ASSESSMENT
OF PROGRAMS:
Master’s Institutions

William Wiener
December 7, 2011
Two Components of Evaluation

• Program Review
  – The purpose of program review is the improvement of graduate programs

• Assessment
  – The purpose of assessment is to improve student learning

Program Review and Assessment go Hand-in-Hand
Both can be linked to improve program quality
Purpose of Program Reviews

- Formative
- Continuous improvement
- Data driven and outcome based
- Evaluative
- Accountability
  - Disciplinary accrediting bodies
  - Regional accrediting bodies
Types of Program Reviews

• Periodic
  – External Reviews
  – Internal Review
  – Annual Program Profiles

• Snapshot
  – Comprehensive
    • Ohio State
    • University of North Carolina, Greensboro
Assessment & Review of Graduate Programs: Quotes from new CGS Monograph

- It is recommended that every graduate program be reviewed every five to ten years.
- Graduate program review is an independent process, distinct from any other review.
- Integrating outcomes assessment with formal review process maximizes the value of both and reflects best practice.
- Most important, program review results in action.
  - This plan is linked to the institution’s budget and planning process in order to ensure that recommended changes are actually made.
- One year after the action plan or memorandum of understanding is signed, or at some other agreed-upon date, the parties responsible for each action item should be asked to report on what has been accomplished.
Data Points

• Typically Required
  – Fit with Mission and Strategic Goals of University
  – Purpose of Program
  – Students within Program
  – Demand for graduates
  – Application rates
  – Selectivity rates
  – Yield rates
  – Applicant admission scores
  – Grade Credentials of Applying, Admitted, and Enrolled Students
  – Attrition rates
  – Completion rates
  – Time-to-Degree
  – Prerequisite physical space and facilities
  – Curriculum structure
Data Points

• Typically Required
  – Teaching course loads
  – Certificate productivity
  – Master’s degree productivity
  – Doctoral degree productivity
  – Class Size
  – Funded activities and sponsored research
  – Publishing recognition activities
  – Success of graduates
  – Instruction productivity
  – Equipment and Needs
  – Library
  – External Success Measures
  – Excellence Awards
  – Number of Assistantships
  – Percentage of full time students with Assistantships
  – Student Learning - Assessment
Embedding Assessment into Academic Program Reviews

• Purpose of reviews is to determine if program achieves its objectives
• Assessment examines success of students in achieving learning objectives
• The pairing of the two is a good strategy
Assessment
The Political Climate of Accountability

- Disciplinary Accrediting Bodies
- Regional Accrediting Bodies
- The U.S. News and World Report Rankings
- The National Research Council
- Reauthorized Higher Education Act
Disciplinary Accrediting Bodies

- Association to Advance Collegiate Schools of Business
- Accrediting Council on Education in Journalism and Mass Communication
- Commission on Dental Accreditation of the American Dental Association
- Accreditation Board for Engineering and Technology
- American Bar Association and Association of American Law Schools
- Commission on Collegiate Nursing Education
- National Council for Accreditation of Teacher Instruction
- American Psychological Association
- American Speech-Language-Hearing Association
- National Accrediting Agency for Clinical Laboratory Sciences
- Accreditation Review Commission on Education for the Physician Assistant
- American Physical Therapy Association
- American Society of Exercise Physiology
- National Athletic Training Association Board of Credentialing
Assessment Concepts

• **Definition:** the systematic collection review and use of information about student learning in order to inform decisions about how to improve learning

• It is a type of “**action research**” used to inform local action.

• It does not necessarily require standardized tests or “objective measures.” One can assess critical thinking, scientific reasoning, or other qualities by making informed professional judgments
History of Assessment

- Universities have always engaged in informal assessment
- 1990 in *Scholarship Reconsidered*, encouraged quality teaching
- In 1992 the federal government required accrediting agencies to include student learning outcomes as part of accreditation
- In 2001 the Council for Higher Education, in *Accreditation and Student Learning Outcomes: A Point of Departure* argued for use of SLOs
- In 2003 the Council for Higher Education Accreditation in its *Statement of Mutual Responsibilities for Student Learning Outcomes* urged use of SLOs
- In 2005 in the publication of *The Responsive Ph.D.* emphasized as one of its four principles, conducting assessment with reasonable consequences
- Each of the six regional accrediting bodies have standards calling for use of SLOs
Levels of Undergraduate Assessment

