Appendix A - Assessment Planning Worksheets, Directions, and Annual Progress Report Template

Worksheet A - Mission and Outcomes/Objectives Development

Worksheet B - Assessment Plan

Worksheet C - Assessment Report

Annual Progress Report Template

Note: Worksheets A, B, and C are not required for submission, but rather serve as guides to building and supporting the submission of the required Annual Progress Report.

Worksheet A - Mission and Outcomes/Objectives Development

Unit/Office/Program (A-1)	Assessment Period Covered (A-2)
Submitted by (A-3)	Date Submitted (A-4)

Institutional Mission: (A-5)
Ina, Setbe, Diskumbre

> Note: Worksheets A, B, and C are not required for submission, but rather serve as guides to building and supporting the submission of the required Annual Progress Report.

Institutional Strategic Goal Supported: (A-6)

Unit/Program Mission Statement: (A-7)

Unit/Program Goals: (A-8)

Unit/Program Outcomes/Objectives (A-9)
Outcome Objective 1: Strategies/Actions Steps
Outcome Objective 2: Strategies/Actions Steps
Outcome Objective 3: Strategies/Actions Steps
Outcome Objective 4: Strategies/Actions Steps
Outcome (Instructional) Program Review Outcomes: (A-10)

Mission and Outcomes/Objectives Development Worksheet A
Directions & Recommendations for Development

#	Directions & Recommendations for Development
A-1	**[Name of Unit/Office/Program**] Indicate the appropriate instructional program; GenEd, or Support Courses area.
A-2	**[Assessment Period Covered]** Specify the college/school's agreed-upon assessment time period (e.g., AY2009-2010)
A-3	**[Submitted by]** To be submitted by the head of the program, office, etc. to appropriate supervisor and/or committee. Ex: instructional programs should be submitted to curriculum
A-4	**[Date Submitted]** Date of original submission
A-5	**[Institutional Mission]** University's approved mission statement
A-6	**[Institutional Strategic Goals Supported]** Only the strategic goal (s) from the current university strategic plan to directly relate to the program/offices mission and responsibilities. Plan developers should also review the quality indicators found in the balanced scorecard for an overview of how quality is measured for the different strategic goals. In the context of accreditation the quality indicators represent institutional outcomes and in context of performance budget, the quality indicators are the key results expected of the organization.

A-7	**[Unit/Program Mission Statement]**
	 • Instructional programs
	     • An effective program mission statement should be linked to the University's mission statement and be written in a language so that it can be understood by students and parents. A mission statement might provide:
	        • A brief history of the program and describe the philosophy of the program
	        • The types of students it serves
	        • The type of professional training it provides
	        • The relative emphasis on teaching , scholarship , and service
	        • Important characteristics of program graduates.

A-8	**[Unit/Program Goals]** As approved by the administration through appropriate standing committee (academic affairs committee for instructional programs)
	 • Instructional programs
	     o Program goals are broad statements concerning knowledge, skills, or values that faculty expects graduating students to achieve. They describe general expectations for students, and they should be linked to the program mission. These goals should include the program learning outcomes, but may also address program review issues such as need to increase program enrollment, graduation rates, student and employer satisfaction, etc.
	     o Also see Appendix B for additional suggestions

A-9	**[Unit/Program Outcomes/Objectives]**
	 • SMART (specific, measurable, achievable, realistic, Timebound) outcomes/objectives should be used.
	 • All outcomes/objectives should include specific criteria to determine success. This could be the percent improvement goal (say 75%) on a student satisfaction survey or what per cent students in course will meet the SLOs. At the institution and campus levels this should reflect critical quality indicators and key results (graduate and retention rates, employer satisfaction with graduates, successful external transfers, etc.)
	 • Instructional programs
	     o See Appendix B for details on developing program learning outcomes.
	     o Strategies - key points:

	- Do the improvement strategies represent best practices? - Do the improvement strategies represent previous assessment/evaluation findings and recommendations?
A-10	**[Outcome (Instructional) Program Review Improvement Outcome]** Outcome resulting from program review (Instructional). Ex. A program that is experiencing low enrollment or retention may develop an outcome to improve program enrollment levels through improved marketing. A program with low retention, progression or persistence levels may seek to improve those rates through specific strategies designed to keep student in school.

