

MONTCLAIR STATE UNIVERSITY
Office of the Provost



ASSESSMENT GUIDEBOOK

Second Edition

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The Purpose of This Guidebook

Welcome to assessment! Assessment is the key to unlock what has actually been learned. This manual will take you through the steps, complete with examples, to implement assessment activities into your teaching to enhance your students' educational experience. The purpose of this guide is to lead to reflection on each academic program's learning goals and student's ability to achieve those learning goals. It was developed using numerous references, Palomba & Banta, Suskie, Huba and Freed, and adheres to the Middle States Commission on Higher Education (MSCHE) guidelines for accreditation.

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PART I

What is Assessment?

“Assessment is the *ongoing process* of establishing clear, measurable expected outcomes of student learning, ensuring that students have sufficient opportunities to achieve those outcomes, systematically gathering, analyzing, and interpreting evidence to determine how well students learning matches the expectations and using the resulting information to understand and improve student learning.”

--L. Suskie, 2009

“Assessment is the process of gathering information from multiple sources in order to develop an understanding of what students know, understand and can do with their knowledge as a result of their educational experience. The process culminates when assessment results are used to improve subsequent learning.”

--Huba and Freed (2000)

The Higher Learning Commission defines assessment of student learning in the following way:

“Assessment of student learning is a participatory, interactive process that:

- Provides data/information you need on your students’ learning
- Engages you and others in analyzing and using this data/information to confirm and improve teaching and learning
- Produces evidence that students are learning the outcomes you intended
- Guides you in making educational and institutional improvements
- Evaluates whether changes made improve/impact student learning, and documents the learning and your efforts.”

--From “Student Learning, Assessment and Accreditation: Criteria and Contexts”, presented at *Making a Difference in Student Learning: Assessment as a Core Strategy*, a workshop from the Higher Learning Commission, July 26-28, 2006.

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Purpose of Assessment

The purpose of assessment is *to improve, inform, and support* your program. The assessment of student learning is an essential component of university effectiveness, General Education, and program goals. This assessment is fundamental to achieving the Strategic Plan goals and fulfilling the mission of the University.

At Montclair State University, the programs are designed to develop students' ability to discover, create, evaluate, apply, and share knowledge. Students, in their curricular and co-curricular programs, cultivate abilities to think critically, act ethically, and become informed participants in our democracy. It is the ongoing, systematic assessment of specific student learning goals in General Education and academic programs, which informs the University on the status of accomplishing the mission and Strategic Plan.

Benefits of Assessment

Colleges and Universities are increasingly emphasizing the assessment of student learning for three primary reasons:

- **Improvement.** Assessment can help course instructors of programs and departments make informed decisions in terms of the program strengths in order to improve the quality of teaching and learning, as well as programs and services.
- **Accountability.** Assessment can validate programs, services, teaching and learning efforts and thereby demonstrate, with evidence, their effectiveness to concerned audiences.
- **Student Learning Outcomes.** The assessment of student learning is an essential component of university effectiveness, General Education, and program goals. This assessment is fundamental to achieving the Strategic Plan goals and fulfilling the university's mission.

Assessment efforts have benefits for faculty, students, departments, and university.

Instructor Benefits:

- Assessment efforts lead to ongoing change in course content that increase students' learning and satisfaction (e.g., course revisions, course additions, revisions to course sequencing or prerequisites.)
- Lead to improvement of instruction by determining which types of instruction resulted in the most successful student outcomes on assessed measures. (Examples of types instruction or coursework that may be assessed include individual exams or assignments, group projects, individual or group presentations, or cooperative learning experiences with external agencies or organizations.)

Student Benefits:

- Assessment allows students to study more efficiently and effectively (i.e., by highlighting gaps in student knowledge of content, highlighting course content that occupies a larger focus in instruction, and highlighting coursework that has proven most successful to students in successfully understanding course content.)
- Students feel their faculty care about their learning (as evidenced by student exit surveys upon course completion.)
- Increase students' ability to self-assess their knowledge and skills (as evidenced by improvements in students' responses on pre- and post-tests and surveys, progressive drafts of written work, and ability to communicate knowledge of course content through multiple formats including writing, verbal presentation and discussion, online responses, and multi-media presentations.)

Department Benefits:

- Increase discussion about teaching among faculty and staff (i.e., at faculty meetings, retreats, etc.)
- Lead to new and innovative ways of teaching
- Lead to program and course development and improvement (e.g., course revisions, course additions, revisions to course sequencing or prerequisites.)