• Four levels of student learning outcomes are typically required at UG level:
  – Course Outcomes
  – Program/Departmental Outcomes
    • Skills or abilities specific to the major of study
  – General Education Course Outcomes
    • Writing, communication, mathematics, critical thinking, foreign language, etc.
    • Broad exposure to such areas as fine arts, humanities, cultures and civilizations, social and behavior sciences, natural sciences, and health and well being
  – Institutional Outcomes
Levels of Graduate Assessment

- Course Outcomes
- Departmental Outcomes
- Foundational Outcomes (commonalities)
- Institutional Outcomes
## Departmental Assessment

0=No Coverage; 1=Slight Coverage; 2=Moderate Coverage; 3=Major Coverage

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Objective 1 Theoretical Knowledge</th>
<th>Objective 2 Counseling Skills</th>
<th>Objective 3 Cultural Competency</th>
<th>Objective 4 Legal/Ethical Regulatory</th>
<th>Objective 5 Research</th>
<th>Objective 6 Assessment &amp; Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CECP 601</td>
<td>Intro to Counseling</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CECP 602</td>
<td>Theories of Counseling</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CECP 603</td>
<td>Professional Issues</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CECP 620</td>
<td>Group Dynamics</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CECP 640</td>
<td>Appraisal Procedures</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CECP 645</td>
<td>Research</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>CECP 650</td>
<td>Practicum</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>CECP 660</td>
<td>Multicultural</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Modified from James Madison University
Six Basic Steps in Assessment
Step One

• Document departmental goals for student learning
Step One Examples

• Acquire advanced knowledge and a deeper understanding of the skills and knowledge in the discipline
• Develop a sense of responsibility towards, as well as an understanding of the ethical dimensions of the discipline
• Develop the competence, knowledge, and independence for the realization of leadership potential
• Other goals specific to the discipline
Step Two

• Document departmental goals for student learning

• Articulate the student learning outcome statements (what the student will be able to do upon completion)
Step Two

- The goals must be operationalized into learning outcome statements within the context of the discipline
- The statements should describe the attitudes, behaviors, skills, and ways of thinking
Step Two Examples

At the completion of the degree in communication, the graduate will be able to:

- 1. Communicate effectively in both oral and written format during capstone experience.
- 2. Articulate the historical, theoretical and methodological foundations of the discipline of communication.
- 3. Apply research-based, theory-informed knowledge of the field to solve real-life problems in a variety of work or community settings.
- 4. Apply ethical decision making skills in a variety of communication situations.
- 5. Integrate knowledge from theory, methods, and ethics from the discipline of communication to a particular specialization.
- 6. Design and execute an original thesis research project.
Step Three

• Document departmental goals for student learning
• Articulate the student learning outcome statements (what the student will be able to do upon completion)
• **Gather evidence on performance**
  – Direct measures
  – Proxy measures
Step Three: Gather Evidence

**Direct Evidence**
- Evaluation of papers, projects, original work in courses but not course overall grade
- Comprehensive examinations
- Certification examinations
- Licensure examinations
- Locally developed pretest and/or posttest
- Portfolios with evidence of learning
- Audio or videotaping
- Thesis/dissertations
- Peer-reviewed publications
- Disciplinary presentations
- Funded grants and fellowships

**Proxy Evidence**
- Benchmarking with peer institutions
- Career Placements
- Employer Surveys
- Advisory groups on curriculum development
- Student Graduation/retention rates
- Exit interviews
- Student satisfaction surveys
- Focus Groups
- Alumni surveys
- Alumni honors
- Analysis of grade distributions
- Peer review of courses and programs

wrwiener@unCG.edu
Step Four

• Document departmental goals for student learning
• Articulate the student learning outcome statements (what the student will be able to do upon completion)
• Gather evidence on performance
  – Direct measures
  – Proxy measures
• Use a rubric to evaluate how well goals are being met
Step Four: Use a Rubric

• Provides in writing various clear and explicit criteria for evaluation of student work
• Changes professional judgment into numerical ratings on a scale
• Allows comparison among various faculty across courses
### Example: Communication Rubric

