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# A mid-Cycle 2020 Self-Evaluation Report MONTANA STATE UNIVERSITY

Mid-Cycle

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## 2020 Mid-Cycle Self-Evaluation Report

### MONTANA STATE UNIVERSITY



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#### PART 1: MISSION FULFILLMENT

The institution provides an executive summary of no more than three pages, which describes the institution's framework for its ongoing accreditation efforts. This might include evidence of institutional effectiveness, Core Themes, or other appropriate mechanisms for measuring fulfillment of its mission.

In March 2019, Montana State University's revised mission statement was approved by the Montana Board of Regents. The new mission statement and strategic plan were approved unanimously by University Council on November 7, 2018 and the new strategic plan, "Choosing Promise" was implemented in January 2019. "Choosing Promise" was developed in a consultative manner with a core Strategic Planning Committee who met regularly, engaged internal and external stakeholders consistently, and developed the plan iteratively during late 2017 and throughout 2018. Feedback was sought and received via an online portal that was available throughout the process, through meetings with internal and external stakeholders, and through charrettes that were advertised to gather information and feedback from those in the university community and the larger public. The university's new mission statement, values and strategic plan are featured prominently on the website and articulate the university's strategic direction. "Choosing Promise", MSU's strategic plan, will serve as its roadmap through 2024. All university employees and stakeholders were mailed paper copies of the new strategic plan in January 2019.

"Montana State University's strategic plan sets overarching goals for the university that are appropriate for its mission and relies on every member of the MSU community—students, faculty, staff alumni and our community partners—to contribute to its success. The plan is intended to guide and inform those making strategic decisions, without constraining the tactics that will help MSU achieve its goals. Each University unit is empowered to envision its future, develop its own paths to these goals and contribute to the University's success in diverse and creative ways" (Choosing Promise 2019).

#### Mission

"As the state's land-grant university, Montana State integrates education, creation of knowledge and art, and service to communities."

Vision

"Montana State University will transform lives and communities in the people's interest."

Intentional Focus 1: Transformational Learning Intentional Focus 2: Scholarship that Improves Lives Intentional Focus 3: Expanding Engagement

#### Definition and Interpretation of Mission Fulfillment

The institution defines mission fulfillment as accomplishment of the three Intentional Foci (IF) derived from its mission statement and included in its Strategic Plan. Accomplishment of the goals identified for each intentional focus (IF) is based on 1) direct assessment of whether MSU has met thresholds identified in the strategic plan and 2) by a more holistic assessment of the strategies MSU is implementing to meet specific objectives related to each of the three intentional foci.

The institution has identified measurable and assessable institutional performance indicators for each IF (see Tables A.1-A.3 in Appendix A). The Planning Council website tracks all the indicators identified for the strategic plan; a subset of these indicators, as outlined in the IF tables, define mission fulfillment for MSU. The performance indicators identified at the top of each IF table will be tracked annually and compared to institutional thresholds. These comparisons will provide a direct assessment of the accomplishment of each institutional focus area derived from the institutional mission.

In order to include a more holistic assessment of the strategies used by the institution to meet its core theme objectives, IF Strategy Effectiveness Teams (IFSETs)<sup>1</sup> will review progress on the IF performance indicators but will also assess accomplishment of each Intentional Focus through a quantitative and qualitative assessment of the strategies being used to achieve IF objectives. The IFSETs were designed (see Table A.5-A.8 in Appendix A) to assess effectiveness based on the assessment of the strategies we are using to meet IF objectives, to evaluate the accomplishment of IFs, and to better inform planning around the IFs (areas of intentional focus in our strategic plan) and IF objectives. Each IFSET will review assessment reports for each strategy and assign scores across four areas (performance, appropriateness, assessment and environmental responsiveness) using the Strategy Effectiveness Rubric (see Table 1.1).

| Performance   | Ineffective  | Effective   | Exceptionally<br>Effective   |
|---|--|---|--|
| Effectiveness Score – Su  | mmed score across perform                          | nance, assessment and envir   | onmental responsiveness  |
| Performance   | 0  | 1.5   | 3  |
| To what extent does the   | Not moving towards                                 | Moving towards some   | Moving towards all   |
| performance meet the  | strategy performance                               | strategy performance  | strategy performance   |
| standards set by the unit?  | thresholds   | thresholds  | thresholds   |
| Appropriateness   | 0  | 1.5   | 3  |
| To what extent is the strategy  | Not related to IF goals                            | Strategy is aligned with  | Strategy is aligned with   |
| related to the institutional<br>strategic goals and<br>performance indicators?<br>Assessment  | or does not represent<br>institutional values<br>0 | IF goals and represents<br>institutional values   | IF goals and represents<br>institutional values and<br>strategy performance<br>indicators are clearly<br>related to IF<br>performance indicators.<br>2 |
| Does the unit's report clearly<br>identify how assessment<br>results are being used to<br>improve the effectiveness of the<br>strategies? | Not using assessment to<br>improve performance     | Using assessment to<br>inform changes in<br>strategy  | Using assessment to<br>improve effectiveness of<br>strategy  |
| Environmental   | 0  | 1   | 2  |
| Responsiveness  |  |   |  |
| To what extent does the<br>unit's strategies demonstrate<br>responsiveness to the internal<br>and external environment?                   | Not responsive to<br>changes in the<br>environment | Understanding changes<br>in the environment that<br>impact the effectiveness<br>of the strategy | Responding as needed to<br>changes that impact the<br>effectiveness of the<br>strategy.  |

#### Table 1.1 Strategy Effectiveness Rubric

These effectiveness scores will be averaged for strategies within each IF to indicate a level of Institutional Effectiveness of each IF along a clearly defined scale described in Table 1.2 below. Each IFSET will produce and submit an annual report with a recommendation regarding the effectiveness of individual strategies, accomplishment of IF objectives and an average effectiveness score to the Institutional Effectiveness Council (IEC) who will make the final determination of accomplishment of IF objectives and mission fulfillment. The IEC includes the Chairs of MSU's Leadership Councils (see Appendix A, Table A.4 for a list of members).

1 The IFSETs include representatives with knowledge of the particular IFs and include representatives from Colleges, Academic Council, Planning Council, and Budget Council. The new strategic plan was implemented in January 2019 and the IFSETs reviewed strategy assessment reports for the first time in Fall 2020 in order to ensure an annual cycle of review and assessment of institutional effectiveness using data from the past academic year. This process provides clear documentation to support how MSU is informing IF planning using the consistent collection of appropriately defined data that are analyzed and used to evaluate the accomplishment of the IF objectives.

| Performance                     | Ineffective  | Effective   | Exceptionally<br>Effective  |
|---------------------------------|--|---|---|
| Average Effectiveness<br>Score* | 0-4  | 5-8   | 9-10  |
|                                 | On average strategies are<br>not effective and not<br>resulting in changes that<br>improve effectiveness | On average strategies are<br>meeting performance<br>thresholds, are helping<br>the institution improve<br>performance on IF<br>indicators, and are using<br>assessment to inform<br>changes to their<br>programs. | On average strategies are<br>exceeding performance<br>thresholds, using<br>assessment to improve<br>performance and<br>responding as needed to<br>the changes in the<br>environment |

#### Table 1.2: Institutional Effectiveness Scale

Articulation of an Acceptable Threshold, Extent, or Degree of Mission Fulfillment

Montana State University defines the acceptable threshold for mission fulfillment as either a demonstration that it meets or exceeds thresholds for a majority of the performance indicators for each IF area OR a demonstration that it is effectively performing in each IF area based on the average effectiveness score calculated across the IF strategies. The IEC reviews the IFSET reports and tracks progress towards mission fulfillment annually and will ultimately determine mission fulfillment for MSU's Year-Seven Evaluation.