Worksheet B - Assessment Plan

Unit/Office/Program (B-1)	Assessment Period Covered (B-2)
( ) Formative Assessment (B-3) ( ) Summative Assessment (B-4)	Submitted by & Date Submitted (B-5)

Institutional Mission/Strategic Goal: (B-6)

Mission: *Ina, Setbe, Diskumbre*

Strategic Goal (which strategic goal(s) most support the services being provided? (B-7)

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Unit/Program Mission Statement: (B-7)

Unit/Program Goals: (B-9)

Unit/Program Outcomes/Objectives: (B-10)

Evaluation questions: (B-11)	Data Sources (B-12)	Sampling (B-13)	Analysis (B-14)

Timeline (B-15)		
Activity (B-16)	Who is Responsible? (B-17)	Date (B-18)

Comments: (B-19)

Assessment Plan Worksheet #2

Directions & Recommendations for Development

#	Directions & Recommendations for Development
B-1	**[Name of Unit/Office/Program]**
B-2	**[Assessment Period Covered]** This refers to either section B-3 & B-4 and is a the agreed-upon time period
B-3	**[Formative Assessment]** refers to if the program/project activities are being implemented as designed – this occurs during the first year of the college's agreed-upon assessment cycle
B-4	**[Summative Assessment]** refers to if the desired outcomes/objectives were met – this occurs during the second year of the college's agreed-upon assessment cycle
B-5	**[Submitted by & Date Submitted]** refers to the date submitted to the assessment committee and should be submitted by the program/office head
B-6	**[Institutional Mission]** University's BOR-approved mission statement same as A-5
B-7	**[Institutional Strategic Goals Supported]** Only the strategic goal (s) from the current University's strategic plan to directly relate to the program/offices mission and responsibilities – same as A-6
B-8	**[Unit/Program Mission Statement]** As approved by Dean and SVP through appropriate standing committee (Curriculum Committee for instructional programs; same as A-7 • Instructional programs see Appendix B
B-9	**[Unit/Program Goals]** As approved by Dean and SVP through appropriate standing committee (Curriculum Committee for instructional programs; Student Services Committee for Student Services Programs; and Planning and Resources Committee for Administrative and other programs) – same as A-8 • Instructional programs see Appendix B for suggestions on developing program goals

B-10	**[Unit/Program Outcomes/Objectives]**
	• SMART (specific, measurable, achievable, realistic, Timebound) should be used.
	• All outcomes/objectives should include specific criteria to determine success. This could be the percent improvement goal (say 75%) on a student satisfaction survey or what per cent students in course will meet the SLOs. At the institution and campus levels this should reflect critical quality indicators and key results (graduate and retention rates, employer satisfaction with graduates, successful external transfers, etc.)
	• Instructional programs
	    o See IAP handbook appendix B for details on developing program learning outcomes.
	    o Strategies - key points:
	        ▪ Do the improvement strategies represent best practices?
	        ▪ Do the improvement strategies represent previous assessment/evaluation findings and recommendations?
	• Administrative and students services see the section of the handbook for administrative and student services)
	    o At least one objective is recommended to address University-wide improvement needs in the service area
	    o At least one objective is recommended relate to immediate improvement needs of the office or service area or address needs of the specific site and address quality, effectiveness and efficiency issues
	    o Some key points:
	        o Can the objectives be related to student learning and success?
	        o Do the objectives reflect institutional/department priorities?
	        o Do the objectives address quality, effectiveness and efficiency

	issues?
	    o Strategies - key points:
	         ▪ Do the improvement strategies represent best practices?
	         ▪ Do the improvement strategies represent previous assessment/evaluation findings and recommendations?

B-11 B-12 B-13 B-14	**[Evaluation Questions]** See "Appendix C – Development Evaluation Questions" in the IAP Handbook for information on developing evaluation questions – evaluation questions respond directly the stated program/office outcome/objective **[Data Sources]** Indicate the data sources that will allow answering the evaluation questions (note this should not be considered a laundry listing of data sources, but critical data needed to determine if the stated outcome or objective is met. Data should be collected (and in many cases analyzed) throughout the assessment period. Examples: Surveys, interviews, classroom observations, test instruments, rubrics, administrative records, etc. Make sure that the data sources (including method of collection) are of sufficient quality to assist in answering the evaluation question. **[Analysis]** How will the data sources be analyzed – what techniques will allow useful information to be obtained from the data sources. Examples: descriptive statistics, HLM, content analysis, cohort analysis, inferential statistics, etc. Are the analysis techniques a good fit for the data source? Are the analysis techniques reflecting generally accepted quality standards?
B-15 B-16 B-17 B-18	**[Timeline]** Summary of major activities – often major data collection points **[Activity]** Brief description of activity to be undertaken **[Who is Responsible]** Who is the lead person responsible for the ensuring the activity takes place **[Date]** Date when the activity will take place
B-19	**[Comments]** Any general comments related to the assessment plan

Worksheet C - Assessment Report

Unit/Office/Program (C-1)	Assessment Period Covered (C-2)
( ) Formative Assessment (C-3) ( ) Summative Assessment (C-4)	 Submitted by & Date Submitted (C-5)

