

Wartburg College 2015-2016

REVISION

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**STUDENT LEARNING ASSESSMENT
RESOURCE**

Guide

**For Curricular and Co-Curricular
Departments & Programs**

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Preface: Overview of Learning Outcomes Assessment at Wartburg College

Assessment at Wartburg

Wartburg College is committed to assessing student learning and has long claimed to “fully recognize that the process of assessing student learning is beneficial to the faculty, administration, and staff in helping us to sharpen our shared understanding of the educational mission and to focus our attention on realistically appraising how well we are doing.” Indeed, the purpose of assessment at Wartburg is to gather feedback about student learning and use this information to:

- Monitor the effectiveness of our academic and co-curricular programs,
- Sustain the quality of our teaching and learning practices, and
- Address areas where improvement is warranted.

The use of feedback to assess what we do is a process inherent to any profession, especially teaching and the provision of student services; it is central to the pursuit of excellence in our work. At its core, assessment involves a cycle of fairly simple and straightforward activities:



--The process starts with stating the learning outcomes we expect students to achieve.

--Next comes verifying where in the students’ educational experiences they learn what is necessary to achieve each outcome, followed by designing and implementing methods for assessing the degree to which students are, in fact, achieving the intended outcomes.

--With this feedback in hand, we analyze and interpret these findings with respect to what they tell us about how well we are doing in meeting the expectations we established for our program.

--Finally, we put this feedback into action by doing what is necessary to sustain quality and improve where warranted.

As the graphic implies, assessment is an ongoing activity designed to support continuous improvement. Years ago, Thomas Angelo summed up the purpose of assessment in this statement: “Assessment is an ongoing process aimed at understanding and improving student learning. It involves making our expectations explicit and public, setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards; and using the resulting information to

document, explain, and improve performance” (Angelo, T., Reassessing (and Defining) Assessment. *The AAHE Bulletin*, 48(2).

This handbook is intended for use as a resource to faculty, administrators, and staff in their efforts to assess student learning outcomes in academic and co-curricular programs and services. It provides step-by-step guidance that explains the basic concepts and processes, offers options and examples of methods used to assess student learning, and suggests ways in which assessment findings can be used to sustain and strengthen the quality of our educational programs.

College Mission

Wartburg College is dedicated to challenging and nurturing students for lives of leadership and service as a spirited expression of their faith and learning.

Wartburg College helps students discover and claim their callings—connecting their learning with faith and values, their understanding of themselves and their gifts, their perspective on life and the future, and the opportunities for participating in church, community, and the larger society in purposeful and meaningful ways.

Assessment Policy Statement

Wartburg College is committed to developing and strengthening an institutional culture that sees value in using assessment data to foster continuous improvement of learning at all organizational levels, as well as to be accountable to external stakeholders. As a means of continuous improvement, curricular and co-curricular department assessment is a cyclical process for determining the extent to which identified outcomes are met and findings are used to improve programs and services. Assessment of curricular and co-curricular departments contributes to the measures used by Wartburg to gauge institutional effectiveness. Assessment reports are submitted by curricular and co-curricular departments and reviewed by the institutional Assessment Committee on an annual basis.

Student Statement Regarding the Importance of Assessment

At the heart of Wartburg College’s liberal arts education, assessment of student learning outcomes provides an understanding of skills development across programs and departments allowing comprehensive educational growth rather than subject-based learning alone. Assessing both academic and co-curricular departments and programs is valuable to the student body. Assessment shows where improvements are needed in curriculum instruction and program structure. When assessment guidelines are outlined, students are better able to realize the skills they are developing and recognize the credibility of the educational outcomes. Assessment keeps members of the campus community accountable for student learning outcomes to ensure the quality of education, therefore the quality of Wartburg College.

Why Assess Student Learning?

Student learning is the most important product of our professional activity, and understanding our strengths and weaknesses is a key part of our professional development. The assessment outlined in this handbook is characterized by faculty and staff control of the measurement of student learning, and appropriately places the responsibility for curricular and co-curricular program revision with departments and programs. Assessment of student learning outcomes is not to be equated with the process of program review. Program review is a much broader process that involves a comprehensive examination of the purpose and function of academic and co-curricular programs. While program review will include consideration of how a program has used findings from ongoing student learning assessment, its broader scope requires consideration of several other important factors affecting the quality of a program. Keep in mind that **assessment is a systematic and ongoing set of activities.**

Wartburg's Assessment Plan and Timeline

Faculty, administrators, and staff should be involved in each step of the assessment process. Department or program members decide on student learning outcomes (SLOs) and ways to measure whether these goals or outcomes are being achieved. Assessment of learning is then integrated into the regular activities of the department and program, with data being used to develop and improve courses and programs.

Not all student learning outcomes have to be assessed at once nor do they all have to be assessed each term. The overarching plan is to have approximately one third of a department or program's SLOs assessed in the first year. Then, another one third is assessed the second year with the remaining outcomes assessed the third year. This way each outcome will have been assessed at least once in every three years, resulting in a 3-year "major" report with corresponding smaller annual reports. Of course, some outcomes might be assessed more often, but the frequency is up to the faculty within the program or the staff within the department.

Date Due	Content of Report	Persons Responsible
June 15	SLOs, WCLOs, Direct Assessments, Summary analysis, Intended changes in response to data.	Department Chairs, Program leaders, Members of the college community
October 1	Updates to department assessment plans in response to data analysis	Department Chairs, Program leaders, Members of the college community

Annual Assessment Reporting

Preparing the annual assessment report in curricular and co-curricular programs involves the following steps:

1. In departments with multiple programs, decide how many assessment plans will be needed. Assessment of concentrations is conducted within the program in which the concentration is contained. Programs with different learning outcomes should be assessed separately.