#### PART 2: STUDENT ACHIEVEMENT

The institution provides a brief overview of the student achievement measures it uses as part of its ongoing self-reflection, along with comparative data and information from at least five institutions it uses in benchmarking its student achievement efforts. In providing the overview, the institution may consider including published indicators including (but not limited to) persistence, completion, retention, and postgraduation success student achievement measures. Additionally, the report must include the widely published indicators disaggregated by race, ethnicity, age, gender, socioeconomic status, first generation college student, Pell status, and any other institutionally meaningful categories that may help promote student achievement and close equity gaps, i.e., barriers to academic excellence and success amongst students from underserved communities.

As the state's land-grant university, Montana State has long demonstrated a commitment to the education of the sons and daughters of Montana, with deep insistence on wide access and successful outcomes. This commitment compels transparency and accountability regarding student success indicators, with a consistent focus on diversity, equity, and inclusion. Presentation of progress on strategic plan goals and metrics, which have included equity-minded measures for more than 10 years, occurs annually and publicly in University Council (UC) meetings. UC meetings are attended by all campus leaders as well as the local press, stakeholders and community members. Additionally, Planning Council reviews these reports and shares student success data on the university's website to allow students, faculty, staff, and members of the public to select subgroups and indicators to monitor equitable outcomes (Planning Council Goal 1.1 Updates).

Regular reporting on the strategic plan and other dashboards includes attention to underserved races/ethnicities, genders, age groups, Pell and first-generation statuses, and, more recently, pre-college preparation levels. The Office of Planning and Analysis has posted retention and graduation reports by race, ethnicity, financial aid status, gender, and residency for more than twenty years. MSU draws particular attention to indicators of American Indian/Alaska Native (AI/AN) student success, as we serve a state with a large AI/AN population. Moreover, we are compelled to support Tribal students because of our complicated physical and historical place in the state. Both internal university assessment and system-wide performance funding keep MSU focused on equity and inclusion.

The current strategic plan, "Choosing Promise," includes explicit enrollment and outcome goals that emphasize closing opportunity gaps for underserved student populations (Goal 1.1 of the Strategic Plan). The most recent annual report on these goals and metrics was presented to University Council on October 2, 2019 and posted to the Planning Council's website. The discussion of the report in University Council indicated:

- We need to do more to meet our stretch goals in diverse recruitment annual enrollment in the under-served groups is stable and in some cases increasing but not proportionally faster than the student body.
- Changes in our financial aid infrastructure and resources are not yet reflected in the lagging data, but we expect improvements in the percent of need met to begin showing in the next reported funding cycles.
- Access to new one- and two-year programs continues, and we will see additional completions follow.
- Dual Enrollment access continues to grow.
- Co-requisite courses addressing preparation gaps that students bring with them are new for MSU and showing good outcomes with room to improve.
- Retention and graduation rates for all students are increasing but many subgroups lag peers (see discussion below). Opportunity gaps persist, and because of our small under-served cohort counts, those rates and gaps bounce, but for most groups they are narrowing. Many programs have been developed and enhanced in response to known needs of under-served students, and we need to redouble our efforts to support students from diverse backgrounds.

With adoption and implementation of the current strategic plan, the Office of Academic Affairs and Office of Planning and Analysis developed department dashboards that reflect many of the plan metrics at the department level, to further encourage every unit to consider equity, access, and success for our students. These have been well used by many department heads, and exemplar usage has been held up for others to learn from.

#### Comparative Data

Montana State's typical focus is on improving relative to ourselves and our past, however, we do set targets in the strategic plan that are informed by peer data. Specifically, our retention and graduation targets are determined by multivariate analysis of universities with similar incoming cohorts. During strategic planning, we noted that, although we have made great progress in the last ten years, we underperform our peers with similar cohorts, and we set our targets to exceed those levels.

A review of relevant IPEDS data (Appendix B, Table 2) shows that MSU has a higher proportion of male students than average for our peer set (Appendix B, Table 1), and students are more likely to identify as American Indian/Alaska Native, White, or two or more races. We know that most of our two-or-more identifiers identify as AI/AN. Within the Montana University System and internal to MSU, we track all AI/AN identifiers regardless of Hispanic or other race identifications as an additional breakout.

Appendix B, Table 3 shows two years of retention data for the full cohort. Additional years are available. MSU's full-time cohort size is similar to the peer set but the retention rate trails. Retention has increased over time, with the most recent year nearing the peer average. Part-time retention is lower within MSU as elsewhere but well above the peer average as well as all but one school in the regional land-grant group, and with a significantly larger part-time cohort.

Lastly, Appendix B, Table 4 reports 6-year graduation rates (first-time, full-time cohort) for various populations compared to the overall rate and across institutions. Additional years are available. MSU's 6-year rate is even with regional land-grant peers on average, but with the student body we recruit and the support services we offer, we should be among the top schools in this region. In the most recent year our graduation rate for AI/AN and Asian-American students exceeds the peer averages, but our AI/AN student rate demonstrates an opportunity gap we must address. Other race and ethnicity groups have graduation rates below peer averages and with some internal gaps as well. International students graduate at a similar rate. Men have higher graduation rates than peers, but the women's graduation rate is slightly lower while exceeding the MSU overall rate. Finally, students with financial need demonstrated through Pell or Stafford loan status also face an opportunity gap that MSU must address.

#### PART 3: PROGRAMMATIC ASSESSMENT

The institution must provide programmatic assessment of at least two programs as evidence of a continuous process of improvement. The programs should be broadly representative of institutional efforts (and as a result programs that are approved by a CHEA-recognized programmatic accreditor are discouraged for this report).

In the fall of 2017 the Assessment and Outcomes Committee (AOC) was reestablished with a formal mission to lead and facilitate authentic assessment for all undergraduate and graduate degree programs, options, minors and certificates. The focus of this mission has been to develop an assessment process that provides a platform for meaningful assessment that will inform faculty and drive continued program improvements. Consequently, the AOC has established an assessment process that provides a strong foundation upon which MSU develops, identifies, and documents quality improvement planning and provides the institutional reporting associated with the assessment of program learning outcomes.

At the Year-Seven Evaluation, MSU programs had already defined program learning outcomes (PLOs) and most were submitting annual program assessment reports, but feedback on those reports was not uniform and varied from year to year. In its first year of work (2017-18) the AOC reviewed the annual assessment reports and provided written feedback for each program to help them improve assessment processes and to use assessment results to improve student learning. In response many departments requested individual meetings and received guidance from the Assistant Provost for Curriculum and Assessment, a new position created after our Year-Seven Evaluation to help develop consistent and meaningful assessment of academic program learning outcomes at MSU. Based on the AOC reports which identified strengths and weaknesses in the 2017-18 assessment activities, the Office of the Provost and the Center of Faculty Excellence (CFE) worked together to plan a workshop where groups of faculty from academic programs could learn more about assessment and share best practices with each other. The workshop was well attended by departments and attention was given to how to define meaningful assessment criteria and thresholds, identify student artifacts, and use assessment to inform decision-making about instruction and curricula.

#### Program Assessment Process

The development and implementation of an annual program assessment report template in 2018-2019 helped guide faculty to report specifically on how students are achieving student learning outcomes and how information gathered through program assessment is informing changes and improvements in curriculum. The new required program assessment report template is at the department-level and allows for departments to report on all of their academic programs in one document.