Evaluation Question (Use a different form for each evaluation questions): (C-6)
First Means of Assessment for Evaluation Question Identified Above (from your approved assessment plan): (C-7)
1a. Means of Unit Assessment & Criteria for Success: (C-8)
1b: Summary of Assessment Data Collected: (C-9)
1c. Use of Results to Improve Program/Unit Impact/Services: (C-10)
Second Means of Assessment for Evaluation Question identified above (from your approved assessment plan): (C-11)
2a. Means of Unit Assessment & Criteria for Success:
2b: Summary of Assessment Data Collected:
2c. Use of Results to Improve Program/Unit Impact/Services:

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Unit/Office/Program (C-1)	Assessment Period Covered (C-2)

Third Means of Assessment for Evaluation Question identified above (from your approved assessment plan): (C-12)
3a. Means of Unit Assessment & Criteria for Success:
3b: Summary of Assessment Data Collected:
3c. Use of Results to Improve Program/Unit Impact/Services:

Assessment Report Worksheet C
Directions & Recommendations for Development

#	Directions & Recommendations for Development
C-1	**[Name of Unit/Office/Program]**
C-2	**[Assessment Period Covered]** This refers to either section B-3 & B-4 and is a one year period – same as - same as B-2
C-3	**[Formative Assessment]** refers to if the program/project activities are being implemented as designed – this occurs during the first year of the agreed-upon timeline of the assessment cycle – same as B-3
C-4	**[Summative Assessment]** refers to if the desired outcomes/objectives were met – this occurs during the second year of the agreed-upon timeline of the assessment cycle – same as B-4
C-5	**[Submitted by & Date Submitted]** If required to submit, should be submitted by the program/office head and the date is the date submitted to the College/School Assessment Committee
C-6	**[Evaluation Question]** A separate sheet is required for each evaluation question. The evaluation questions are found in section B-11 of the assessment plan worksheet B.
C-7	**[First Means of Assessment]** This process is repeated as many times as needed to address all data sources or groupings of data sources. Note that these sections do not need to be detailed but summarize data, analysis and recommendations. Appendix may be included to support the analysis.
	C-8 **[Means of Unit Assessment & Criteria for Success]** This is primarily the data or grouping of data sources. Examples: a survey is given for customer satisfaction. The previous survey indicated a satisfaction rate of 75%. The criteria for success are set at maintaining the current rate. A portfolio is required of all education students with a standardized rubric used for scoring. A score of 3 might be required for satisfactory completion of the course/program outcomes.
	C-9 **[Summary of Assessment Data Collected]** This is a summary of the analysis of the data and a statement of if the data and if the criteria for success set forth in C-8 was achieved. Again, this section does not have to be extensive (details can be included as an attachment) but show summarized your analysis and if you met the established criteria for success. If you are using a rubric, you might show the distribution of scores. If you are using descriptive statistics, often a table will be appropriate showing the tabulation of the data. Survey data might be highlighted with detailed listing attached.
	C-10 **[Use of Results to Improve Program/Unit Impact/Services]** This section is the closing the loop of the continuous improvement cycle. Based on the summary of assessment data collected, was the expected improvement reached. Are the recommendations for future improvement based on the data and analysis presented?

Institutionalizing Assessment
Annual Progress Report *(Feb 2009)*

To establish a cycle for reporting plans, data collection, and closing the loop activities in order to track annually the status of assessment activities this form should be submitted to the respective administrator of the program unit, and then submitted to the Senior Vice President via the University Assessment Committee. These annual progress reports can be used by the program unit as part of its program review report that is scheduled every five years. The intent of the progress report is not only to specify assessment plans, but also to report the *implementation* of the plans to include data collection and closing the loop activities. The committee encourages you to provide copies of these progress reports to your college's AAC so that they will remain informed of the assessment activities. This form is designed to assist with the on-going assessment process and to dovetail with assessment reporting in the program review process.

Check one: ☐ Undergraduate Program ☐ Graduate Program ☐ GenEd ☐ Support Courses	
Program:	Submission Date:
Reporting Cycle Year: ☐ 1st Year ☐ 2nd Year ☐ Final Year	
Assessment Plan *(if previously submitted in a prior progress report, specify "previously submitted")* Specify expected student learning outcomes: Specify the tool(s) that will be used to measure student learning:	
Status of Data Collection:	
Assessment Report:	
Closing the Loop:	

NOTE: This form is designed to assist you with the on-going assessment process and to dovetail with assessment reporting in the program review process.

Appendix B - Developing Program Student Learning Outcomes

Developing appropriate program learning outcomes is an important first step in program assessment. Program outcomes guide curriculum development and review; in addition to being directly linked to institutional outcomes and the mission, values and goals of the college. Program outcomes should focus on what students will be able to know, do and value when they have finished the program. The outcomes must be measurable, meaning they describe behaviors that students can demonstrate.