2. State outcomes that describe the skills, knowledge, and/or behaviors students will possess after completing a program. These outcomes should be consistent with Wartburg's Common Learning Outcomes (Appendix A page 13), and departments should develop a map that documents this alignment. (Appendix E pages 20-25) contains the Business department student learning outcomes and curriculum maps).

Co-Curricular programs: Identify outcomes clearly derived from the college's mission, core values, strategic plan, or departmental mission statement. Identify one or more objectives that support the identified outcome(s). The objective states how you plan to achieve the outcome(s), and will be the focus of the department's assessment activities for the coming year.

3. For each outcome, identify assessments that will provide direct, objective evidence of student learning (Appendix B page 15 provides a table of direct and indirect measures utilized by curricular as well as co-curricular programs).

4. Establish standards of performance for each measure; each objective should contain a criterion or threshold of success; the level at which it may be concluded that the objective has been met.

5. Conduct assessment of each measure and record results. Identify the results of the application of the assessment instrument (ex. Pre- and Post-test results) describe what has been learned from each assessment about performance relating to the corresponding objective.

6. Review and analyze results (as well as the assessment plan itself) on a regular basis.

7. Take action to improve and document action and intended results in an Improvement Plan that explicitly identifies assessment evidence prompting the changes based on the previous timeline, target dates, and activities: **who** will do **what**, and **when**, the **why** is the evidence.

8. Report assessment activity by June 15.

The report should explain outcomes, measures, standards, and results, describe actions taken to emphasize strengths and address weaknesses, and contain a plan to assess the impact of actions.

Some things to keep in mind while developing and implementing an assessment plan:

- Make a plan that is achievable with the resources at hand. A simple plan that can be implemented is more useful than a complicated study that is never completed.
- Avoid assessment plans that retroactively document perceived strengths. An objective study is an important part of a worthwhile assessment.
- Do not re-invent the wheel—incorporate data, tools, and ideas that are already in use if they are appropriate. You may want to use existing resources from similar programs at other institutions. Many of these are available online.
- Work with the Assessment Committee during planning, implementation, and reporting. (See Appendix H for names, departments, and email addresses of committee members).
 - Assessment Reporting Cycle:
 - Department Assessment Reports – June 15
 - Revised Department Assessment Plans – October 1

I. Developing Learning Outcomes

For the purposes of assessment of student learning, the focus is on specific statements of how students will have changed as a result of their participation in a course or program. This handbook will refer to these skills, knowledge and behaviors as *outcomes*.

At the outset, each academic department or program considers the skills, knowledge, and behaviors that educators believe students completing a program will possess.

- What do we want our students to know?
- What do we want our students to understand?
- What do we want our students to be able to do with this knowledge and understanding?
- What values and attitudes do we want our students to develop?

Student learning outcomes should be an outgrowth of the learning goals of individual courses and experiences, and each outcome should be linked to the college’s educational objectives. This assures that, while every department is different, the college is integrated in its mission. Well-designed program assessment will involve diverse outcomes that map onto a number of different objectives, but every academic program assessment plan should contain outcomes that address objectives one and two (Appendix A). When outcomes are reported to the assessment committee, they should be accompanied by a curricular map—an illustration of how activities, coursework, or other experiences

in the curriculum contribute to the learning described in the outcome, including points in the course of study where skills are introduced, practiced, and mastered.

Outcomes can refer to knowledge, understanding, application, analysis, evaluation, synthesis, or a combination of these categories of cognitive processes. The best program outcomes will call upon a variety of cognitive processes and will be stated using verbs (See Appendix F [page 23](#)). Outcomes should be clear to non-specialists whenever possible, with discipline-specific language confined to measurement instruments and rubrics. In addition to being clear and diverse, outcomes should be realistic, attainable, and assessable. This means that although choosing measures and setting standards is a separate process from choosing outcomes, the two are linked; faculty, administrators, and staff should have an idea of what constitutes optimal performance when they are choosing outcomes. Furthermore, the linkage needs to be explicit as rubrics and other measurement tools associated with measures are developed. The following learning outcomes come from the Biology Department at Wartburg (BI SLO) and are linked to the Wartburg Common Learning Outcomes (WCLO):

The student will:

- 1.) Demonstrate knowledge of biological concepts from molecular to ecological levels.
(WCLO #1) Second level of Bloom's taxonomy UNDERSTAND
- 2.) Clearly communicate scientific information in written and oral presentations.
(WCLO # 5) Second level of taxonomy UNDERSTAND
- 3.) Identify, justify, and utilize appropriate scientific tools and methods in the completion of biological research. (WCLO #2) Third level of taxonomy APPLY
- 4.) Recognize and articulate examples of, and devise possible solutions to, problems associated with the social and ethical aspects of the biological sciences.
(WCLO #4) Third level of taxonomy APPLY
- 5.) Integrate multiple levels of complexity in their explanation of biological processes.
(WCLO #1) Fourth level of taxonomy ANALYZE
- 6.) Critically evaluate scientific literature and data, draw conclusions.
(WCLO # 2) Fifth level of taxonomy EVALUATE

None of these statements is complete in itself as each relies on precise definition of the outcomes; to wit, the definition of *Clear communication of scientific information in a written presentation* resides in a depiction of optimal student performance on/in a rubric-based description of performance standards. For a complete list of the Biology department's Student Learning Outcomes, See Appendix I. In an example from another discipline, a rubric identifying optimal student performance in Writing Across the Curriculum is presented in Appendix F.