Each program assessment report includes a section where the department must report on whether or not the faculty are using specific processes as part of their assessment activity:

1) Assessment is consistent with established assessment planning

2) Population or unbiased samples of collected assignments are scored by at least two

faculty members using scoring rubrics to ensure inter-rater reliability.

3) The faculty reviewed the assessment results, and responded accordingly

4) Does your report demonstrate changes made because of previous assessment results

(closing the loop)?

Each program assessment report is assessed by at least two members of the AOC to see if it is incorporating these assessment activities and to provide feedback on how to improve these and other elements of assessment of the programs. The remaining sections request information on the program learning outcomes, threshold analysis, rubrics used to assess outcomes, results, and analysis. Lastly, programs are requested to consider their analysis and suggest changes they will make to improve their programs. Programs are also now asked to reflect on changes made based on prior assessment and discuss whether or not those changes have improved student learning in the program.

Assessment of the Assessment of Student Learning - Feedback and Institutional Reporting

Based on the 2017-2018 assessment cycle, the AOC generated feedback reports to each program/department. After the 2018-2019 assessment cycle, the AOC piloted annual aggregate reports at three levels. A program or department-level report, a dean-level report that provides information on program participation and general trends and recommendations in each college, and a university-level report that provides information on total program participation and identification of assessment progress across the university (all reports are available in the Box folders).

In the fall of 2020, MSU will begin the third complete assessment cycle and will work closely with departments to make sure that assessment is meaningful for the departments and has an impact on student learning. Each year there has been appreciable improvement of program assessment (the identification of student artifacts and the critical analysis of curriculum as they relate to program learning outcomes). The realization that assessment can be meaningful and informative for program/curricular improvements (and not just a box-checking activity) has become more apparent in the past two years. However, the AOC is also aware that its own processes should be assessed for continuous improvement and based on self-assessment the AOC is maintaining the use of institutional reports that provide feedback to departments, deans and the university community, but will refocus on working with faculty to use assessment to improve student learning. The AOC is also broadening the definition of closing the loop to include more than just formal changes to curriculum. Finally, based on these changes, the AOC will propose new performance indicators for Academic Program Assessment and will recommend to the Planning Council in Fall 2020 the adoption of performance indicators and thresholds for the Assessment of Student Learning at MSU.

The AOC is managing its third assessment cycle in 2020-21 and the process has been institutionalized, but improvement of the processes and refinement of the collection of appropriate data to demonstrate evidence of assessment of student learning and continuous improvement is ongoing.

#### Case Studies of Programmatic Continuous Improvement

Faculty at MSU care deeply about student learning and most programs provide experiential learning and research opportunities to their undergraduate and graduate students. While more formal assessment reporting processes were only established in the last 7-8 years, most academic programs at MSU have historically made changes to curriculum or courses based on discussions about student learning. Since our Year-Seven Evaluation in 2017, the AOC has made the effort to help academic programs use best practices to implement and document their continuous improvement practices. As an institution we are developing better methods for training faculty in curriculum design based on program and course learning outcomes, direct assessment of student artifacts and rubric design to capture accomplishment of program learning outcomes. As discussed above, the AOC, the Office of the Provost and the Center for Faculty Excellence is also working with departments to develop a culture of authentic discussions about the results of assessment, using assessment to inform decisions in the programs, and improving assessment so that it will be more impactful.

The two case studies selected for inclusion in MSU's mid-cycle report, a graduate program and an undergraduate program, have demonstrated programmatic continuous improvement as well as improvement in assessment practices since MSU's Seven-Year Evaluation in 2017.

Case Study #1: Bachelor Of Science In Animal And Range Science (See Appendix C for annual assessment reports from the Department of Animal and Range Science for 2017-18, 2018-19 and 2019-2020.)

The Department of Animal and Range Sciences houses the BS in Animal and Range Sciences which includes options in "Animal Science" and in "Natural Resources and Rangeland Ecology". Since 2016-17, they have used direct assessment to drive decision-making about instruction in their programs.

The Department of Animal and Range Sciences has engaged in authentic assessment of student learning and involved faculty across the curriculum in their assessment processes and their discussions about improving student learning in their two options. We have chosen them as an example because while they were one of the last departments to develop an assessment plan, they have thoughtfully worked to develop assessment practices in the past four years. They are truly representative of the progress MSU academic departments are making to improve learning and the level of involvement of faculty in these efforts.

#### Curriculum Map and Assessable Outcomes:

In 2016-17, the Department of Animal and Range Sciences met regularly to develop a curriculum map and to create assessable outcomes for their two options. While the options within the BS Animal and Science degree share some course and program learning outcomes, other learning outcomes are option specific. Both options identified specific program learning outcomes and mapped them to the courses in their curriculum. They then identified the particular courses where assignments, exam questions, projects and presentations were already assigned and could be used as embedded assessments. Below find, as an example, key elements of the Animal Sciences option's assessment plan.

#### Program Learning Outcomes:

Graduates earning a BS in Animal and Range Sciences and choosing the Animal Sciences Option will:

- 1. design and evaluate animal management systems by synthesizing and applying knowledge of biological processes related to animals and the rangeland plants that support them. [knowledge]
- 2. identify and critically evaluate scientific or technical animal science content to make informed decisions providing a foundation for lifelong learning. [critical thinking]
- 3. demonstrate effective oral and written communication to a range of audiences and within collaborative environments. [communication and collaboration]
- 4. use scientific principles to formulate questions, explore solutions, solve real-world problems and advocate based on science. [problem solving]
- 5. be able to actively engage in discussions of complex ethical issues in their profession. [ethics]
- 6. demonstrate animal husbandry and plant identification skills. [skills]

## Table 3.1: Curriculum Map: BS in Animal and Range Sciences, Animal Sciences Option I (introduce), D (develop), M (mastery) of Learning Outcomes

|   |    |   |   | С | utcomes | 5 |   |
|---|----|---|---|---|---------|---|---|
|   | Cr | 1 | 2 | 3 | 4       | 5 | 6 |
|   |    |   |   |   |         |   |   |
| AGSC 342 Forages                                    |    | D | Μ | D | D       |   |   |
| ANSC 215 Calving Management                         |    | Ι | Ι | Ι | Ι       | Ι |   |
| ANSC 222 Livestock in Sustainable Systems           |    | Ι | Ι |   | Ι       | Ι | Ι |
| ANSC 232 Livestock Management Sheep                 |    | Ι | Ι |   | Ι       | Ι | Ι |
| ANSC 234 Livestock Management Beef                  |    | Ι | Ι |   | Ι       | Ι |   |
| ANSC 308 Livestock Evaluation                       |    |   | Ι | Ι | Ι       |   | Ι |
| ANSC 316 Meat Science                               |    | D | Μ | Μ | D       | Ι | Ι |
| ANSC 320 Animal Nutrition                           |    | D | D | Ι | Ι       | Ι | М |
| ANSC 321 Physiology of Reproduction                 |    | D | D | D | D       | Ι |   |
| ANSC 322 Principles of Animal Breeding and Genetics |    | D | D | D | D       | Ι |   |
| ANSC 337 Diseases of Domestic Livestock             |    | D | D | D | D       | D |   |
| ANSC 416R Meat Processing                           |    | Μ | Μ | Μ | Μ       | Μ | Μ |
| ANSC 418 Topics in Beef Cattle Nutrition            |    | Μ | Μ | D | D       | D | М |
| ANSC 421 Assisted Reproductive Techniques           |    | D | D | D | D       | D | М |
| ANSC 432R Sheep Management                          |    | D | Μ | Μ | D       | D |   |