University Benefits:

- Assessment is fundamental to achieving the Strategic Plan goals
- Assessment leads to fulfilling the University's mission

Fundamental Elements of Institutional Assessment

An accredited institution is expected to possess or demonstrate the following attributes or activities:

- documented, organized and sustained assessment process to evaluate and improve the total range of programs and services; achievement of institutional mission, goals, and plans; and compliance with accreditation standards that meets the following criteria:
 - a foundation in the institution's mission and clearly articulated institutional, unit-level, and program-level goals that encompass all programs, services, and initiatives and are appropriately integrated with one another (see Standards 1: Mission and Goals and 2: Planning, Resource Allocation, and Institutional Renewal); - provide an internet link to standards if possible, for further review.
 - systematic, sustained, and thorough use of multiple qualitative and/or quantitative measures that:
 - maximize the use of existing data and information;
 - clearly and purposefully relate to the goals they are assessing;
 - are of sufficient quality that results can be used with confidence to inform decisions;
 - support and collaboration of faculty and administration in assessing student learning and responding to assessment results;
 - clear realistic guidelines and a timetable, supported by appropriate investment of institutional resources;
 - sufficient simplicity, practicality, detail, and ownership to be sustainable;
 - periodic evaluation of the effectiveness and comprehensiveness of the institution's assessment process;
- evidence that assessment results are shared and discussed with appropriate constituents and used in institutional planning, resource allocation, and renewal (see Standard 2: Planning, Resource Allocation, and Institutional Renewal) to improve and gain efficiencies in programs, services and processes, including activities specific to the institution's mission (e.g., service, outreach, research); and
- written institutional (strategic) plan(s) that reflect(s) consideration of assessment results.
 - Note: An easy way to meet these expectations is to review all assessment goals to ensure that they are SMART goals (Specific, *Measurable*, Achievable, Realistic, and *Time-bound*.) Measurable goals can be *quantified* in some way (e.g., numbers of enrolled or participating students, dollar amounts, etc.)

Institutions and evaluators must consider the totality that is created by the fundamental elements and any other relevant institutional information or analysis. Fundamental elements and contextual statements should not be applied separately as checklists. Where an institution does not possess or demonstrate evidence of a particular Fundamental Element, the institution may demonstrate through alternative information and analysis that it meets the standard.

<http://www.msche.org/publications/CHX-2011-WEB.pdf>

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PART II

Student Learning Outcomes Assessment Process at Montclair State

Step 1: To organize for assessment, department chairs, who lead the department assessment process, have to identify Assessment Liaisons (AL) (each department has one or two ALs). Assessment Liaison's primary responsibilities include:

- Coordinate the completion of Assessment Plans with appropriate Program Learning Goals, Assessment Measures, Assessment Tools, Data collection schedule, Results and Action Plan updates.
- Coordinate the entry of all required outcomes data in the SLO Assessment Database.
- Provide assistance to faculty/staff as needed to achieve the above.
- Provide direction and assistance to Department Chairs in preparing Annual Impact Reports on the status of the assessment plans and results.

Step 2: Development of Assessment Plan with the following components (*Liaison facilitates this with faculty*)

a) Learning Goals: PLGs provide the basis for assessment and must concur with the school or college goals, and ultimately with the Montclair State Strategic Plan objectives, therefore each department/college should adequately and clearly define the PLGs.

b) Course Matrix: Course matrix allows programs to develop an inventory that aligns objectives with curriculum. The matrix should illustrate the cross-section of specific student learning goals, each course in the major curriculum contributing to the teaching of these goals, and the methods used to assess the specific student outcomes.

c) Measures: Measures are the specific methods used to gather data proving whether outcomes/objectives were accomplished. Each measure should be defined clearly and should state the time period and responsible for data gathering.

d) Tools/Rubrics: Rubrics are tools developed by instructors to assess the performances of their students. The rubric lists the task of the performance to be evaluated and describes the levels for each dimension of the performance to be evaluated.

Step 3: Data Collection & Data Analysis:

Assessment Liaisons organize and manage data collection process by requesting the following data from the key assessment faculty - full-time and adjuncts:

- The number of students, who exceed, meet or do not meet the instructor's expectations in the course(s), and
- One anonymous sample of student work from each category (exceeds, meets and below).

After the results and information gained/collected, ALs distribute it to the faculty and department chairs for **discussion, analysis and development of action plan** to achieve continuous improvement.

Action Plan (summary of outcomes from data analysis) consists of three sections and must be updated every year:

1. How will results be disseminated?
2. Use of data.
3. How did you use collected data to improve your program and what are the next steps?

Step 4: Departmental Annual Impact Reports

The Departmental Annual Impact Report was developed to assist the faculty and administration in preparation for their continuing Five-Year External Review Committee (FERC) self-studies and the Annual College Assessment Reports. Departments should indicate any changes or progress made since the completion of the last FERC visit and report.

Step 5: College/School Annual Impact Reports

The College/School Annual Impact Report should summarize and describe:

- How College/School goals and objectives are mapped to the University Strategic Plan
- How Departments/Programs goals and objectives are mapped to the College/School goals and objectives.
- And highlight what the Departments/Programs are doing with the outcomes results and describe the action plan.

For details about what is expected in various sections of the departmental and college/school annual reports, please see enclosed templates.