II. Designing Outcome Measures

With learning outcomes in place, assessment measures can be chosen that will give those involved in assessment an objective understanding of whether these outcomes are being achieved. It is generally best to measure progress toward any outcome using a variety of measures, and to use direct measures whenever possible.

Direct measures emphasize actual student performance and provide evidence of learning and achievement that would stand up to skeptical scrutiny. Examples of direct evidence are performance on standardized tests, assessed differences on pre-and post-course performance tasks, and student achievement in capstone projects. Some direct measures, like standardized test scores, may often be used with little or no additional comment, but other direct measures require planning. A capstone project, for example, may need to be scored for learning assessment using a rubric that might be different from those used for course grading. In this case, development of the assessment rubric would be part of the departmental assessment plan. Administering some measures at multiple points (pre-and post-tests) can be an excellent way to demonstrate progress (See Appendix B).

Indirect measures, on the other hand, may imply that learning has taken place (e.g., student perceptions of learning) but do not specifically demonstrate that learning or skill. Surveys are frequently used as indirect measures of student learning or student understanding of career options or student perceptions of preparation for the workplace, etc. Direct measures are preferred and can be combined with and complimented by indirect measures.

Objective measures should be employed wherever possible; they should measure learning rather than impressions of learning. For example, it would be better to measure student performance on pre-and post-examinations than to ask students whether they felt they had learned the material. One strong way to promote objectivity is to assess learning using rubrics that have been aligned to program outcomes and to standardize their application. Some subjective measures are appropriate, especially when measuring attitudinal outcomes (for example, related to WCLO # 4, Ethics and Engagement), but direct, objective measures should predominate.

Embedded measures generate information about what and how students are learning. Course-embedded assessments take advantage of existing curricula and are based on questions placed in course assignments, incorporated into research reports, end of term papers, and final exams. Embedded assessments draw from authentic educational experiences and familiarity with the area under study because they comprise the learning, as they are integrated into the curriculum. Assessment plans should take into account student motivation, embed assessment measures in curriculum wherever possible, and explain the reasons for the assessment measures where appropriate.

Sampling is most useful when there are many students in a given course and a diversity of instructors makes standardized assessment difficult. In these cases, assessment artifacts will be collected from all students in all sections, but only a subset of the students is assessed for learning

outcomes. If your program is interested in a sampled assessment design, the assessment committee can provide additional resources.

III. Designing Rubrics

Rubrics describe criteria that signify different levels of student learning. Rubrics can be general, such as rubrics that state the broad areas of learning that will be met in different ways by different courses, or specific, like a grading rubric for a particular assignment. The rubric depends on the measure being applied: a complex measure embedded in a paper or lab report will require a rubric that includes diverse criteria and multiple performance levels, while identifying the correct answer on a multiple choice exam question requires something simple.

IV. From Data to Action

Benchmarks and Standards

Standards and benchmarks are the specific targets against which the success of achieving an outcome can be gauged. Setting performance targets, or criteria for success, is an important part of assessment planning, and should be undertaken after measures are selected. Setting targets involves knowing where your students are, knowing what your students are attempting to achieve, and developing the challenging assignments, practices, and experiences needed to get there.

If historical data is available, it can be useful for establishing a baseline, or starting point, for your target. If historical data is not available, you might want to consider using information from outside data sources to benchmark, or compare your performance data with those of other comparable colleges/departments/programs. National standardized tests and accrediting agencies may provide good sources of data. After reviewing one or more data sources, set targets that seem reasonable and achievable in light of the benchmarking information you've gathered. Setting targets in this way is called "Benchmarking" and allows for big picture comparisons of student achievement over time.

Data Collection and Analysis

After measures have been implemented, converting collected data to useful information is critical to understanding whether desired outcomes are being met. When assessment plans involve simple standards or benchmarks, moving from data collection to outcome evaluation is relatively straightforward as you answer the question, "did students learn?" In other cases, the data collection and assessment are more complex. Although understanding student learning often involves the entire population of your program, it can be informative to compare the outcomes of students across sections, between sections, or other subpopulations. When comparing populations of students, basic statistical techniques might be appropriate, and calculations of error margins based on sample size is helpful for many of the types of evaluations used to assess student learning. Members of the Institutional Research team can assist faculty, administrators, and staff who would like to know more about using statistical methods to interpret assessment data.

Review, Action, and Reporting

One of the most important benefits of assessment of student learning is the discussion that occurs within departments as they review the measurement results. The assessment process can stimulate productive departmental dialogue concerning program development, as department faculty, administrators, and staffs compare the results of assessment to their desired standards. If the comparison of the measure to the standard is favorable, the department may “raise the bar” by increasing the benchmark for the future. Alternatively, they may decide not to change the standard and instead attend to other measures with less favorable results. Whichever course is taken, explanation for the decision should be presented in the assessment report. If the comparison of the measure to the standard is unfavorable, and the measure is providing useful feedback about an outcome that is desired but not being achieved, program faculty should prioritize curricular or other change that addresses the shortcoming. Similarly, it should be a priority for the academic and co-curricular program leadership of the college to use assessment data to inform decisions regarding resource allocation, especially in cases where additional resources might be required for evidence-based improvement of student learning.

It is the responsibility of the department chair or program director to report on assessment to the Assessment Committee on a recurring and systematic basis. Assessment reports should involve the collective input of the entire department and include a complete description of the previous three years of activity. The report should take the form of a descriptive narrative that includes outcomes, the curricula that addresses them, measures and the methods used to develop and employ them, the rubrics used for assessment, and discussion of the improvement plan.