| ANSC 434 R Beef Cattle Management                  | М | D | D   | D   | Ι |   |
|--|---|---|-----|-----|---|---|
| ANSC 436 Professional Development in Beef Sciences | D | D | D   | D   | D |   |
| ANSC 437 Professional Development in Feedlot       |   |   |     |     |   |   |
| Systems  | D | D | D   | D   | D |   |
| ANSC 498 Internship                                | D | D | D   | D   | D |   |
| BIOM 405 Host-Associated Microbial Ecology         | D | D | Μ   | D   | D |   |
| EQUH 110 Western Equitation                        | Ι | Ι | Ι   | Ι   | Ι | Ι |
| EQUH 114 English Equitation                        | Ι | Ι | Ι   | Ι   | Ι | Ι |
| EQUH 207 Intermediate English Equitation           | D | D | D   | D   | D | D |
| EQUH 210 Intermediate Western Equitation           | D | D | D   | D   | D | D |
| EQUS 233 Horse Science and Mgmt Lab                | Ι | Ι | Ι   | Ι   | Ι | Ι |
| EQUH 253 Starting Colts                            | D | D | D   | D   | D | D |
| EQUH 256 Developing the Young Horse                | D | D | D   | D   | D | D |
| EQUH 314 Equestrian Instruction Methods            | D | D | D/M | D/M | D | D |
| EQUS 206 Equine Ethology                           | D | Ι | Ι   | Ι   | Ι | Ι |
| EQUS 327 Equine Lameness                           | D | D | D   | D   | D | D |
| EQUS 346 Equine Reproduction Management            | D | D | D   | D   | D | D |
| EQUS 410 Equine Exercise Physiology                | D | D | D   | D   | D | D |
| EQUS 423 Equine Nutrition                          | Μ | Μ | D   | D   | D | Μ |
| NRSM 101 and 102 Natural Resource Conservation     | Ι | Ι | Ι   | Ι   | Ι |   |
| NRSM 235 Range and Pasture Monitoring              | D |   | D   |     | D |   |
| NRSM 240 Natural Resource Ecology                  | Ι |   |     | D   |   |   |
| NRSM 353 Grazing Ecology and Management            | D | D | Μ   | D   | D |   |
| NRSM 453 Habitat Inventory and Analysis            |   |   | Μ   |     | D |   |
| NRSM 455 Riparian Ecology and Management           | М | Μ | М   | М   | Μ |   |
|  |   |   |     |     |   |   |

Faculty then identified specific embedded assessments (assignments, presentations, projects, exam questions) that could be used to assess student performance on the various program learning outcomes.

#### Table 3.2 Student Performance: Data Sources

|  | Outcomes |   |   |   |   |   |   |
|--|----------|---|---|---|---|---|---|
|  | Cr       | 1 | 2 | 3 | 4 | 5 | 6 |
| ANSC 316 Meat Science                      |          |   | Х | Х |   |   |   |
| ANSC 416R Meat Processing (presentation)   |          |   |   | Х | Х |   |   |
| ANSC 432R Sheep Management                 |          |   | Х | Х |   |   |   |
| ANSC 434 R Beef Cattle Management          |          | Х |   |   |   |   |   |
| ANSC 418 Topics in Beef Cattle Nutrition   |          |   |   |   |   |   |   |
| Or EQUS 423 Equine Nutrition               |          | Х |   |   |   |   |   |
| ANSC 421 Assisted Reproductive Techniques  |          | Х | Х | Х | Х | Х | Х |
| BIOM 405 Host-Associated Microbial Ecology |          |   |   |   |   |   |   |
|  |          | Х | Х | Х | Х | Х | Х |

Assessment Implementation:

Since the development of the assessment plans for the Animal Sciences option and the Natural Resources and Range Management option, the department has assessed at least two program learning outcomes for each option every year. Their full reports are included in Appendix C. The department's reports provide evidence of the use of embedded assessments, multiple assessors to ensure inter-rater reliability, and real consideration and discussion by faculty in each option to consider strengths and weaknesses of students' performance on the various PLOs, and possible solutions to help improve student performance.

#### Valid Results:

The department considers the validity of its indicators and improves the indicators when the faculty identify concerns about validity. This has resulted in the creation or identification of new course embedded assessments that better capture the program learning outcomes and lead to greater alignment between course and program learning outcomes. For example, the Animal Sciences option, while teaching to PLO 5 (ethics) in different ways across their curriculum, created a course tutorial in ethics utilizing the American Registry of Professional Animal Scientist's Code of Ethics and a quiz designed to assess student performance. These were embedded in both a lower and an upper-division course so they could compare student performance early and later in the curriculum.

#### Annual Feedback on Assessment:

Each department and their programs received AOC feedback reports sent to the Department Head in Animal and Range Sciences in 2017-18 and 2018-19. Feedback for 2019-20 will be sent out in Spring 2021. The feedback from the AOC to the department head included comments such as:

"It seems that the data sources are there, but I would like to see a one-sentence description of the assignment, to more clearly see the link between the assignment and the outcome."

"Excellent use of rubrics and thoughtful analysis of results."

"With plans for improvement identified, a method when these changes will occur and how they will be evaluated is important to include."

"This (ethics exam) is a great example of assessing a difficult concept. The exam may be further refined by the development of a rubric (so that a range of understanding or demonstration can be observed)."

If faculty have questions about feedback, they contact the Office of Academic Affairs and the Assistant Provost, Vice Provost or an AOC member from their College can work with the department to answer questions and provide individual assistance to the faculty around assessment and continuous improvement of student learning.

#### Results are Used:

The Department of Animal and Range Sciences has consistently used assessment to improve their curriculum and better align course learning and assessment in courses with Program Learning Outcomes. It is also evident, based on their reports that the faculty in the two options participate in assessing student artifacts and have thoughtful discussions about the strengths and weaknesses they see in student work. The following table documents examples of changes made to assignments or class instruction to improve student learning. These were a direct result of the department's assessment process.

| Table 5.5. Currentain improvements implemented Based on Hosessment |   |  |  |  |  |
|--|---|--|--|--|--|
| Assessment   | Option/Program learning   | Program improvement and improvement of assessment  |  |  |  |
| year   | outcome   | to better inform decision-making about course  |  |  |  |
|  |   | assignments in alignment with PLOs   |  |  |  |
|  |   |  |  |  |  |
| 2017-18  | AS/ Demonstrate effective<br>oral and written<br>communication to a range of<br>audiences and within<br>collaborative environments. | Faculty can do a better job of articulating the assignment<br>expectations and standards and we need to find a more<br>effective way to assess communication within<br>collaborative environments. |  |  |  |

#### Table 3.3: Curriculum Improvements Implemented Based on Assessment

| 2017-18     | NRRE/ Demonstrate effective    | Instructors should provide more opportunities for oral  |
|-------------|--------------------------------|---|
|             | oral and written               | presentations in their courses where students are       |
|             | communication to a range of    | critiqued and are able to present again. Currently NRSM |
|             | audiences and within           | 353 and 455 include presentation opportunities now.     |
|             | collaborative environments.    |   |
| 2019-20     | NRRE/Demonstrate the           | Strengthen the connection between data and              |
|             | ability to develop sustainable | management recommendations for students in our          |
|             | management and habitat         | courses. Provide exemplar student written management    |
|             | restoration plans by           | plans and break these down for students.                |
|             | synthesizing and applying      |   |
|             | knowledge of rangeland and     |   |
|             | wildlife ecology, soils, and   |   |
|             | vegetation.                    |   |
| AS = Animal | Science Option, NRRE = Natural | Resources and Rangeland Ecology Options                 |

The reports from the faculty in the two options in the Department of Animal and Range Sciences demonstrate a breadth of participation by faculty in assessment practices. Faculty have participated in providing and assessing student artifacts, presenting the results of assessment to the faculty, and participating in option specific and department wide conversations about assessment.