PART III

Developing an Assessment Plan

Step 1: To organize for assessment, department chairs, who lead the department assessment process, have to identify Assessment Liaisons (AL) (each department has one or two ALs). Assessment Liaison's primary responsibilities include:

- Coordinate the completion of Assessment Plans with appropriate Program Learning Goals, Assessment Measures, Assessment Tools, Data collection schedule, Results and Action Plan updates.
- Coordinate the entry of all required outcomes data in the SLO Assessment Database.
- Provide assistance to faculty/staff as needed to achieve the above.
- Provide direction and assistance to Department Chairs in preparing Annual Impact Reports on the status of the assessment plans and results.

The database is located at:

<https://midstates-assessment.montclair.edu/programAssessment/Security/SignIn.aspx>

The MSU Assessment Circle includes 6 main steps shown and described below.



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Step 2. Developing an Assessment Plan
a) Define program learning goals (PLGs)

“Goals state what you, your college, or your institution aim to achieve.”

-Suskie, 2004

Define program learning goals (PLGs)

PLGs provide the basis for assessment and must concur with the school or college goals, and ultimately with the Montclair State Strategic Plan objectives, therefore each department/college should adequately and clearly define the PLGs.

Examples of program learning goals:

- Students will be able to understand how their discipline is created, organized, linked to other disciplines, and practiced in the educational setting.
- Students will demonstrate critical thought and inquiry into the nature of teaching and learning.
- Students will be able to synthesize primary literature.
- Students will be able to communicate effectively.
- Students will be able to construct logical arguments.
- Students will demonstrate knowledge of how research builds incrementally.
- Students will be able to plan and teach using a range of strategies and resources to create a meaningful context for learning.
- Students will be able to critically assess their own development as a teacher and reflective practitioner.

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Step 2. Developing an Assessment Plan

b) Develop curriculum matrix

Develop Course Matrix

Course matrix allows programs to develop an inventory that aligns objectives with curriculum. Once the program establishes this alignment, the current curriculum can be evaluated for its effectiveness in achieving the program's learning goals.

The matrix should illustrate the cross-section of specific student learning goals, each course in the major curriculum contributing to the teaching of these goals, and the measures (assessment tools) used to assess the specific student outcomes. Additional information may be included in the map (such as the type of measure used) as best fits the program.

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Step 2. Developing an Assessment Plan
c) Develop assessment measures for each PLG

Identify and describe assessment measures. Assess each goal once a year.

(It is noted that the frequency of data collection for some PLGs will be impacted by the frequency at which assessed courses are offered.)

Examples of assessment measures:

Excerpt from Linguistics Assessment Plan:

Assessment Measure for **Goal 1**: Comprehensive final examination.

Assessment Measure for **Goal 2**: Final presentation.

Assessment Measure for **Goal 3**: Midterm and final examinations.

Excerpt from Biology Assessment Plan:

Assessment Measure for **Goal 1**: Evaluation of Lab Reports.

Assessment Measure for **Goal 2**: Practical laboratory exam.

Assessment Measure for **Goal 3**: Final exam.

Assessment Measure for **Goal 4**: Research Proposal (Paper) and Final Presentation.

Assessment Measure for **Goal 5**: Research Proposal (Paper) and Final Presentation.

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Step 2. Developing an Assessment Plan

d) Develop rubrics

What is a Rubric?

- Rubrics are a tool developed by instructors to assess the performances of their students.
- The rubric lists the task of the performance to be evaluated.
- It describes the levels for each dimension of the performance to be evaluated.
- The rubric assigns a point value to each gradation of quality.

Why Use a Rubric?

- Rubrics are used with assessments that are typically subjective rather than objective assignments.
- Rubrics are used for many reasons:
 - Rubrics make the instructor's expectations clear to the students.
 - Rubrics help the students evaluate their own work.
 - Rubrics show the students how to meet the instructor's expectations.
 - It can reduce the time it takes to grade work.
 - It promotes consistency and objectivity of grading work

How to Create a Rubric

- Identify the purpose of the evaluation.
- Determine what to evaluate.
- Decide how much to evaluate.
- Refine factors to evaluate.
- Group related factors.
- Define the criteria.
- Describe an outstanding performance.
- Obtain feedback.
- Develop a continuum of performance levels.
- Define poor performance.
- Complete the continuum.
- Create task.

See [Appendix E](#) for Rubric Samples

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PART IV

Data Collection/Analysis

Step 3. Collect data

Part IV: Data Collection/Analysis

The assessment liaison organizes and manages data collection process by requesting the following data from the key assessment faculty - full-time and adjuncts:

- The number of students, who exceed, meet or do not meet the instructor's expectations in the course(s), based on quantified scores/outcomes on the specified assessment tool(s) for the course(s), and
- One anonymous sample of student work from each category (exceeds, meets and below) on paper(s), exam(s) or other work that has been specified as an assessment tool for the course.

See [Appendix F](#) for Assessment Plan Examples

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Step 4. Discuss and analyze the data

Part IV: Data Collection/Analysis

The results and information gained should be distributed to the faculty and department chairs for ***discussion, analysis and development of action plan*** to achieve continuous improvement.

(Note: Some description of the times and methods of distribution of results to faculty should be indicated in the “Action Plan” section of the assessment plan, as illustrated below.)