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization</strong></td>
<td>Audience cannot understand presentation because there is no sequence of information.</td>
<td>Audience has difficulty following presentation because student jumps around</td>
<td>Student presents information in logical sequence which audience can follow.</td>
<td>Student presents information in logical, interesting sequence which audience can follow.</td>
<td></td>
</tr>
<tr>
<td><strong>Subject Knowledge</strong></td>
<td>Student does not have grasp of information; student cannot answer questions about subject.</td>
<td>Student is uncomfortable with information and is able to answer only rudimentary questions.</td>
<td>Student is at ease with expected answers to all questions but fails to elaborate.</td>
<td>Student demonstrates full knowledge (more than required) by answering all class questions with explanations and elaborations.</td>
<td></td>
</tr>
<tr>
<td><strong>Graphics</strong></td>
<td>Student uses superfluous graphics or no graphics</td>
<td>Student occasionally uses graphics that rarely support text and presentation.</td>
<td>Student’s graphics relate to text and presentation.</td>
<td>Student’s graphics explain and reinforce screen text and presentation.</td>
<td></td>
</tr>
<tr>
<td><strong>Mechanics</strong></td>
<td>Student’s presentation has four or more spelling errors and/or grammatical errors.</td>
<td>Presentation has three misspellings and/or grammatical errors.</td>
<td>Presentation has no more than two misspellings and/or grammatical errors.</td>
<td>Presentation has no misspellings or grammatical errors.</td>
<td></td>
</tr>
<tr>
<td><strong>Eye Contact</strong></td>
<td>Student reads all of the report with no eye contact.</td>
<td>Student occasionally uses eye contact, but still reads most of report.</td>
<td>Student maintains eye contact most of the time but frequently returns to notes.</td>
<td>Student maintains eye contact with audience, seldom returning to notes.</td>
<td></td>
</tr>
<tr>
<td><strong>Elocution</strong></td>
<td>Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in back of the class to hear.</td>
<td>Student’s voice is low. Student incorrectly pronounces terms. Audience members</td>
<td>Student’s voice is clear. Student pronounces most words correctly. Most audience members can hear presentation.</td>
<td>Student uses a clear voice and correct, precise pronunciation of terms audience members can hear presentation.</td>
<td></td>
</tr>
</tbody>
</table>

Created by Lee Bash, Higher Learning Commission Presentation
<table>
<thead>
<tr>
<th>GSLO and Criteria</th>
<th>Does Not meet Expectation (Unacceptable)</th>
<th>Meets Expectation (Acceptable)</th>
<th>Exceeds Expectation (Outstanding)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Knowledge and Scholarship</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Literature review:</td>
<td>Demonstrates comprehensive knowledge of current research in the field of study</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Hypothesis/Objectives:</strong></td>
<td>Generates viable question and hypothesis related to the question</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. Research methods:</strong></td>
<td>Applies appropriate research methods to address hypothesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Effective communication:</strong></td>
<td>Discusses effectively and documents the contribution of research/scholarship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Content</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Delivery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Format</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Critical Thinking</strong></td>
<td>Demonstrates sufficient knowledge of appropriate concepts, theories, and emerging methodologies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Data analyses:</td>
<td>Performs analyses of data and presents the results in a clear manner</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Interpretation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. Appropriate conclusions</strong></td>
<td>Cites references appropriately. Honest and accurate interpretation of data. References listed correctly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Ethical and responsible research</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Holistic Summative Assessment:** The holistic summative assessment rates the overall performance based on the evidence provided in 1 – 4 items in the formative assessment.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>PERFORMANCE RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOES NOT PASS</td>
</tr>
</tbody>
</table>

**NOTE:** Each committee member can turn in his/her evaluation.
Step Five

• Document departmental goals for student learning

• Articulate the student learning outcome statements (what the student will be able to do upon completion)