<u>Case Study #2: PhD in Chemistry/PhD in Biochemistry</u> (See Appendix C for biannual assessment reports for the Graduate Degrees in the Department of Chemistry and Biochemistry submitted Fall 2016 and Fall 2018)

The Department of Chemistry and Biochemistry has developed a streamlined but sophisticated assessment of program learning outcomes that integrates the use of direct and indirect assessment. The process of defining common learning outcomes for the two research-focused PhD programs was a challenge, but it has resulted in the implementation of additional formal training and professionalization to help students achieve those outcomes. The department has seen a reduction in attrition in their PhD programs over time and while they would not say it is the result of assessment, they would acknowledge that defining learning outcomes has resulted in requirements for training around ethics and lab safety.

Graduate programs at MSU report on assessment every other academic year because of the small number of students and graduates in most programs. The PhD programs in Chemistry and Biochemistry share learning outcomes and have one of the larger graduate programs at MSU.

The doctoral degree curriculum in Chemistry and in Biochemistry emphasize developing expertise in a field of Chemistry or Biochemistry and students will take courses to prepare them for working with faculty in a range of specialty areas including chemical synthesis, microbiological manipulations, chemical structure, spectroscopic techniques, and mechanism at the molecular level. Students take coursework to help prepare them for passing qualifying exams in at least three areas. The American Chemical Society (ACS) exams are offered in analytical, biochemistry, inorganic, organic and physical chemistry. Non-ACS exams in structural and molecular biology, and microbiology are offered as well. These qualifying exams are offered 4 times a year and are taken in the first year of the program. These provide evidence of basic proficiency and knowledge in at least three areas, but it is the research in faculty labs and independent research that helps the student develop and master skills, knowledges and methods that are identified in the program learning outcomes.

#### Assessable Outcomes:

The Department of Chemistry and Biochemistry identified seven program learning outcomes for their PhD programs in 2014 when they first established an assessment plan for their PhD programs.

| Program Learning Outcomes   | Type of Assessment  |
|---|---|
| 1. Demonstrate mastery of subject content knowledge.  | Rubric used at the time of the dissertation defense   |
| 2. Demonstrate effective oral and written communication skills.   | Rubric used at the time of the dissertation defense   |
| 3. Conduct independent research and analysis in their discipline and contribute original and substantive work in their field.   | Rubric used at the time of the dissertation defense   |
| <ol> <li>Demonstrate independent scientific thinking and<br/>advanced knowledge in their current discipline and in<br/>related areas of their discipline.</li> </ol>  | Rubric used at the time of the dissertation defense   |
| 5. Demonstrate knowledge of basic lab safety and the requirements to assist in establishing safe lab environments.  | Attendance safety training, ethics module<br>and training, and CITI training and<br>certification |
| <ol> <li>Understand ethical issues and responsibilities<br/>especially in matters related to professionalism, data<br/>collection, the laboratory setting and in writing and<br/>publishing theses, dissertations and scientific papers.</li> </ol> | Attendance safety training, ethics module<br>and training, and CITI training and<br>certification |
| <ol> <li>Professionalization into the field of study:<br/>publications, presentations, attended conferences,<br/>funded fellowships, and professional association<br/>activities.</li> </ol>  | Thesis points document (required<br>submission by each student before their<br>defense).          |

Table 3.4: Program Learning Outcomes and Type of Assessment Used

Assessment Implementation:

The department tracks student success on the seven program learning outcomes which include measures of direct and indirect assessment and also tracks performance metrics such as success on qualifying and comprehensive exams, attrition rates, time to graduation, and graduation.

The department instituted the dissertation defense assessment of PLOs 1-4 in Fall 2014, identified training and certification to make sure that students were learning and mastering safety protocols and research ethics, and defined a measure of the performance of professionalism in Chemistry and Biochemistry. The faculty have collected and reflected on data, performed direct assessment after reading student work and attending student oral defenses, and they have demonstrated a commitment to teaching and measuring student learning of their program outcomes.

#### Valid Results:

The department created rubrics to measure PLOs 1-4. These rubrics are included in their assessment reports in Appendix C. The rubrics are scored at the defense based on the students written and oral presentation and the demonstration of knowledge embedded in their dissertation. Use of these rubrics has been reviewed and the department has determined that they provide a clear distinction among unacceptable, acceptable and exceptional performance for the four PLOs.

The department also identified elements such as publications, presentations, attended conferences, funded fellowships, and professional association activities that demonstrate professionalism as academic or professional Chemist or Biochemist. They originally planned to measure this with a CV from each student but found it difficult to obtain CVs from graduate students and now use an existing graduate student reporting document that provides evidence for PLO seven.

Annual Feedback on Assessment:

AOC feedback on the PhD program assessment for the doctoral degrees in Chemistry and Biochemistry were provided to the Department Head on their 2016-18 report. Feedback for 2018-20 will be sent out in Spring 2021. The feedback from the AOC to the Department included feedback such as:

"Excellent description of assessment data and how they were used to address PLO's. Although not included, the use of a rubric to assess student achievement is very good. It would be helpful to have that information included as an example to other programs."

"Strengthen your assessment of "knowledge of ethical issues and responsibilities". It does not seem to be a very strong PLO if training and no assessment is required to fulfill this outcome."

"For future reports, include notes from the discussion on improving the program based on the assessment."

The program was encouraged to think about ways of strengthening student performance even if they are meeting all of the thresholds they have identified.

#### Results are Used:

The department has considered revising and perhaps combining learning outcomes one and four since there is overlap in how they measure the two using the rubric during the dissertation defense. They have also shifted from using CVs to using the graduate schools progress report to measure professionalism. The department reported that attrition was quite high in prior years and that the collection of data on PLOs and on other metrics such as attrition, years to degree and completion will help them identify and respond to any disturbing shifts in these important metrics. This is particularly important since the program has more than doubled the number of graduating students since 2012.

#### PART 4: MOVING FORWARD

The institution must provide its reflections on any additional efforts or initiatives it plans on undertaking as it prepares for the Year Seven Evaluation of Institutional Effectiveness Report.

MSU will need to fully institutionalize the processes and use of data to inform decision-making described above in order to prepare for the Year Seven Evaluation of Institutional Effectiveness Report. The next year is key and will be challenging as we will be implementing new processes and making some changes to existing processes at the same time as faculty and administrators are facing the increased demands associated with maintaining high-quality and effective education during COVID-19 pandemic. Higher education is experiencing rapid change and with such change come incredible opportunities. MSU hopes to be able to take advantage of these opportunities while still supporting our faculty and students in their many endeavors. We believe that the following efforts will help us do so.

Institutional Effectiveness and Using Data to Inform Decision-Making

The new strategic plan, "Choosing Promise," articulates MSU's mission, values, areas of intentional focus and associated objectives that are the basis for MSU's definition and interpretation of mission fulfillment presented in part one of this report. In our Mission and Core Themes Report submitted in Spring 2019, we outlined objectives, current strategies, performance indicators and thresholds for each area of intentional focus (see updated versions in Appendix A, Tables A.1 through A.3) that set up a clear cycle of performance, assessment, review of success at multiple-levels (strategy, objective and intentional focus area), review of performance indicators and mission fulfillment to inform future planning and budgeting (see Figure Addendum.1 under the response to recommendation 4).