Examples of action plans

Excerpt from Linguistics Assessment Plan:

“Sample exams, papers, and PPTs that exceed, meet, and do not meet the rubrics for these assessment measures will be shared with faculty at the beginning of each semester as well as numbers of students that have exceeded, met, and not met rubrics.

Data will be examined for writing, care in analysis and strength of argument. Any weaknesses will result in more time and resources being given to the weak areas.”

Excerpt from Biology Assessment Plan:

“Results from each evaluation will be presented at the 1st February department meeting of the year.

In May of each year a committee will develop recommendations for the following year's assessment and any necessary modification of the particular course structure.”

PART V

Action Plan/Continuing the Loop

Step 5. Implement changes/Develop an Action Plan

Part V: Action Plan/Continuing the Loop

The **results** of the assessment must be used to identify changes to **improve** the program. These changes could be to the content of the curriculum, staffing, facilities, among others.

Use the results to:

- Evaluate learning goals: Are there too many, do they need clarification, are they appropriate?
(A maximum of three program learning goals, each measured in one course, is recommended to make data collection manageable for involved faculty.)
- Evaluate curriculum: Does it address all of the learning goals? How can courses be modified to do so?
(The goal of an assessment plan is to present instructional goals within a program and student progress toward these goals. Each goal and its associated assessment tool(s) should reflect student knowledge of the most important content acquired in the assessed course. Likewise, the program learning goals when taken together should reflect a progression of knowledge, skills and abilities gained by students over the entire course of the program. Thus, it is recommended that assessment not be limited to only one portion of a program, such as introductory or capstone courses. Including even one course from the middle of the program sequence can provide valuable data on whether current prerequisites and sequencing of courses are successfully leading students to the learning outcomes desired by faculty.)
- Evaluate teaching methods: Can any improvement be made in this area toward empowering students to achieve learning goals?
(Efforts should be made to include varied types of student work when more than one assessment tool/measure is used in an assessment plan - e.g., individual written student work, group projects, verbal presentations and class discussions, work

completed online, multi-media presentations, cooperative or internship learning experiences, etc. This will allow faculty to see which types of student work were most successful in giving students the desired knowledge and application of knowledge in any assessed course.)

- Evaluate the assessment methods used: Were they appropriate?
(Did the chosen assessment tools and assessed courses yield data that accurately tracked student knowledge of the most important course content, and application of this knowledge, both within individual courses and across the program as a whole.)

- Adapted from Suskie (2004), Chapter 16

Step 6. Make Data-Driven Decisions/Continue the Loop

Part V: Action Plan/Continuing the Loop

Based on the results that you received, will any modifications be made to improve student learning? (i.e., specific course additions and/or revisions, revisions to instructional methods, etc.)

The implemented changes should be monitored to determine whether or not the changes had the desired effect. One way of achieving this is to use the same assessment plan as used in the previous cycle and compare the actual results to the intended results. Any discrepancies should be carefully studied to determine the underlying cause. In other situations, the action might be to continue monitoring the outcome to ensure quality.

Review all of the information obtained from the assessment process and determine how this will affect your next assessment plan. This provides the starting point for the next implementation and continuous improvement of the academic program.

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PART VI

Middle States Accreditation

What is Middle States? What is accreditation?

The Middle States Commission on Higher Education (MSCHE) is a voluntary, non-governmental, membership association that defines, maintains, and promotes educational excellence across institutions with diverse missions, student populations, and resources. It examines each institution as a whole, rather than specific programs within institutions.

Accreditation is a means of showing that a university's programs, policies, and priorities are aligned with its institutional mission and goals. The accreditation process is an opportunity to demonstrate a university's accountability and improvement, both internally and externally. Montclair State University is proud to be accredited by one of the 7 regional accreditation authorities - the Middle States Commission on Higher Education.

The MSCHE accredits institutions in Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, the U.S. Virgin Islands, and other geographic areas in which the commission conducts accrediting activities.

What is Middle States looking for?

The Middle States Commission on Higher Education aspires to be the preeminent resource for institutions of higher education striving to achieve excellence in fulfilling their missions. It also intends, through voluntary assessment and adherence to high standards for student learning outcomes and operational behavior, to assure higher education's publics that its accredited institutions are fulfilling their stated purposes and addressing the publics' expectations.

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Montclair State University must comply with all seven Middle States' standards in order to keep our accreditation. All the standards are interpreted in the context of the university's mission and goals. Additionally, we must demonstrate that our resources are allocated properly and our planning processes are sustainable for change, informed by data analysis, assessment, and evaluation. If you are interested in the full exposition of the standards, you can download the Middle States document entitled Characteristics of Excellence in Higher Education.

What Does Accreditation Mean for Montclair State University?

The accreditation process provides Montclair State University an opportunity to engage in critical self-analysis with the ultimate goal of continuous improvement in order to best serve students and other key stakeholders. The self-study involves a systematic, evidence-based assessment of how the institution fulfills its mission, moves forward with its strategic plan, and aligns its resources to institutional priorities. The purpose of the self-study is to ensure the institution remains student-focused in its activities, its strengths are clearly identified, and areas that require attention are addressed proactively. The self-study is a valuable tool for the ongoing advancement and accountability of the University.