• Gather evidence on performance
  – Direct measures
  – Proxy measures

• Use a rubric to evaluate how well goals are being met

• Use the information for improvement of learning
<table>
<thead>
<tr>
<th>Program Learning Outcomes</th>
<th>Performance Indicators</th>
<th>Measures</th>
<th>Use of the Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate an in depth mastery of advanced concepts in biological sciences</td>
<td>1A. Display proficiency in course learning objectives in designated core and specialty area courses</td>
<td>1A. Grades in designated projects in core courses (BIOL 211, 212, 213, and 214) and specialty area courses. Rubrics/performance criteria are related to course objectives.</td>
<td>Information from 1A, Grades; 1B (a) (ii), the Annual Report and (b) Results of the Qualifying Exam, and 1C to be collected, compiled and reviewed by Departmental Graduate Affairs Committee.</td>
</tr>
<tr>
<td></td>
<td>1B. Communicate, articulate and explain advanced biological concepts developed from core courses, courses in specialty area and research in both (a) oral and (b) written formats</td>
<td>1B. (a) Evaluation of departmental seminar presented by student every year. after the first year.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1C. Critique advanced biological concepts with reference to current research reports and alternative theories.</td>
<td>1C. Evaluation of (i) proposal format written exam in which the student designs a logical series of experiments to address an open ended question.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Information to be collected compiled and reviewed by Departmental Graduate Affairs Committee. (see above)</td>
</tr>
<tr>
<td>2. Demonstrate independent scientific thinking</td>
<td>2. Identify a meaningful research problem, describe underlying previous research and theory relevant to the identified research problem, develop a hypothesis regarding the research problem and suggest a logical progression of experiments to test the hypothesis</td>
<td>2. Evaluation of (i) proposal format written Qualifying Exam in which the student designs a logical series of experiments to address an open ended question, (ii) dissertation research plan, and (iii) completed dissertation at final defense, by 5 faculty member graduate advisory committee.</td>
<td>Information to be collected compiled and reviewed by Departmental Graduate Affairs Committee. (see above)</td>
</tr>
<tr>
<td>3. Design and execute an original research project.</td>
<td>3. Develop a hypothesis regarding an identified research problem, design and carry out experiments to test that hypothesis, and evaluate experimental results in regard to proposed hypothesis.</td>
<td>3. Evaluation of (i) dissertation research plan, and (ii) completed dissertation at final defense, by 5 faculty member graduate advisory committee.</td>
<td>Information to be collected compiled and reviewed by Departmental Graduate Affairs Committee. (see above)</td>
</tr>
</tbody>
</table>
Example of Usage at Marquette

• Finding: Students lack quantitative skills in understanding graphs, charts, and numerical concepts
  – Solution: Embedding Math Across the Curriculum
Step Six

• Document departmental goals for student learning
• Articulate the student learning outcome statements (what the student will be able to do upon completion)
• Gather evidence on performance
  – Direct measures
  – Indirect measures
• Use a rubric to evaluate how well goals are being met
• Use the information for improvement of learning
• Evaluate the assessment process itself for improvement
## Improvement of Assessment

<table>
<thead>
<tr>
<th>1=Beginning</th>
<th>2=Developing</th>
<th>3=Good</th>
<th>4=Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>No mention of how this iteration of assessment is improving from past administration</td>
<td>Some critical evaluation of past and current assessment, including acknowledgement of flaws, but not evidence of improving upon past assessment or making plans to improve assessment in future iterations</td>
<td>Critical evaluation of past and current assessment, including acknowledgement of flaws; Plus evidence of some moderate revision, or general plans for improvement of assessment process.</td>
<td>Critical evaluation of past and current assessment, including acknowledgement of flaws; both present improvements and intended improvements are provided; for both, specific details are given. Either present improvements or intended improvements must encompass a major revision.</td>
</tr>
</tbody>
</table>

Courtesy of James Madison University
Procedural Items to be Addressed

• Who will be responsible for administration of the assessment plan
• What are the resources and structures for assessment
• Who are the targeted students (population vs. sample)
• When will the student assessments be conducted and repeated
• How is assessment data to be used for improvement of learning
• What are the recommended changes to improve the assessment mechanism
Graduate Core Competencies

- Each graduate program should have its discipline specific GSLOs
- But graduate education doesn’t have general education courses or a core curriculum

  - Therefore is it possible to have GRADUATE CORE LEARNING OUTCOMES?
  - Are there outcomes that are common across all graduate programs at a university?
Possible Graduate CORE Learning Outcomes

- Communicate the history of the discipline
- Demonstrate a mastery of the theory that underlies the foundation of the discipline
- Demonstrate a mastery of the methodology and techniques specific to the discipline
- Demonstrate proficiency in oral and written communication within the field of study
- Demonstrate a mastery of research, scholarship, and critical evaluation within the field of study
- Demonstrate creative or innovative activity within the field of study
- Function as a professional and a steward of the discipline
- Demonstrate a mastery of professional ethics and/or research ethics
The Controversy

• Assessment seen as a bureaucratic imposition vs. a method to improve learning and pedagogy
  – September 7th 2010 Chronicle Article entitled *Assessment Projects from Hell* by David Glenn
    • 45 irate comments
  – November 12th 2010 Chronicle article entitled *It’s Not How Much Student Data You Have, but How You Use It* by Sara Lipka
    • “Ready, shoot, aim”
What Lies Ahead?

• Assessment required by accreditation
• Make assessment pay off
• Need for benchmarks
• Developing SLOs across universities to allow comparisons
• Determination if standardized tests are needed
• Preparing future faculty for assessment
  – CGS Teagle Foundation Project
• CGS Publications
Questions and Answers