This process will direct MSU's efforts to assess both strategies and performance indicators and to make datainformed decisions about the use of resources on an annual basis using a new Institutional Effectiveness Council includes as members the chairs of the existing councils and senates which include <u>Planning Council</u>, <u>Budget Council</u>, <u>Research Council</u>, <u>Outreach and Engagement Council</u>, <u>Academic Council</u>, <u>Diversity and</u> <u>Inclusion Council</u>, <u>Faculty Senate and Student Senate</u>.

Spring 2020 marked the end of the first complete academic year guided by our new strategic plan and the first cycle of strategy effectiveness assessment reports were submitted in Summer 2020 (see Appendix D for several examples of these reports) and will be reviewed in the Fall by the Intentional Focus Strategy Effectiveness Teams who will each report out to the Institutional Effectiveness Council (IEC). The discussion and interpretation by the IEC will inform the work of the Planning Council who make recommendations that inform budgeting.

After this first implementation, MSU will assess the process and make improvements based on recommendations from those who participated. In Appendix A, Tables A.4 through A.8 you will find a copy of the framework for the IEC and the IFSETs along with the selected objectives and initial strategies MSU will track and assess to demonstrate fulfillment of its mission. We know that additional strategies will emerge and be tracked and that some may be abandoned over the next four years.

#### Assessment of Student Learning

The Assessment and Outcomes Committee (AOC) will continue to support and provide feedback about the assessment of student learning outcomes. The AOC is having discussions in Fall 2020 about making some changes to the assessment report templates so that they recognize a broader range of the types of decisions or changes that are directed at program improvement and collect information on how these were implemented. An interesting outcome of all the assessment training offered to units has been the focus by departments on how they are improving their assessment processes. The review of the assessment efforts of the past three

years provides considerable evidence of the investment by academic departments in the process of assessment. However, now that academic departments better understand the assessment process and most departments are discussing student accomplishment of program learning outcomes, it is important for the AOC and the Office of the Provost to support departments in their efforts to document and track changes (instruction, assignments, curricula, program learning outcomes, prerequisites, etc.) and whether these result in improvements in the accomplishment of program student learning outcomes.

There is always room for improvement and in 2020-21 the AOC will provide a clearer definition of "closing the loop" as most programs reported that they were not closing the loop because they were not changing their curriculum maps when in fact they were documenting in their assessment reports changes to classroom instruction, altering course assessment strategies, changing course learning outcomes, or improving the bridging of knowledge from lower-division to upper-division courses so that students better understand that the curriculum is cumulative. All of these changes might impact student learning, but departments have not been defining these types of changes as curricular changes in the sense of creating or eliminating courses, altering curriculum maps, or changing program learning outcomes.

The AOC will also identify specific performance indicators for Academic Program Assessment and will recommend to the Planning Council in Fall 2020 the adoption of performance indicators and thresholds for the Assessment of Student Learning at MSU. If the suggestions are adopted, the AOC will begin collecting data to measure performance in these areas in the next assessment cycle (2020-21).

#### Assessment of the MSU Core Curriculum

In 2018, MSU faculty took on the goal of general education reform with the reinvigoration of MSU Core learning outcomes. Previous learning outcomes and assessment practices for the Core 2.0 were unwieldy with multiple committees managing assessment of different areas of the distributional core and no overarching assessment of Core 2.0 as a program. The existing process assessed student achievement of learning outcomes in some distributional areas, however, organized assessment of Core 2.0 as a program was not well developed.

The first step in the process to reinvigorate the Core was to reestablish the <u>Core Curriculum Committee</u>. This committee is now comprised of faculty members from each of the university colleges and one additional atlarge member to be nominated by Faculty Senate. From 2018-2019 committee members coordinated listening sessions and conversations throughout the university talking about what knowledge, skills and habits of mind faculty, staff and students value for MSU graduates. Planning for improvements and changes to Core 2.0 had failed twice before and so the Committee was cautious to limit the focus of changes at this time to identifying new learning outcomes while maintaining the current distributions. These new outcomes, referred to as "MSU Core Qualities" are now the foundation for a new culture of continuous improvement through assessment as they were approved by Faculty Senate in Spring 2020. The MSU Core is implementing these new learning outcomes which call for the integration of education in communication, thinking and problem solving, and local and global citizenship with knowledge and experiences in the natural, social and mathematical sciences, the arts, and the humanities.

Keeping in mind that we wanted to implement authentic assessment of our Core curriculum, the Core Curriculum Committee developed an assessment process that would be both manageable and useful. As the committee awaited Faculty Senate approval of the new learning outcomes, the committee moved forward on the assessment process, using the Fall of 2019 to assess thinking and problems solving in Core 2.0 courses that had historically included a learning outcome on critical or creative thinking.

This initial assessment year for the new MSU Core program, provided a wealth of information and is described in the Core Assessment Report (see Appendix D). The Core Assessment Report will be shared with

Academic Council at their September 2020 meeting and with Faculty Senate Steering Committee and Faculty Senate in the last week of September 2020.

| Table 4.1: MSU Core Assessment Cycle |                                  |  |  |
|--------------------------------------|----------------------------------|--|--|
| Year                                 | Outcomes Assessed                |  |  |
| AY19-20                              | Thinker and Problem Solver       |  |  |
| AY20-21                              | Communicator                     |  |  |
| AY21-22                              | Local and Global Citizen         |  |  |
| AY22-23                              | Perspectives (distributions) and |  |  |
|                                      | Core Program as a whole.         |  |  |

This plan for implementation and assessment of the new MSU Core will be challenging during a time when the faculty are learning and implementing new pedagogies and technologies. However, we will work with Faculty Senate and the academic departments to implement in a way that is sensitive to the many demands that our faculty and students face during the COVID-19 pandemic.

MSU is confident that informed decision-making based on the continuous improvement of the 1) strategies we use to improve institutional performance on objectives critical to our land-grant mission and 2) academic programs will help MSU serve students with transformation learning experiences, produce scholarship that improves lives, and expand engagement through collaborations with the communities we care deeply about.

#### PART 5: ADDENDUM: PRIOR RECOMMENDATIONS 2, 3, 4

Institutions which have been asked to address prior recommendations or which have been asked to address any transitional efforts to the 2020 Standards may be included in an Addendums section.

Montana State University received a letter dated January 24, 2018 from NWCCU President Marlene Moore reaffirming MSU's accreditation and noting the four revised recommendations where MSU was substantially in compliance with NWCCU standard but in need of improvement. MSU submitted an addendum to the Spring 2019 Mission and Core Themes Report that addressed Recommendation 1 and received notification dated July 12, 2019 that NWCCU found, based on that addendum, that MSU had fulfilled Recommendation 1 from the Fall 2017 Year Seven Evaluation.

MSU was also asked to submit an addendum to the Fall 2020 Mid-Cycle Report to address the revised recommendations 2, 3 and 4 of the Fall 2017 Year Seven Evaluation Report.

Recommendation 2: Inform core theme planning via the consistent collection of appropriately defined data that are analyzed and used to evaluate the accomplishment of the core theme objectives. (Standard 3.B.3.)

Recommendation 3: Document, through a more effective, regular, and comprehensive system of assessment of student achievement, that students who complete any of its educational courses, programs, and degrees, wherever offered and however delivered, achieve identified course, program, and degree learning outcomes. (Standard 4.A.3.)

Recommendation 4: Consistently uses assessment results to make determinations of quality, effectiveness and mission fulfillment and communicates its conclusions to appropriate constituencies and the public. (Standard 5.A.2)

In our annual report submitted in July 2020, we summarized key work being done to address each recommendation. Below we address each recommendation, outlining the steps taken by the institution to improve compliance with the NWCCU standards identified.