The Self-Study Process: 2014-2017

The self-study is a multi-stage, 3-year process that involves discussion, critical inquiry, and report preparation that carefully documents the institution's progress over time. This process aims to engage the entire campus community and other constituencies as they provide input and offer feedback. Montclair State University already has in place an organizational structure of teams that will guide these efforts: The Executive Leadership Team (ELT), the Committee on University Effectiveness (CUE), and seven Working Groups, each to focus on one of the accreditation standards. Our time line of activities includes:

- Completion and approval of the Self-Study Design (2014-2015)
- Completion of the final Self-Study Report and all accompanying documentation (Fall 2016)
- Preliminary visit by President Tomás Morales of CSU San Bernardino (November 18, 2016)
- Hosting of the Evaluation Team Visit (April 2-5, 2017)

Where can I find the new Middle States Standards?

<https://www.montclair.edu/media/montclairedu/RevisedStandardsFINAL.pdf>

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PART VII

Glossary of Terms

Assessment - a process that asks important questions about student learning and program effectiveness: gathers meaningful information about these questions; uses the information for program and course improvement in the achievement of University program goals.

Assessment Liaison – a department representative, who manages, organizes and oversees the assessment process in the department.

Action Plan – an agreed upon strategy among the faculty to address the results of an ongoing assessment plan.

Benchmark - a detailed description of a specific level of student performance expected of students at particular ages, grades, or developmental levels. Benchmarks are often represented by samples of student work, which can be used as "checkpoints" to monitor progress toward meeting performance goals within and across grade levels.

Culture of Assessment – the attitudes and mindset of individuals within the university toward assessment and all of its components that are seeking to serve the student body to the fullest extent.

Closing the Loop – the demonstration of the use of assessment results to improve the educational or service program through drafting of and implementation of an action plan. Once the "loop" is completed, the process is repeated to assess the impact of the plan.

Institutional Effectiveness – the extent to which an institution achieves its mission and goals.

Institutional Goals – institutional- level action statements that implement, support, and are derived from the Mission and Strategic Plan.

Institutional Mission – a broad statement of institutional philosophy, role, scope, etc.

Learning Standards – standards that define the skills and abilities to be mastered by students at a certain point in their learning progression.

Portfolio - a collection of student-generated or student-focused evidence (for ex., student work samples, photographs, videotapes and observations), designed to assess student's progress,

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effort, and/or achievement. Portfolios encourage students to reflect on their learning and provide the basis for demonstrating the student's mastery of a range of skills, performance level, or improvement in these skills over time. A portfolio becomes **a portfolio assessment** when:

1. the assessment purpose is defined,
2. criteria or methods are made clear for determining what should be included in the portfolio, by whom, and when,
3. criteria for assessing either the collection or individual pieces of work are identified and used to make judgments about performance.

Student Learning Outcomes (SLO) – statements that specify what students will know, be able to do or be able to demonstrate when they have completed or participated in a course or a program. The systematic evaluation of specific student learning which informs the University on the status of accomplishing the mission, and if students are learning what is expected of them by their programs. SLO demonstrate knowledge, skills, attitudes or values.

Reliability - an indication of the consistency of scores across raters, over time, or across different tasks or items that measure the same thing. It is the degree to which the results of an assessment are dependable and consistently measure particular student knowledge and/or skills.

Rubric – a scoring tool developed by instructors to assess the performances of their students. The rubric lists the task of the performance to be evaluated and describes the levels for each dimension of the performance to be evaluated. Rubrics have sets of criteria that clearly define for both student and faculty what a range of acceptable and unacceptable performance looks like.

Validity - an extent to which an assessment measures what it was designed to measure and the extent to which inferences and actions made on the basis of test scores are appropriate and accurate.

PART VIII

Assessment Resources

- Assessing Outcomes and Improving Achievement: Tips and Tools for Using Rubrics. Publication info: Washington, DC : Association of American Colleges and Universities, 2010. Retrieved from <http://www.aacu.org/value/rubrics/reprint.cfm>
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PART IX

Appendices

Appendix A

MSU Assessment Template

| Program Learning Goal | Course | Assessment Measure | Develop Measure | Assessment Schedule | Action Plan: 1.Disseminate Results | Action Plan: 2.Use of Data |
|-----------------------|--------|--------------------|-----------------|---------------------|---------------------------------------|-------------------------------|
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Appendix B
Annual Academic Departmental Impact Report Template

Academic Year 2016-2017

The Annual Academic Department Report has been developed to assist the faculty and administration in preparation for their continuing Five-Year External Review Committee (FERC) self-studies and the Annual College Assessment Reports.

Departments should indicate any changes or progress made since the completion of the last FERC visit and report. A suggested outline for the content of the document is given below.

Departments must submit their reports to the Associate/Assistant Deans **no later than June 10, 2017**.