Reports are reviewed by the Assessment Committee and comments are returned to the department or program committee for discussion in a timely manner, with a target of two weeks. The rubric used to analyze department assessment reports is available under the Assessment Resources tab under the Resources tab of my.wartburg. The rubric is intended to guide members of the campus community in their assessment planning, implementation and reporting, and identifies areas the Assessment Committee will be evaluating. Members of the campus community engaging in assessment are encouraged to use the rubric as a guide for assessment activity, and to use it to anticipate the response of the committee to their work. A department interested in revising its assessment plan might begin by applying the rubric to their existing material, to see which areas need to be improved.

Finally, departments may be asked to respond to the committee’s feedback with modified plans or reports. In addition, the most current version of all departmental reports will be included in the Higher Learning Commission accreditation report every ten years. Curricular and Co-Curricular Department files are maintained by the Chair of the Assessment Committee, and are shared with the Dean and Vice President for Academic Affairs.

Revising your Assessment Report

See *Areas for follow-up for 2014-2015, 2015-2016... Assessment Report* (page 3 of Assessment Plan and Report Rubric).

Student Learning Outcomes: Identify specific observable, measurable cognitive activity targeted in each outcome along the (Taxonomy page 26) this will ensure clarity in your statement of outcomes. Arrange the stated outcomes in ascending order, this will assist in identifying diverse cognitive skill introduction, practice, and mastery.

Curricular Alignment: Fill in your curriculum map, including identification of direct assessment of student learning at each level, and attach it to your revised *Assessment Report* document.

Measures: Describe direct and embedded measures employed at each level of outcome assessment, and develop the associated rubrics. Attach the appropriate rubrics to your revised *Assessment Report* document.

Analysis and Presentation of Results: Explain your procedures: who administers the measures, under what conditions, to whom; the target values (rubric language) and benchmarks; what you think of the results and what you will do with this new information.

Action/Improvement Plan: This part of the *Assessment Report* document provides a step by step description of what is to come and corresponds to your analysis of results. Provide a timeline of target dates for application of assessment result information based on current circumstances: What have you done, what will you do when, what can be changed/improved now (and the form that improvement will take), what needs more time (and how much time) to come to fruition.

Transition to a three-year cycle

In revising our outcomes assessment protocols, most programs will be engaged with the assessment committee on a yearly basis, as they develop outcomes and measures, collect data, and submit yearly reports by June 15 and Improvement Plans by October 1. It is the goal of the Assessment Committee to interact with programs annually once they have a good system in place. Programs that have developed complete assessment plans, gathered data, submitted a report that carries out the plan and have taken data-supported actions to revise their assessment and/or their curriculum will transition to a three-year cycle in which outcomes data will continue to be collected each term, with the full report submitted to the committee every third year.

Glossary of Terms:

Assessment: The process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences.

Benchmarks: Standard, or a set of standards, used as a point of reference for evaluating performance or level of quality.

Curriculum: In education, a curriculum is broadly defined as the totality of student experiences that occur in the educational process.

Co-curricular: Refers to activities, programs, and learning experiences that complement, in some way, what students are learning in school—i.e., experiences that are connected to or mirror the academic curriculum. Co-curricular activities are typically, but not always, defined by their separation from academic courses.

Curriculum Mapping: A process for collecting and recording curriculum-related data that identifies core skills and content taught, processes employed, and assessments used.

Deadline: When work will be completed, for purposes of reporting. Specific steps to completion carried out within department or program constitute a timeline.

Direct Measures: Tests of student performance collected pre and post treatment. May be formative or summative.

Embedded Assessments: Assessments that draw from authentic learning experiences ongoing in course curricula. Student-driven inquiry generates responses to situations, conditions, and treatments experienced within the classroom, lab, or field experience. May be formative or summative.

Feedback: Useful information about reactions to a product, a person's performance of a task, etc., used as a basis for improvement, in this case, department assessment and improvement reports.

HOTS: Higher Order Thinking Skills, those cognitive activities that promote learning and transfer of learning. According to Bloom's Taxonomy, the cognitive activities in increasing complexity are: Remember, Understand, Apply, Analyze, Evaluate, Create.

Indirect Assessment: Capture student perceptions after the fact, do not demonstrate learning or skill.

Rubric: A grading tool that defines in writing what is expected of the student in performing a task in order to get a particular score along with the level of the score relative to the degree of difficulty of the assignment.

SLOs: Student Learning Outcomes, sometimes referred to as goals or objectives.

Timeline: Steps to complete development of materials, rubrics, courses. Includes target dates for approval of course changes, new courses, texts, and budgets.

Sources

aacu.org Association of American Colleges and Universities
aalhe.org Association for the Assessment of Learning in Higher Education
University of Evansville Assessment Resource Manual
University of Wisconsin-Madison Assessment Manual

Appendix A: Wartburg College Learning Outcomes (WCLO)

The following learning outcomes, adopted in March, 2014, reflect the mission and character of Wartburg College. All our teaching and learning activities are aimed at fulfilling the College's mission. Recognizing that a well-rounded education has important curricular and co-curricular components, the college envisions integrative learning that emphasizes Connections within and between general education and the major course of study that brings together diverse experiences from campus, community, and the larger world. The learning outcomes we establish for specific programs need to complement the mission and reinforce the achievement of the six college-wide Common Learning Outcomes (CLOs).

In developing and using program level assessment plans, it is important to give consideration to how the program's expected outcomes connect with these CLOs. While it is not necessary that all six of the CLOs are reflected in the program level outcomes, it is generally expected that program outcomes can be mapped on to at least two and likely up to four of these CLOs.

Graduates of Wartburg College will:

1.) Demonstrate breadth of knowledge and the ability to make connections across a range of disciplines (Broad & Integrative Knowledge).