Recommendation 2: Inform core theme planning via the consistent collection of appropriately defined data that are analyzed and used to evaluate the accomplishment of the core theme objectives. (Standard 3.B.3.)

As outlined in MSU's Mission and Fulfillment Report, over a 12-month period in 2018 MSU developed a new strategic plan with three core themes which MSU calls areas of Intentional Focus (IF). These include:

Intentional Focus 1: Transformational Learning Intentional Focus 2: Scholarship that Improves Lives Intentional Focus 3: Expanding Engagement

The institution has identified or will identify measurable and assessable performance indicators for each IF (see tables A.6-A.8 in Appendix A). The performance indicators identified at the top of each IF table will be tracked annually and compared to institutional thresholds. These comparisons will provide a direct assessment of the accomplishment of each institutional focus area derived from the institutional mission.

In order to include a more holistic assessment of the strategies used by the institution to meet its core theme objectives, IF Strategy Effectiveness Teams (IFSETs)2 will review progress on the IF performance indicators

<sup>&</sup>lt;sup>2</sup> The IFSETs include representatives with knowledge of the particular IFs and include representatives from Colleges, Academic Council, Planning Council, and Budget Council. The new strategic plan was implemented in January 2019 and the IFSETs reviewed strategy assessment reports for the first time in Fall 2020 in order to ensure an annual cycle of review and assessment of institutional effectiveness using data from the past academic year. This process provides clear

but will also assess accomplishment of each Intentional Focus through a quantitative assessment of and qualitative assessment of the strategies being used to achieve IF objectives. The IFSETs were designed (see framework and membership in Appendix A, Tables A.4-A.8) to assess effectiveness based on the assessment of the strategies we are using to meet IF objectives, to evaluate the accomplishment of IFs, and to better inform planning around the IFs (areas of intentional focus in our strategic plan) and IF objectives. Each IFSET will review assessment reports for each strategy and assign scores across four areas (performance, appropriateness, assessment and environmental responsiveness) using the Strategy Effectiveness Rubric (see Table 1.1 in Part one of this report).

These effectiveness scores will be averaged for strategies for each IF objective and across the IF to indicate a level of Institutional Effectiveness for each IF objective and the IF along a clearly defined scale described in Table 1.2 in part one of this report. Each IFSET will produce and submit an annual report documenting the effectiveness of individual strategies, accomplishment of IF objectives and an average effectiveness score to the Institutional Effectiveness Council (IEC), who will make an annual determination of progress towards mission fulfillment and will determine mission fulfillment for MSU's Year Seven Evaluation of Institutional Effectiveness Report.

Recommendation 3: Document, through a more effective, regular, and comprehensive system of assessment of student achievement, that students who complete any of its educational courses, programs, and degrees, wherever offered and however delivered, achieve identified course, program, and degree learning outcomes. (Standard 4.A.3)

In the Fall of 2017, MSU launched a fully revised process for the review and improvement of program assessment. Previous to 2017, academic departments would submit their annual program assessment reports and were not provided any feedback or recommendations regarding improvement of their programs or of their assessment processes. As of Fall 2020, the annual assessment for undergraduate programs and biennial assessment for graduate programs will have completed its third year. Templates for program assessment were redesigned and are available on the program assessment website at

https://www.montana.edu/provost/assessment/program\_assessment.html

This new process has led to significant improvement in reporting, assessment and improvement of programs. The first year focused on the process, having departments look more critically at their assessment and improve their program learning outcomes to be more assessable, develop a more critical means of determining student success, and a more holistic approach of reporting results to and engaging faculty in a discussion of student learning. Based on the review by the Assessment and Outcomes Committee (AOC), the second year (2018-19) saw a marked improvement in meaningful assessment. Year two also added a layer of feedback as each department received a report from the AOC providing feedback on the unit's assessment and ideas for systemic improvement of their assessment processes. The AOC also assessed their own activity. Consequently, in year two the AOC, in conjunction with Center for Faculty Excellence, offered workshops to help departments reconfigure their program assessment to be more effective including:

- Charting a Course with Learning Outcomes to Enhance Student Learning and Success o https://www.montana.edu/calendar/events/27428
- Evaluating Program Learning Outcomes o https://www.montana.edu/calendar/events/29138

In the roll-out for year three, two new templates were developed to assist departments and allow departments to do an overall revision of their assessment plans especially if the AOC had found significant issues with the assessment the department provided in the prior year. The first new template provided programs an option to

documentation to support how MSU is informing IF planning using the consistent collection of appropriately defined data that are analyzed and used to evaluate the accomplishment of the IF objectives.

request a "re-evaluation year", and directs proposers to outline what needs to be developed, how that will occur, and who will be involved. More programs than anticipated took advantage of this "year 0" assessment planning year. This template has been revised by the AOC based on feedback from users and the second template will be new in the Fall of 2020 for programs that request a planning year. The "year 0" report requires information on their new assessment process, updated outcome objectives, and alignment with student success. It also requires programs to review past assessment and report on areas of strengths and areas of opportunity. Most importantly, additional assistance will be offered to programs requesting a "year 0" report to be certain that they are designing assessment that results in action.

#### Program Assessment Process:

Every fall semester, all undergraduate programs must submit either a completed assessment of the previous year or if the AOC identified substantial weaknesses in their assessment approach in the prior year, they may request to submit a "year 0" report. The "year 0" option allows for a year of department-wide assessment planning to improve assessment processes, refine program learning outcomes, revise mapping of course learning outcomes to program learning outcomes, identify student artifacts, and design a process that encourages maximum participation of instructional faculty in discussion about continuous improvement of student learning and achievement. Graduate programs are scheduled biannually because of the size of enrollment in those programs, but the process outlined below is the same for both graduate and undergraduate programs.

Program assessments reports have been due annually on September 15. During the fall semester, the AOC reviews all submitted program assessments and provides specific feedback to each department on their assessment processes. The feedback is collected in a survey format to provide a common rubric for all analyses. The AOC has noted that the September 15 deadline (Typically the beginning of the third week of Fall instruction) is not conducive to allowing programs sufficient time to assess performance, write reports and have time to thoughtfully consider and discuss the assessment before the reports are due. Hence, the AOC is considering moving the deadline to later in the Fall semester to facilitate programs having the productive conversations that support continuous improvement. Fall 2020 deadlines have been extended so that faculty can focus on providing high quality instruction in the varied modalities (blended, online synchronous or asynchronous, in person) and with the new dimension of face coverings and social distancing.

In the Spring semester, feedback from the AOC is distributed to academic constituencies. In Spring 2020, department heads received a report on the programs in their unit and they were able to share AOC feedback with their faculty in order to improve assessment and improvement. College Deans received an aggregate report for all the departments in their college and the Provost received copies of the College reports as well as a University report.

#### Documentation of Student Achievement and Success:

With the implementation of the new assessment process and cycle, programs are more focused on assessment that can inform them on desired student achievement. One of the most significant systemic improvements that have been observed in assessment reports, is the more introspective analysis of program curriculum. Over the last three years there has been a doubling in curriculum updates submitted for approval through the university's curriculum and program committee (CPC). In 2018, 69 courses submitted changes based in part on program assessment, in 2019 there was 65, but as of June 10th, 2020, there has been over 150 course updates. Examples include programing to provide more student experiential learning, more emphasis on critical thinking, program management to improve student completion, and curriculum that is designed specifically to address deficiencies identified through program assessment. We would also refer you to the representative examples of program assessment in MSU's Mid-Cycle Self-Evaluation Report (see Appendix C). These were selected to be representative of the type of assessment our units are doing.