The Associate/Assistant Deans will then submit the approved Department reports electronically to Dr. Koroleva at korolevaai@mail.montclair.edu **no later than July 1, 2017**.

The Annual Academic Departmental Report will be a valuable asset to program and curriculum development and improvement in each of the departments.

List the major recommendations made by the FERC team.

A. DEPARTMENTAL GOALS, OBJECTIVES AND STRATEGIC PLANNING

1. State your department mission.
2. Describe the alignment of your mission with that of your college and the University Strategic Plan.
3. Assess how your department meets its goals and objectives.

Critical Point:

Indicate any changes or revisions made in the past AY, if applicable, and how they relate to assessment of your major.

If there are no changes in the above, state it and include in this report information you submitted last year.

B. PROGRAM

Critical Point:

1. **Curriculum:** Describe any new programs or curricular alterations done within the past AY, if applicable, and how they relate to assessment of your major.

2. Advising – The department’s student advisement program for both undergraduate and graduate students should be described, indicating any new/revised components.

C. OUTCOMES: PROGRAMS AND STUDENT LEARNING

1. Review your existing 2015-2016 Program Assessment Plans, including learning goals, action plan, and data collection.
2. Indicate any change(s) in the existing assessment plans and indicate any new plans for your new programs.

Critical Points:

3. **Indicate how your department uses any assessment results of the programs and/or Department to revise existing programs and/or develop new programs over the past three years.**
4. **Highlight what the Department/Programs are doing with assessment results or describe the action plan. Provide data analysis and examples of how outcomes results have affected your program(s).**

D. FACULTY (FOR NEW HIRES ONLY)

Provide a summary of the qualifications, research activity and professional development activities of new hire(s). Describe the role and responsibilities of this individual in the department/program, and if any released time is associated with these activities and rationale for why they were hired.

E. INSTRUCTIONAL/CLINICAL SPECIALISTS (FOR NEW HIRES ONLY)

Provide a summary of the qualifications, research activity and professional development activities of new hire(s). Describe the role and responsibilities of this individual in the department/program, and if any released time is associated with these activities and rationale for their role in your major/department.

F. FACILITIES, LIBRARY, TECHNOLOGY RESOURCES and SUPPORT SERVICES

Update any new developments in these areas.

G. DISCIPLINE ACCREDITATION, if applicable

Provide an update on:

- The status of existing accreditation(s) **or**
- Results of efforts to obtain accreditation by professional associations, if relevant.

H. ENROLLMENT

Critical Point:

Comment on the department’s history of retention of students. Please note any trends that have been found and strategies to build or maintain student retention in your program(s) over the past three years.

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Appendix C

College/School Annual Impact Report Template

PART I. College/School Goals, Objectives and Strategic Planning

Describe how your College/School goals and objectives are mapped to the University Strategic Plan.

PART II. Department/Program Goals, Objectives and College/School Goals

Describe and highlight how Departments/Programs goals and objectives are mapped to the College/School goals and objectives.

PART III. Outcomes: Results and Department Goals and Objectives

Highlight what the Departments/Programs are doing with the outcomes results or describe the action plan.



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Appendix D
Bloom's Taxonomy of Educational Objectives
MAJOR CATEGORIES IN THE TAXONOMY OF
EDUCATIONAL OBJECTIVES
(BLOOM 1956)

Available at:

<http://faculty.washington.edu/krumme/guides/bloom.html>

Categories in the Cognitive Domain

(With Outcome Illustrating Verbs)

Knowledge of terminology: specific facts; ways and means of dealing with specifics (conventions, trends and sequences, classifications and categories, criteria, methodology); universals and abstractions in a field (principles and generalizations, theories and structures). Knowledge is (here) defined as the remembering (recalling) of appropriate, previously learned information.

VERBS: defines; describes; enumerates; identifies; labels; lists; matches; names; reads; records; reproduces; selects; states; views

Comprehension: Grasping (understanding) the meaning of informational materials.

VERBS: classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; makes sense out of; paraphrases; restates (in own words); summarizes; traces

Application: The use of previously learned information in new and concrete situations to solve problems that have single or best answers.

VERBS: acts; administers; assesses; charts; collects; computes; constructs; contributes; controls; determines; develops; discovers; establishes; extends; implements; includes; informs; instructs; operationalizes; participates; predicts; prepares; preserves; produces; projects; provides; relates; reports; solves; teaches; transfers; uses; utilizes

Analysis: The breaking down of informational materials into their component parts, examining (and trying to understand the organizational structure of) such information to develop divergent conclusions by identifying motives or causes, making inferences, and/or finding evidence to support generalizations.

VERBS: breaks down; correlates; diagrams; differentiates; discriminates; distinguishes; focuses; illustrates; infers; limits; outlines; points out; prioritizes; recognizes; separates; subdivides

Synthesis: Creatively or divergently applying prior knowledge and skills to produce a new or original whole.