For example, students will be able to:

- use knowledge from different academic domains to understand a topic or research an issue.
- analyze and explain important patterns in the natural world, human behaviors, fine arts and humanities, and the intersections among them.
- use both quantitative and qualitative reasoning to analyze and interpret information.
- articulate connections between the content of an academic major and other fields.
- locate, evaluate, and effectively use a variety of information sources.

2.) Demonstrate depth of knowledge and the ability to use and apply the distinctive methods and forms of inquiry within the disciplinary area of the academic major (Deep & Distinctive Knowledge).

For example, students will be able to:

- explain and apply key concepts within the field of study.
- use distinctive methods and forms of inquiry to investigate specific questions within the field.
- use critical thinking and problem-solving skills within the field.
- demonstrate an awareness of the historical, social, and ethical contexts that shape the field.
- locate, evaluate, and effectively use a variety of information sources specific to the field.

3.) Work effectively in collaboration with others, being respectful and civil toward others.

For example, students will be able to:

- put aside self-interests in an effort to find common ground or achieve shared goals.
- exercise responsible stewardship in an effort to preserve resources and provide for the needs of others, recognizing the civic responsibility we have in allocating and using resources.
- express dissent or disagreement within a group setting in a manner that is constructive and respectful of differing viewpoints.

- identify situations which call for personal action and leadership as well as those that call for supporting the leadership taken by another.
- listen to and understand what others communicate, and express one's own ideas, based on more than one means of communication, including the use of different languages and other channels of communication.

4.) Articulate the ways in which faith and ethics inform their decisions, actions, and engagement as community members (Ethics and Engagement).

For example, students will be able to:

- reflect on, discuss, and develop informed convictions about faith, ethics, and values.
- speak and act in ways that respect others and build community, for example by following the Student Honor Code and Student Conduct Code.
- model and foster respectful dialogue and civil discourse.
- understand how faith shapes and informs values, relationships, decisions, and vocational choice.
- apply sustainable practices that support stewardship of local and global resources.

5.) Communicate effectively and appropriately in writing and speaking.

For example, students will be able to:

- communicate effectively in their disciplines.
- write prose that is clear, well-constructed, and engaging.
- speak persuasively and confidently.
- locate, use, and cite information from appropriate sources.

6.) Demonstrate the ability to appropriately, respectfully, and effectively communicate and work with people of diverse backgrounds and perspectives (Cultural Competence).

For example, students will be able to:

- utilize relevant and sensitive strategies in their communication and interaction with individuals from different back grounds.
- articulate awareness of their own cultural worldviews, values, and norms.
- demonstrate knowledge of different cultural worldviews, values, and norms.
- advocate on behalf of the well-being of diverse populations with whom they may work.
- adjust constructively to changing social environments as the nature of diversity takes on new meanings in the future.

Appendix B: Examples of Assessment Methods

	Direct Measures	Indirect Measures
Course Level	Course and homework assignments Examinations and quizzes	Course evaluations
	Standardized tests	Test blueprints (outlines of the concepts and skills covered on tests)
	Term papers and reports	Percent of class time spent in active learning
	Observations of field work, internship performance, service learning, or clinical experiences	Number of student hours spent on service learning
	Research projects	Number of student hours spent on homework
	Class discussion participation	Number of student hours spent at intellectual or cultural activities related to the course
	Case study analysis	Grades that are not based on explicit criteria related to clear learning goals
	Rubric(a criterion-based rating scale) scores for writing, oral presentations, and performances	
	Artistic performances and products	
	Grades that are based on explicit criteria related to clear learning goals	

<p>Program Level</p>	<p>Capstone projects, senior theses, exhibits, or performances</p> <p>Pass rates or scores on licensure, certification, or subject area tests</p> <p>Student publications or conference presentations</p> <p>Employer and internship supervisor ratings of students' performance</p>	<p>Focus group interviews with students, faculty members, or employers</p> <p>Registration or course enrollment information</p> <p>Department or program review data</p> <p>Job placement</p> <p>Employer or alumni surveys</p> <p>Student perception surveys</p> <p>Proportion of upper-level courses compared to the same program at other institutions</p> <p>Graduate school placement rates</p>
<p>Co-Curricular Programs</p>	<p>STAR Interview and Rubric</p> <p>S.M.A.R.T. Rubric</p> <p>Mentoring Impact Rubric</p>	<p>1st Destination Surveys: Online, telephone</p> <p>SOAR survey, Students and Parents</p> <p>Disability Services and Accessibility Survey</p> <p>Academic Success Associates Annual Report</p> <p>Enrollment Management Data</p>

Appendix C: Timeline for Assessment of Student Learning Cycle (Rev.FDR)

Time Frame	Assessment Work	Individuals Involved
Late August/Early September	<p>Review assessment work completed since January 1 to current year.</p> <p>Orient any new faculty/staff to program assessment plan(s).</p> <p>Prepare to implement fall term assessment activities in accordance with program assessment plan.</p>	Program faculty/staff with chair/director
September through December	Carryout assessment activities in accordance with program assessment plan.	Program faculty/staff
December/January	<p>Review previous 12 months of assessment activities and prepare to submit Assessment Update Report.</p> <p>Prepare to implement winter term assessment activities.</p>	Program faculty/staff with chair/director
By January 31	<p>Assessment Update Report Due to Assessment Committee [Focus on work completed from January 1 through December 31 of previous year.]</p>	Program Chair/Director
January through May	Carryout assessment activities in accordance with program assessment plan.	Program faculty/staff
By February 28	Assessment Committee provides feedback to program on Update Report	Assessment Committee
March	Review/revise/update assessment plans/activities as necessary based on Assessment Committee feedback.	Program faculty/staff with chair/director
June through August	As faculty/staff are available and willing, analysis and interpretation of assessment findings can continue through the summer.	Faculty/staff, as available and interested.
<p><i>Cycle repeats with the start of a new academic year in late August/early September (see first entry above).</i></p>		