As MSU prepares to review the 4th year of the program assessment under the new process, there is increasing evidence that a culture of program assessment has been established. The process has been refined to be both

meaningful and sustainable, but the AOC continues to review its own processes and will take steps to refine data collection and define thresholds for the Assessment of Student Learning at MSU. This process meets the recommendation for an effective, regular, and comprehensive system of assessment of student achievement. The design of the assessment templates guides program faculty to consider the success of their students as they progress through their program and the feedback from the AOC helps units improve their assessment processes to be more meaningful. As a result, the process of assessment of learning outcomes can provide the necessary feedback for continued quality improvements.

# **Recommendation 4:** Consistently uses assessment results to make determinations of quality, effectiveness and mission fulfillment and communicates its conclusions to appropriate constituencies and the public. (Standard 5.A.2)

Since 2017, MSU has refined the process of assessment to provide information that can be utilized in meaningful ways to improve student success, institutionalize continuous improvement, and make determinations of institutional effectiveness and mission fulfillment.

Over the past 10 years, MSU has consistently tracked our progress towards the core theme objectives in our 2012-2019 Strategic Plan, "Mountains & Minds: Learners and Leaders." Annual strategic plan progress reports have been shared publicly at https://www.montana.edu/strategicplan/archive/index.html and hard copies have been mailed to faculty, staff and stakeholders. Progress on the various Core Themes were reported out every other month at University Council and notes about these reports are available in the minutes at https://www.montana.edu/strategicplan/archive/index.html. Planning Council also reviewed the performance indicators, targets, and progress towards objectives identified in the Strategic Plan. These processes continue with the new plan at the Planning Council website. While assessment was used to make judgements about the quality and effectiveness of strategies and these informed MSU's conclusions about mission fulfillment, the Year-Seven evaluation team determined that MSU was not documenting the cycle of assessment clearly and consistently. Over the first, full-year, of the new Strategic Plan, MSU has made substantial progress in establishing institution-wide processes for ongoing, comprehensive, and systematic assessment and evaluation of mission fulfillment. This progress was initiated through the development of clear and measurable performance indicators. MSU's new strategic plan was implemented in January 2019 with the revised mission and core themes approved by the Board of Regents in March 2019. The first cycle of review of performance indicators, assessment of strategy effectiveness and core theme objective performance, institutional effectiveness, will be implemented in Fall 2020.

In the interest of developing a transparent and sustainable process of evaluation, MSU has created an Institutional Effectiveness Committee (IEC) whose charge is to review Intentional Focus Strategy Effectiveness Team (IFSET) reports, make an annual determination of progress towards mission fulfillment, annually review appropriateness of performance indicators for mission fulfillment and determine mission fulfillment for MSU's Year Seven Evaluation of Institutional Effectiveness Report. Annual reports will be posted for transparency each Fall on the Institutional Effectiveness website and Council Chairs will share these reports with their respective councils to inform planning and to refine effectiveness, assign resources, and improve student learning and acheivement. The IEC is comprised of Vice-Presidents and other key administrators who have oversight over the Councils that are advisory to the President around Planning, Budgets, Diversity and Inclusion, Academics, Outreach & Engagement, Research as well as Faculty and Student Senate representatives.

In addition, beginning in Fall 2019 performance indicators from MSU's strategic plan are being tracked annually and progress on different indicators will be shared at University Council meetings which are open to the public. Performance indicators are posted on the Planning Council website under Goal Updates.

Consistent with the elimination of Core Themes from the 2020 NWCCU standards, MSU will not use the term core themes in the future. However, we have aligned our process of assessment and improvement of strategic initiatives in the three areas of intentional focus from MSU's Strategic Plan, "Choosing Promise."

MSU chooses to use the language of "intentional focus" instead of core themes because that is the language of MSU's strategic plan.

Institutional Effectiveness Structure:

In order to institutionalize more effective decision-making and inform resource allocation, the establishment of an Institutional Effectiveness Council (IEC) and Intentional Focus Strategy Effectiveness Teams (initially Core Theme teams) was prioritized. The IEC includes the Chairs of MSU's existing leadership councils except the University Council which is chaired by the President. The charge for each of these groups is identified below and their annual reports will be posted to the Institutional Effectiveness website each Fall.

- 1) Intentional Focus Strategy Effectiveness Teams (IFSETs):
  - a. **Charge:** Assess strategy effectiveness reports and score strategy effectiveness for each Intentional Focus objective and the Intentional Focus using a clearly defined scale. Each IFSET will submit a Fall report documenting the effectiveness of individual strategies, accomplishment of IF objectives and an average effectiveness score to the Institutional Effectiveness Council (IEC).
  - b. Submit annual report to Institutional Effectiveness Council. Also provide feedback to individual units about assessment and continuous improvement.
- 2) Institutional Effectiveness Council (IEC):
  - a. **Charge:** Review Intentional Focus Strategy Effectiveness reports, make an annual determination of progress towards mission fulfillment, annually review appropriateness of performance indicators for mission fulfillment and determine mission fulfillment for MSU's Year Seven Evaluation of Institutional Effectiveness Report. Council Chairs who make up the IEC will share these reports with their respective councils to inform planning and to refine effectiveness, assign resources, and improve student learning and acheivement.

#### Comprehensive Assessment:

MSU's strategic plan, "Choosing Promise," articulates the university's strategic direction and will serve as its roadmap through 2024. It states the university's mission, vision and values. It also lists areas of intentional focus and goals, as well as metrics that will be used to measure progress toward those goals and the specific actions needed to help reach them. MSU's process of institutional assessment is comprehensive, addressing key objectives associated with the Intentional Focus Areas from MSU's strategic plan. MSU tracks our progress toward the selected objectives for mission fulfillment by establishing performance indicators for individual strategic initiatives, Intentional Focus objectives and each area of Intentional Focus. The end of Spring semester 2020 marked the end of the first full academic year under the new plan and in Fall 2020, MSU will initiate a revised continuous improvement process (see Figure Addendum.1) to institutionalize the assessment of strategic initiatives to inform decision-making.

#### Systematic Assessment:

With the new intentional focus areas, and the development of specific and measurable outcomes, the mechanism for systemic and sustainable assessment of mission fulfillment is well in hand. MSU has developed the outline for assessment, the mode by which outcomes can be reviewed, and the oversite to provide feedback and institutional response to recommendation based on data (both quantitative and qualitative). In Fall 2020, the first assessment cycle utilizing this methodology will be completed. The evaluation of the process and the results will be incorporated into the following assessment cycles to demonstrate MSU's commitment to continued quality improvement.





Continuous Improvement:

Our institutional assessment plan guides us toward mission fulfillment and provides a framework for building a culture of continuous improvement as we set and communicate objectives and goals, adjust to improve performance, achieve goals and identify new objectives. The new intentional focus is a significant enhancement to MSU's ability to demonstrate mission fulfillment, but perhaps even more importantly, will guide the institution in ways to continually improve on activities and initiatives that will enhance our student's success and experiences.

MSU has successfully developed a comprehensive planning process that integrates the roles and responsibilities of formal governance groups with a set of complementary advisory committees. This newly developed governance system provides a strong foundation for campus wide participation in the strategic decision-making process. Moreover, the use of assessable, meaningful and verifiable metrics linked to the core themes and mission will enable the university to engage in meaningful assessment and continuous improvement. The comprehensive approach to assessment supports our value of evidence-based, transparent decision-making that is aligned with the mission and strategic plan. MSU is committed to the process of consistently using assessment results to make determinations of quality, effectiveness and mission fulfillment, and to communicate its conclusions to appropriate constituencies and the public.