VERBS: adapts; anticipates; categorizes; collaborates; combines; communicates; compares; compiles; composes; contrasts; creates; designs; devises; expresses; facilitates; formulates; generates; incorporates; individualizes; initiates; integrates; intervenes; models; modifies; negotiates; plans; progresses; rearranges; reconstructs; reinforces; reorganizes; revises; structures; substitutes; validates

Evaluation: Judging the value of the material based on personal values/opinions, resulting in an end product, with a given purpose, without real right or wrong answers.

VERBS: appraises; compares & contrasts; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; supports

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Critical Thinking Rubric Example

| | Capstone | Milestones | | Benchmark |
|--|---|---|--|--|
| | 4 | 3 | 2 | 1 |
| Explanation of issues | Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding. | Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions. | Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown. | Issue/problem to be considered critically is stated without clarification or description. |
| Evidence Selecting and using information to investigate a point of view or conclusion | Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly. | Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning. | Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning. | Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question. |

| | | | | |
|--|---|---|---|---|
| Influence of context and assumptions | Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position. | Identifies own and others' assumptions and several relevant contexts when presenting a position. | Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa). | Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position. |
| Student's position (perspective, thesis/hypothesis) | Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis). | Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis). | Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue. | Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious. |
| Conclusions and related outcomes (implications and consequences) | Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order. | Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly. | Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly | Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified. |

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Oral Communication Rubric Example

| | Capstone | Milestones | | Benchmark |
|--------------|---|--|--|---|
| | 4 | 3 | 2 | 1 |
| Organization | Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive. | Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation. | Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation. | Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation. |
| Language | Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience. | Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience. | Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience. | Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience. |

| | | | | |
|---------------------|---|---|---|--|
| Delivery | Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident. | Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable. | Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative | Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable. |
| Supporting Material | A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic. | Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic. | Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic. | Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic. |
| Central Message | Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.) | Central message is clear and consistent with the supporting material. | Central message is basically understandable but is not often repeated and is not memorable. | Central message can be deduced, but is not explicitly stated in the presentation. |

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Written Communication Rubric Example

| | Capstone | Milestones | | Benchmark |
|---|--|--|--|---|
| | 4 | 3 | 2 | 1 |
| <p>Context of and Purpose for Writing</p> <p>Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).</p> | Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work. | Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context). | Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions). | Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience). |
| Content Development | Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work. | Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work. | Uses appropriate and relevant content to develop and explore ideas through most of the work. | Uses appropriate and relevant content to develop simple ideas in some parts of the work. |

| | | | | |
|---|--|--|---|---|
| <p>Genre and Disciplinary Conventions</p> <p>Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).</p> | <p>Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organization, content, presentation, formatting, and stylistic choices</p> | <p>Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices</p> | <p>Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation</p> | <p>Attempts to use a consistent system for basic organization and presentation.</p> |
| <p>Sources and Evidence</p> | <p>Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing</p> | <p>Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.</p> | <p>Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.</p> | <p>Demonstrates an attempt to use sources to support ideas in the writing.</p> |
| <p>Control of Syntax and Mechanics</p> | <p>Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.</p> | <p>Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.</p> | <p>Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.</p> | <p>Uses language that sometimes impedes meaning because of errors in usage.</p> |

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Appendix F Assessment Plan Examples

Assessment

| College School | Department | Program Degree | Student Level | Plan Status | Assessment Calendar |
|----------------|------------|----------------|---------------|-------------|---------------------|
| CSAM | BIOL | BIEEMS | G | Approved | Complete 2013 |



Action Plan

| Academic Year | Program Degree | Completed By | Email Address |
|---------------|----------------|--------------|----------------------------|
| 2012-2013 | BIEEMS | Lisa Hazard | hazardl@mail.montclair.edu |

Use of Data

In May of each year a committee consisting of the Departmental Graduate Program Coordinators and relevant faculty will develop recommendations for the following year's assessment and propose any necessary modification of the particular course structure.

Disseminate Results

Assessment results will be presented to faculty during a faculty meeting in the semester following the committee meeting.

Course Matrix

Actions ▾

Filters ▾

Search for...



| Program Degree | Course | Goal 1 | Goal 2 | Goal 3 | Goal 4 | Goal 5 | Goal 6 | Goal 7 | Goal 8 | Goal 9 | |
|----------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| BIEEMS | BIOL570 | X | A | X | | | | | | | |
| BIEEMS | BIOL580 | X | X | X | | | | | | | |
| BIEEMS | BIOL592 | A | X | X | | | | | | | |
| BIEEMS | BIOL597 | X | X | A | | | | | | | |

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Program Learning Goals

PLG 1 | BIEEMS | BIOL592

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|---|--------------------------------|--|---------------------|----------------------------------|
| Students will be able to synthesize primary literature. | Summary Paper and Presentation | Instructor | Fall2012 | Biol592PLG1.xlsx |

PLG 2 | BIEEMS | BIOL570

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|---|--------------------|--|---------------------|---------------------------------|
| Students will have a firm understanding of biology theory | Final Exam | Kirsten Monsen | Fall2012 | BIOL570PLG2.doc |

PLG 3 | BIEEMS | BIOL597

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|---|--------------------------|--|---------------------|----------------------------------|
| Students will be able to summarize biological concepts both verbally and in writing | Final Presentation/paper | Biol 597-Dept. | Spring2013 | Biol597PLG3.xlsx |