DEPARTMENT OF BIOLOGY

Appendix D: Biology Department Student Learning Outcomes

The student will:

- 1) demonstrate knowledge of biological concepts from molecular to ecological levels.
- 2) integrate multiple levels of complexity in their explanation of biological processes.
- 3) identify, justify and utilize appropriate scientific tools and methods in the completion of biological research.
- 4) critically evaluate scientific literature and data, and draw conclusions.
- 5) clearly communicate scientific information in written and oral presentations.
- 6) recognize and articulate examples of, and devise possible solutions to, problems associated with the social and ethical aspects of the biological sciences.

Neuroscience Student Learning Outcomes (NSCSLO)

The student will:

- 1) demonstrate knowledge of neuroscience concepts from molecular to behavioral levels.
- 2) identify, justify and utilize appropriate scientific tools and methods in the completion of scientific research.
- 3) critically evaluate scientific literature and draw conclusions.
- 4) critically evaluate scientific data and draw conclusions.
- 5) clearly communicate scientific information in written and oral presentations.
- 6) recognize and articulate examples of, and devise possible solutions to, problems associated with the social and ethical aspects of neuroscience and its related disciplines.

Environmental Science and Studies Student Learning Outcomes (ESSSLO)

The student will:

- 1) gain perspective on and understand the breadth and depth of environmental issues/problems.
- 2) integrate economics, social and natural sciences in order to identify, assess and address complex environmental problems.
- 3) critically evaluate field specific (scientific and otherwise) literature and draw conclusions from the contained material including data.
- 4) engage in environmental field experiences, including laboratories, independent studies or internships, that will enhance concepts and practices presented in more traditional curricula.
- 5) recognize and articulate examples of, and devise possible solutions to, problems associated with the social, economic and ethical aspects of environmental science and studies.
- 6) understand the gravity of environmental degradation and its global implications including social and economic cost.

Appendix E: Full Assessment Report - Business Administration Program

BUSINESS ADMINISTRATION SLO ASSESSMENT OUTLINE

1. GOALS: WHAT WE WANT OUR STUDENTS TO BE ABLE TO DO, KNOW, AND VALUE?

- 1.1 Wartburg College's Mission
- 1.2. Wartburg College's Common Learning Outcomes (CLO)
- 1.3. Business Administration, Accounting, and Economics Student Learning Outcomes (SLOs)
- 1.4. Sample SLO from Business Administration/Accounting/Economics Programs

2. MEASURE: HOW WELL ARE STUDENTS ACHIEVING THESE GOALS? WHAT FACTORS INFLUENCE LEARNING?

- 2.1. Curriculum Mapping
 - 2.1.1. For each SLO identify a related course
 - 2.1.2. For each SLO identify the relationship level
 - 2.1.2.1. I = Introduced
 - 2.1.2.2. P/R= Practiced/Reinforced
 - 2.1.2.3. M/A=Mastered/Assessed
- 2.2. Determine Assessment Method (Use multiple measures but at least one DIRECT measure)
- 2.3. Develop a scoring guide/Rubric: What Competencies are assessed?
- 2.4. Set Benchmarks defining student (criteria for) student success
- 2.5. Collect data on student performance (Establish baseline data)
- 2.6. Analyze collected data
- 2.7. Interpret findings

3. ACTION: ("CLOSING THE LOOP"). HOW DO WE USE THE INFORMATION TO IMPROVE STUDENT LEARNING?

- 3.1. Write your assessment report
- 3.2. If success, keep it up and move to the other SLO
- 3.3. If below expectation, identify the reasons why and improve the course/program to achieve that specific SLO
- 3.4. Plan for next assessment cycle including lessons from this year

STEP 1: SETTING GOALS: WHAT WE WANT OUR STUDENTS TO BE ABLE TO DO, KNOW, AND VALUE?

Table 1: Goals

GOALS	DESCRIPTION
MISSION	Wartburg College is dedicated to challenging and nurturing students for lives of leadership and service as a spirited expression of their faith and learning.
WARTBURG COLLEGE COMMON LEARNING OUTCOMES (CLOs)	CLO 1. Demonstrate breadth of knowledge and the ability to make connections across a range of disciplines (Broad & Integrative Knowledge).
	CLO 2. Demonstrate depth of knowledge and the ability to use and apply the distinctive methods and forms of inquiry within the disciplinary area of the academic major (Deep & Distinctive Knowledge)
	CLO 3. Work effectively in collaboration with others, being respectful and civil toward others
	CLO 4. Articulate the ways in which faith and ethics inform their decisions, actions, and engagement as community members (Ethics and Engagement).
	CLO 5. Communicate effectively and appropriately in writing and speaking.
	CLO 6. Demonstrate the ability to appropriately, respectfully, and effectively communicate and work with people of diverse backgrounds and perspectives (Cultural Competence).
BUS. ADMIN STUDENT LEARNING OUTCOMES (SLOs)	SLO 1: Analyze a real-world scenario to identify key issues and recommend action (Derived from CLO 2)
	SLO 2: Apply quantitative skills to solve business problems (Derived from CLO 1)
	SLO 3: Apply values and ethics to organizational problems (Derived from CLO 4)
	SLO 4: Formulate and communicate, using appropriate technology, a well-organized argument supported by evidence (Derived from CLO 5)
	SLO 5: Complete a business related task/project while participating in a team based environment(Derived from CLO 3 and CLO 6)
SELECTED SLO AS A SAMPLE	SLO 1: Analyze a real-world scenario to identify key issues and recommend action

