critiquing one's own work or may be a simple description of the performance. Reflection, self-evaluation, metacognition, are related terms.

Summative Assessments

Summative assessments are measures that occur near the end of a unit, course, or program and seek to assess student mastery of an outcome.

Summative assessment is comprehensive in nature, provides accountability and is used to check the level of learning at the end of the program. For example, if upon completion of a program students will have the knowledge to pass an accreditation test, taking the test would be summative in nature since it is based on the cumulative learning experience. Program goals and objectives often reflect the cumulative nature of the learning that takes place in a program. Thus, the program would conduct summative assessment at the end of the program to ensure students have met the program goals and objectives. Attention should be given to using various methods and measures in order to have a comprehensive plan.

VALUE Rubrics

VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success. ("VALUE Rubrics")



APPENDIX B: THE ASSESSMENT CYCLE

The program assessment cycle at the University of Denver is aligned with the academic calendar, involving a significant number of faculty and staff who work to ensure the process focuses on improving student learning. The process is outlined as a six-step cycle below. At each step, faculty lead assessment work for reflecting on teaching and learning at the course and program level.



The six steps of the cycle begin with submission of the assessment report by program assessment coordinators.

- 1. Submit. During the past two years, the Office of Teaching and Learning has requested that reports be submitted through the Qualtrics survey platform. In their reports, assessment leaders share evidence and narratives regarding program work for the previous year. Reports are submitted with a cover letter from an academic supervisor, usually a department chair or associate dean.
- 2. Comment. Following submission, the Director of Academic Assessment and appropriate academic leaders offer constructive feedback for directions program leaders may take going forward. One way the Director of Academic Assessment offers feedback is by using a rubric to score each report on assessment qualities. The graphic below is the rubric designed to offer feedback. The rubric was created to align with criteria of the Higher Learning Commission (HLC) accreditation guidelines, the rubric offers feedback to guide program assessment coordinators.



- **3.** Collaborate. Through various formalized meetings and consultations, faculty work with academic leaders, including the Director of Academic Assessment, to interpret the feedback and data from the assessment report to discern the future of the program. This phase helps participants interpret and consider the various data points helpful to improving the program.
- 4. Discern. The discernment phase invites faculty and staff to devote time and effort to deciding how to proceed with findings from the collaboration stage. In this phase, participants make data-informed decisions about next steps for the program. For example, one program may decide to share narratives of student success in promotional materials. Another program may make curricular changes based on their findings. Curricular changes range from updating an assignment, changing a learning outcome, or rearranging course offerings. Each of these might require new processes or resources. In all cases, the significant work of assessment must take place for programs to decide how best to proceed.
- 5. Implement. After discerning the best next steps, each program should develop an implementation plan. For some, this will require working through university-related committees and councils. Others will need financial resources or assistance from departments to enact their goals. Whatever decisions are made, implementation is critical to track. "Closing the loop" is the process of tracking how assessment results are employed to improve student learning. Even as plans change, having an initial vision of how the discernment will be put into action is important for meaningful assessment growth.
- 6. **Review**. Finally, as the next assessment report comes due, each program should review the previous report to check how their implementation has occurred. The review phase allows participants the opportunity to reflect on how decisions have affected student learning and the program's future.



APPENDIX C: A GUIDE FOR WRITING AND ASSESSING LEARNING OUTCOMES

Academic assessment is done in a variety of ways. However, for it to truly be effective and meet its three main purposes, assessment should encompass these three key components: articulating learning outcomes, gathering evidence of student learning, and engaging in analysis, reflection, and reporting.

ARTICULATING LEARNING OUTCOMES:

Articulating learning outcomes is the foundation of effective assessment. It involves clearly defining what students should know,



understand, and be able to do upon completion of a course or program.

Outcomes serve as benchmarks for measuring student progress and ensuring alignment with the overall learning goals of the program. Faculty members clearly define and articulate their expectations for student success within their respective courses and programs. These outcomes are specific, measurable, and attainable, ensuring a clear alignment with student learning objectives and quality pedagogical practices.

Program outcomes should have four components:

- 1. Audience-who will be expected to do the learning.
- 2. Behavior-what will the students be expected to do or know.
- 3. Condition-under what condition will the student have to demonstrate their learning.
- 4. Degree-to what extent will the student have to demonstrate their learning.

Outcomes should have rubrics to help both faculty and students know what meeting the outcome looks like. Generally, these rubrics include actionable language related to the outcome

For example, for a writing course, faculty members might define learning outcomes such as the ability to construct well-organized arguments, effectively support claims with evidence, and use proper grammar and style. For a biology course, faculty members might define learning outcomes such as the ability to identify and classify organisms, explain the processes of photosynthesis and cellular respiration, and apply biological concepts to real-world scenarios.



GATHERING EVIDENCE OF STUDENT LEARNING:

Gathering evidence of student learning is the process of collecting data that demonstrates whether students have achieved the defined learning outcomes. This evidence can take various forms, such as essays, lab reports, presentations, portfolios, and performance assessments. Faculty members collect high-quality artifacts and data from the curriculum that demonstrate student progress towards achieving the established learning outcomes. These artifacts are sourced directly from student engagement activities, providing tangible evidence of their mastery of the learning material. For example, in a writing course, faculty members might collect artifacts such as essays, research papers, and peer reviews to assess student writing skills and argumentation abilities. In a biology course, faculty members might collect artifacts such as lab reports, concept maps, and presentations to assess student understanding of biological concepts and their ability to apply them.