Assessment Summary

Actions ▾

| AY | Program | Goal | Course | Below | Meets | Exceeds | |
|-----------|---------|------|---------|--------------|--------------|--------------|------------------------------------|
| 2012-2013 | BIEEMS | PLG3 | BIOL597 | 15 15.00 % | 1 0.00 % | 85 85.00 % | Assessment Summary |
| 2012-2013 | BIEEMS | PLG1 | BIOL592 | 0 0.00 % | 1 5.00 % | 19 95.00 % | BIOL592PLG1.pdf |
| 2012-2013 | BIEEMS | PLG2 | BIOL570 | 3 12.50 % | 12 50.00 % | 9 37.50 % | BIOL570PLG2.pdf |

Assessment

| College School | Department | Program Degree | Student Level | Plan Status | Assessment Calendar |
|----------------|------------|----------------|---------------|-------------|---------------------|
| CSAM | BIOL | MBMEBS | U | Approved | Complete 2012 |



Action Plan

| Academic Year | Program Degree | Completed By | Email Address |
|---------------|----------------|--------------|----------------------------|
| 2012-2013 | MBMEBS | Lisa Hazard | hazardl@mail.montclair.edu |

Use of Data

In May of each year a committee will develop recommendations for the following year's assessment and any necessary modification of the particular course structure.

Disseminate Results

Results from each evaluation will be presented at the 1st February dept. meeting of the year.

Course Matrix

Actions ▾

Filters ▾

Search for...



| Program Degree | Course | Goal 1 | Goal 2 | Goal 3 | Goal 4 | Goal 5 | Goal 6 | Goal 7 | Goal 8 | Goal 9 | |
|----------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| MBMEBS | BIOL380 | A | A | A | X | X | | | | | |
| MBMEBS | BIOL112 | X | X | X | X | X | | | | | |
| MBMEBS | BIOL113 | X | X | X | X | X | | | | | |
| MBMEBS | BIOL213 | X | X | X | X | | | | | | |
| MBMEBS | BIOL230 | X | X | X | X | X | | | | | |
| MBMEBS | BIOL490 | | | | A | A | | | | | |

◀ 1 ▶

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Program Learning Goals

PLG 1 | MBMEBS | BIOL380

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|---|---------------------------|--|---------------------|-----------------|
| Students will be able to design experiments, interpret data and develop conclusions | Evaluation of Lab Reports | Kirsten Monsen | Spring2012 | BIOL380PLG1.xls |

PLG 2 | MBMEBS | BIOL380

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|--|---------------------------|--|---------------------|-----------------|
| Students will be able to perform appropriate experimental techniques | Practical laboratory exam | Kirsten Monsen | Spring2012 | BIOL380PLG2.doc |

PLG 3 | MBMEBS | BIOL380

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|---|---|--|---------------------|-----------------|
| Students will be able to demonstrate an understanding of core biological concepts | Assessment will take place during the last complete exam for the course | Kirsten Monsen | Spring2012 | BIOL380PLG3.doc |

PLG 4 | MBMEBS | BIOL490

| Program Learning Goal | Assessment Measure | Who will develop the Assessment Measure? | Assessment Schedule | Assessment Tool |
|--|--|--|---------------------|-----------------|
| Students will be able to present scientific information both orally and in writing | Research Proposal (Paper) and Final Presentation | Kirsten Monsen | Spring2013 | BIOL490PLG4.xls |

PLG 5 | MBMEBS | BIOL490

| | | | | |
|--|---|---|---|---|
| Program Learning Goal Students will be able to integrate multiple scientific disciplines when addressing a biological problem. | Assessment Measure Research Proposal (Paper) and Final Presentation | Who will develop the Assessment Measure? Kirsten Monsen | Assessment Schedule Spring 2013 | Assessment Tool BIOL490PLG5.xls |
|--|---|---|---|---|

Assessment Summary

Actions ▾

| AY | Program | Goal | Course | Below | | Meets | | Exceeds | | |
|-----------|---------|------|---------|-------|---------|-------|---------|---------|---------|---------------------------------|
| 2011-2012 | MBMEBS | PLG1 | BIOL380 | 5 | 5.00 % | 27 | 27.00 % | 68 | 68.00 % | BIOL380PLG1.doc |
| 2011-2012 | MBMEBS | PLG2 | BIOL380 | 33 | 33.00 % | 67 | 67.00 % | 0 | 0.00 % | BIOL380PLG2.doc |
| 2011-2012 | MBMEBS | PLG3 | BIOL380 | 42 | 42.00 % | 58 | 58.00 % | 0 | 0.00 % | BIOL380PLG3.doc |
| 2012-2013 | MBMEBS | PLG4 | BIOL490 | | 0.00 % | | 0.00 % | | 0.00 % | |
| 2012-2013 | MBMEBS | PLG5 | BIOL490 | | 0.00 % | | 0.00 % | | 0.00 % | |

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PART X

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