STEP 2: ASSESS/MEASURE STUDENT LEARNING:

2.1. CURRICULUM MAPPING

- 2.1.1. For each SLO identify a related course
- 2.1.2. For each SLO identify the relationship level (I = INTRODUCED, P/R= PRACTICED/REINFORCED, AND M/A=MASTERED/ASSESSED)

2.1. CURRICULUM MAPPING

Table 2: CURRICULUM MAPPING

Business Administration Major		I=Introduced P=Practiced M=Mastered																	
SLO	Description	AC 121	AC 122	BA 325	BA 331	BA 334	BA 345	BA 353	BA 460	EC 117	EC 118	CS 110	CS 120	MA 107	MA 250	MA 214	MA 313	BA 371/372	BA 450
SLO 1	Analyze a real-world scenario to identify key issues and recommend action			PM	PM	P	IP	IP	PM	IP	IP								
SLO 2	Apply quantitative skills to solve business problems	I	IP	IP		M	I	IP	M	IP	IP								
SLO 3	Apply values and ethics to organizational problems	I	I	IP	I	P	IP	IP	M										
SLO 4	Formulate and communicate, using appropriate technology, a well-organized argument supported by evidence			IPM		P	IP	IP	M	IP	IP								
SLO 5	Complete a business related task/project while participating in a team based environment				IP	P		P		IP	IP								

2.2. DETERMINE ASSESSMENT METHOD

Table 3: CURRICULUM MAPPING

Business Administration Major		I=Introduced P=Practiced M=Mastered																	
SLO	Description	AC 121	AC 122	BA 325	BA 331	BA 334	BA 345	BA 353	BA 460	EC 117	EC 118	CS 110	CS 120	MA 107	MA 250	MA 214	MA 313	BA 371/372	BA 450
SLO 1	Analyze a real-world scenario to identify key issues and recommend action			PM	PM	P	IP	IP	PM	IP	IP								
	ASSESSMENT METHOD								CASE STUDY										

- FOR THE PURPOSE OF DEMONSTRATING HOW THIS SPECIFIC SLO IS ASSESSED, ONE OF THE DIRECT MEASURES (I.E., CASE STUDY) IS SELECTED FROM SENIOR SEMINAR COURSE (I.E., BA 460)

2.3. DEVELOP A SCORING GUIDE/RUBRIC: WHAT COMPETENCIES ARE ASSESSED?

Table 4: SAMPLE RUBRIC FOR GRADING CASE STUDY

Case Analysis: 50 points

Element	Points	High	Medium	Low	Unacceptable	Points Earned
Executive Summary	Add up to 5 points	Previews key points completely yet concisely; captures, holds reader's interest throughout	Previews most key points adequately; elicits some reader interest	Doesn't adequately summarize key points.	Omitted entirely or seriously deficient	5
External Analysis	Add up to 10 points	Exceptional background of firm's industry; key external opportunities & threats clearly identified. Relevant high quality research supports analysis.	Industry analysis could have been more complete and/or clear; some key opportunities and/or threats overlooked.	Industry analysis lacks depth; competitive analysis is minimal; research is lacking or of questionable value	Analysis of the firm's industry, market threats and opportunities is missing entirely or unacceptable	
Internal Analysis	Add up to 10 points	Key internal weaknesses and threats are clearly identified; relevant high quality research supports analysis	One or two key strengths and weaknesses overlooked or not treated in sufficient depth; more research could have been used to support your arguments.	Internal analysis lacks sufficient depth; research is minimal and/or of questionable value	Specific strengths and weaknesses not identified; no research was done	
Issue Identification	Add up to 10 points	Identification of key issue shows keen critical thought and synthesis of SWOT factors; key issue stated clearly and succinctly; compelling case made for issue identified as key	Acceptable level of critical thought and ability to synthesize complex data; key issue could be stated more clearly and/or succinctly; offers defensible argument for issue identified	Minimal synthesis of SWOT factors evident; statement of key issue lacks clarity; offers little to support selection of key issue.	A most important issue isn't stated; or, if it is, it is completely unrelated to SWOT factors	
Alternatives, Recommended Action	Add up to 10 points	At least 2 viable alternatives for addressing/resolving the key issue result from higher order thinking; recommended course of action based on best practice research	Acceptable level of critical thought evident in suggestion of at least 2 viable alternatives for addressing/resolving the key issue; defensible case made for recommended course of action	Only one course of action identified and/or insufficient research results in weak case for recommended course of action	Recommended course of action is unclear; no specific support offered for re-commendation	
Appendices and Exhibits	Add up to 5 points	Exhibits comply with accepted rules for presentation of data; make "dense" verbiage easier to comprehend.	Some minor errors in the exhibits' presentation of data; information contained in exhibits could be more clear	Significant errors made in presentation of data; some conflict or inconsistency with body of paper	Key appendices are omitted	5
Use of sources	Subtract up to 40 points	Attributes paraphrases and quotes to sources; provides an APA-compliant "References" page.	Occasional failure to acknowledge sources correctly; two or fewer APA violations	Multiple instances of failing to acknowledge sources correctly; three or four APA violations	Extensive, obvious plagiarism; more than five APA violations	0
Technical skills	Subtract up to 20 points	Grammar, spelling, punctuation correct or very minor errors	Some grammar, punctuation, and/or spelling errors; more proofreading needed	Numerous and/or serious composition errors; failure to use spell-check	Unacceptable; composition errors extensive	0
Readability	Subtract up to 20 points	Logically organized, good flow, easy to read and follow; section headings are especially clear and helpful to the reader	Organization is a bit "choppy;" precise meaning unclear at times; uses headings to separate sections	Organization is hard to follow at times; meaning less clear than desirable; some section headings missing	Meaning is often unclear; omits section headings	0
Total						10

2.4. SET BENCHMARKS DEFINING STUDENT (CRITERIA FOR) SUCCESS

Based on a number of factors shown on page 13 of this handbook, departments or programs can set a benchmark that determines a pass rate. One of these factors can be individual student scores for the past years. Here for demonstration purposes only, a **hypothetical** desired criterion level is assumed to be an 80% pass rate.