ANALYSIS, REFLECTION, AND REPORTING:

Analysis, reflection, and reporting are integral to the assessment process. Faculty members carefully examine the collected evidence, drawing meaningful conclusions about student learning patterns, strengths, and areas for improvement. They then share these insights through reports and discussions, informing their own teaching practices, program curriculum development, and institutional decision-making. Faculty members meticulously analyze and reflect upon the gathered evidence, drawing meaningful conclusions about student learning. This reflective process informs their reporting on assessment findings, which in turn guides assessment officers and administrators in providing constructive feedback and identifying potential areas for improvement. Additionally, assessment findings inform accreditation processes, budget allocation strategies, marketing initiatives, and recruitment efforts. For example, after analyzing student essays, faculty members might identify areas where students struggle with argumentation or evidence usage. This information can inform future teaching strategies and provide targeted support for students. In Biology, by analyzing student performance on lab reports, faculty members might recognize a need for additional hands-on learning experiences or clearer explanations of complex concepts. This feedback can inform curriculum revisions and improve student engagement.

While program-level assessment is the primary focus of this report, course-level assessment plays an integral role in shaping program goals. The insights gained from course-level assessment inform and refine the broader program-level learning outcomes, ensuring a cohesive and effective assessment framework across all levels.



APPENDIX D: TYPES OF ASSESSMENT EVIDENCE

Direct Measures

Direct measures require students to demonstrate their knowledge and skills. They provide tangible, visible, and self-explanatory evidence of what students have and have not learned because of a course, program, or activity.

<u>Authentic:</u> Based on examining genuine or real examples of students' work. Work that closely reflects goals and objectives for learning. Authentic assessment reveals something about the standards that are at the heart of a subject; asking students to use judgment and innovation as they "do" and explore the subject.

<u>Embedded:</u> Program, general education, or institutional assessments that are embedded into course work. In other words, they are course assessments that do double duty, providing information not only on what students have learned in the course but also on their progress in achieving program or organizational goals. Because embedded assessment instruments are typically designed by faculty and staff, they match up well with local learning goals. They therefore yield information that faculty and staff value and are likely used to improve teaching and learning.

<u>Portfolios Assessment:</u> Performance assessments in which student work is systematically collected and reviewed for evidence of student learning. In addition to examples of their work, most portfolios include reflective statements prepared by students. Portfolios are assessed for evidence of student achievement with respect to established student learning outcomes and standards.

Indirect Measures

Indirect measures encompass assessments that measure opinions or thoughts about student or alumni knowledge, skills, attitudes, learning experiences, perception of services received, or employers' opinions. While these types of measures are important and necessary, they do not measure student performance directly. They supplement direct measures of learning by providing information about how and why learning is occurring.

<u>Focus Groups:</u> A group selected for its relevance to an evaluation that is engaged by a trained facilitator in a series of discussions designed for sharing insights, ideas, and observations on a topic of concern to the evaluation.

<u>Interviews:</u> Researchers ask one or more participants general, open-ended questions and record their answers.

<u>Questionnaires</u>: Forms used in a survey design that study participants complete and return to the researcher. Participants mark answers to questions and may supply basic, personal, or demographic information about themselves.

<u>Surveys</u>: A method of collecting information from people about their characteristics, behaviors, attitudes, or perceptions. Surveys most often take the form of questionnaires or structured interviews. General definition: an attempt to estimate the opinions, characteristics, or behaviors of a particular population by investigation of a representative sample.



APPENDIX E: RUBRIC FOR FACULTY REFLECTION ABOUT ASSESSMENT

The Director of Academic Assessment returns annual assessment reports with feedback based on the following rubric. This feedback is designed to foster a conversation about assessment work in the program and not as a "grade" for the report.

Criterion	Description	No Evidence	Entry	Emerging	Enhancing
Data	The faculty of the program collected meaningful data throughout the year that was clearly aligned with the specific outcomes being assessed	No evidence of data collected or presented for the purpose of analyzing student learning	Evidence that data related to student learning was collected	Evidence that data was collected and analyzed	A clear narrative of how multiple people engaged in collecting and analyzing more than one piece of data related to student learning
Dialogue	The faculty of the program engaged in meaningful dialogue about assessment	No evidence in the report the program engaged in meaningful dialogue during the year regarding any assessment measures	Evidence of one meaningful conversation related to assessment measures in the past year	More than one meaningful discussion about student learning as it relates to the program outcomes	A clear narrative of how multiple people engaged in multiple meaningful discussions about student learning
Discernment	The faculty of the program reported how their assessment work helped inform decisions about the future of the program	No indication the faculty made any decisions based on their assessment process	Evidence of the year's assessment work informing programmatic decisions	More than one piece of evidence of how the assessment work informed programmatic decisions	A clear narrative of how multiple people were involved in making informed programmatic decisions in alignment with their mission and values
Diligence	The faculty reported a plan for implementing changes that will be made regarding student learning	No evidence of a plan to implement decisions from the discernment step in the assessment work	A reported outline for implementing a programmatic decision in the next year	A clear plan for implementing programmatic decisions with an accountability structure to ensure implementation	A clear narrative for implementing programmatic decisions with clear accountability structure involving multiple people to ensure implementation