2.5. COLLECT DATA (ESTABLISH BASELINE DATA)

The students' scores on their case study projects have been collected using the above rubric. A sample of that data for one of the previous terms is given below in Table 5. This data is based on a randomly drawn 10 students from one of our BA 460 classes.

Table 5: COLLECTED AND ANALYZED DATA ON STUDENT PERFORMANCE USING ROW 2 – 5 OF THE ABOVE RUBRICS

Randomly Sampled Students	External Analysis (max. 10 points)	Internal Analysis (max. 10 points)	Issue Identification (max. 10 points)	Alternatives, Recommended Action (max. 10 points)	Total Points (max. 40 points)	Out of 100%	High (90-100%)	Medium (70-89%)	Low (50-69%)	Unacceptable (<50%)
Student 1	9	9	7	6	31	77.5	2	1	1	0
Student 2	10	10	10	9	39	97.5	4	0	0	0
Student 3	10	10	10	6	36	90	3	0	1	0
Student 4	7	9	9	7	32	80	2	2	0	0
Student 5	9	7	9	7	32	80	2	2	0	0
Student 6	8	8	9	8	33	82.5	1	3	0	0
Student 7	10	9	10	9	38	95	4	0	0	0
Student 8	9	8	9	7	33	82.5	2	2	0	0
Student 9	9	8	9	7	33	82.5	2	2	0	0
Student 10	9	9	9	7	34	85	3	1	0	0
Total					341		25	13	2	0
Average					34.1	85.25				

2.6. ANALYZE COLLECTED DATA

Based on the above data, we find that the:

- Out of a total of 10 students included in the sample, 3 of them score more than 90 %, 6 of them got between 80 - 90%, and the remaining 1 student achieved 77.5 %.
- The average score is 85.25 %.
- The Minimum score is 77.5% and the maximum is 97.5%.

2.7. INTERPRET FINDINGS

When comparison is made with our benchmark, a total of 9 students (i.e., 90% of the class) achieved the pre-determined 80% pass rate set as the desired criterion level. However, the remaining one student didn't meet this benchmark.

“CLOSING THE LOOP”

HOW DO WE USE THE INFORMATION TO IMPROVE STUDENT LEARNING?)

Write your assessment report

A complete report including the above result will be written and sent to the assessment committee by the set submission date.

If benchmarks are met, keep it up and move to the other SLOs

If below expectation, identify the reasons why and improve the course/program to achieve that specific SLO

For those students who failed to achieve the desired criterion level, appropriate action will be taken to improve this specific student learning and this change will be reflected in the next year/cycle SLO assessment plan.

Plan for next assessment cycle including lessons from this year

Since the target success rate is achieved for this particular SLO, in the next assessment period the program will focus on the other SLOs. However, one lesson that can be taken from this specific SLO is that the program will attempt to achieve an even better pass rate than an 80% desired criterion level.

Appendix F: Model Assessment Rubric: Writing Across the Curriculum

Levels of Student Achievement

Criteria	Level 4	Level 3	Level 2	Level 1
Context of and Purpose for Writing <i>Includes considerations of audience, purposes, and the circumstances surrounding the writing task (s)</i>	Demonstrates a thorough understanding of context, audience, and purpose; responsive to assigned task and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task.	Demonstrates awareness of context, audience, purpose, and the connection to the assigned task.	Demonstrates minimal attention to context, audience, purpose and to the assigned task.
Content Development	Uses appropriate, relevant, and compelling content to convey clear understanding and shape the work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the 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.
Genre and disciplinary conventions <i>Rules inherent in the expectations for writing in particular forms and/ or academic fields</i>	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s).	Consistently uses important conventions particular to a specific discipline and/or writing task(s) including organization, content, and presentation.	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation.	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Graceful use of language that skillfully communicates meaning with clarity and fluency. Virtually error free.	Uses straightforward language that generally conveys meaning with few errors.	Uses language that generally conveys meaning with consistent errors.	Uses language that sometimes impedes meaning because of errors in usage.

Appendix G: Bloom's Taxonomy of Cognitive Processes VERBS—Increasing Complexity

REMEMBER—

Recognize	Identify
Recall	Retrieve

UNDERSTAND— Comprehend Express Exhibit Communicate

Interpret	Clarify, Paraphrase, Represent, Translate
Exemplify	Illustrate, Instantiate
Classify	Categorize
Summarize	Abstract, Generalize
Infer	Conclude, Extrapolate, Interpolate,
Compare	Contrast, Map, Match
Explain	Construct models

APPLY— Demonstrate Practice

Execute	Carry out
Implement	Use

ANALYZE— Investigate

Differentiate	Discriminate, Distinguish, Focus, Select
Organize	Find coherence, integrate, Outline, Parse, Structure
Attribute	Deconstruct

EVALUATE—

Check	Coordinate, Detect, Monitor, Test
Critique	Judge

CREATE— Predict Revise Devise Synthesize

Generate	Hypothesize
Plan	Design
Produce	Construct

Appendix H: 2014-2015-2016 Assessment Committee Members

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