Program learning outcomes are used for 3 reasons: 1) to narrow the scope of assessment, 2) to market the program and attract students, and 3) to meet accreditation standards. Following are a few things one should know about program learning outcomes (All material in this section from Mary Allen, Ph.D.)

Mission, Goals, and Outcomes

Mission: a holistic vision of the values and philosophy of the department

Goals: general statements about knowledge, skills, attitudes, and values expected in graduates

Outcomes: clear, concise statements that describe how students can demonstrate their mastery of program goals

Faculty need to first decide on a program mission and goals before developing appropriate program learning outcomes. The mission statement is a philosophical statement related to what your program intends to accomplish that is linked to the college's mission and strategic goal(s). You may want to review the dimensions of learning and college values and consult with key stakeholders as you write this. Program goals describe what the faculty want the students to know, be able to do and value once they have graduated from one of the College's programs. Learning outcomes describe how students can demonstrate that they have met these goals and are written in measurable terms.

Each program should have its own mission statement. An effective program mission statement should be linked to the College mission statement and be written in a language so that it can be understood by students and parents. A mission statement might provide:
* A brief history of the program and describe the philosophy of the program
* The types of students it serves
* The type of professional training it provides
* The relative emphasis on teaching , scholarship , and service
* Important characteristics of program graduates.

Example of a Mission Statement

"The mission of the College of Agriculture is to provide students with the educational experiences and environment that promote discipline competence; the capacity to attain career success in agriculture, food, or related professions; and a sense of civic responsibility." (University of Minnesota, from Diamond, *Designing & Assessing Courses & Curricula*, p. 72).

Program goals are broad statements concerning knowledge, skills, or values that faculty expect graduating students to achieve. They describe general expectations for students, and they should be linked to the program mission.

Examples of Program Goals

nowledge	• Students know basic biological principles and concepts. • Students understand the major theoretical approaches for explaining economic phenomena.
kill	• Students can use appropriate technology tools. • Students have effective interpersonal and leadership skills.
alue	• Students respect the professional code of ethics for pharmacy practice. • Students value the scientific approach to understanding natural phenomena.

Goals are too general to guide assessment and planning, so faculty develop learning outcomes to make the goals explicit. Learning outcomes describe, in concrete terms, what program goals mean. They describe observable behaviors that allow faculty to know if students have mastered the goals.

Program Learning Outcomes:

- Focus on what students will learn, rather than on what faculty will "cover."
- Describe how students can demonstrate that they have developed the knowledge, skills, and values that faculty want them to learn.
- Should be widely distributed – in the catalog, on the Web, in department newsletters, and on syllabi.
- Should be known by all major stakeholders, including regular and adjunct faculty, fieldwork supervisors, student support personnel, and students.
- Guide course and curriculum planning so that students experience a cohesive curriculum.
- Encourage students to be intentional learners who direct and monitor their own learning.
- Focus assessment efforts and faculty and staff conversations on student learning.

Examples of Learning Outcomes

- Students can analyze experimental results and draw reasonable conclusions from them.
- Students can provide counseling services to people who are different from themselves in gender, age, ethnicity, culture, sexual orientation, or other significant characteristics.
- Students can locate appropriate sources by searching electronic and traditional databases.
- Students follow professional ethical standards when they provide nursing care to patients.

- Students can analyze the quality of the argumentation provided in support of a position.
- Students can identify the major factors that influence a country's decision to declare war.
- Students can distinguish between science and pseudo-science.

Tips to Develop Program Goals and Outcomes

- Fill in the blanks. When students graduate from our program, they should know ____, be able to ____, and value ____.
- Consider two types of goals: those unique to the discipline and those that expand on general education outcomes, such as communication skills and information literacy.
- Review materials from similar programs and adapt relevant segments.
- Consider "best practices" guidelines from professional organizations or accrediting agencies and adapt these to your program.
- Try a "top-down" approach. Use documents that describe your program to identify your goals and outcomes. Examples of such resources are catalog copy, mission statements, program brochures, and accreditation reports.
- Try a "bottom-up" approach. Review instructional materials, such as syllabi, assignments, tests, and texts. Look for faculty expectations, either explicit or implicit, for knowledge, skills, and values that students are expected to develop.
- Ask for input from important stakeholders, such as students, alumni, and employers. What do they believe that students should know, do, or value by the end of the program?
- Describe the ideal graduate of your program. Ask these questions: "What does this person know? What can this person do? What does this person care about?"
- Involve as many of the program faculty as you can. Encourage faculty to explain and defend various perspectives, either anonymously or in open meetings.
- Do not avoid learning outcomes that appear to be difficult to assess, particularly if they are important outcomes. Focus on what faculty believe are the most important outcomes for students to achieve.

Possible Learning Goals

Institution-Wide Goals	Program-Specific Goals
• Breadth: Humanities, Social & Behavioral Sciences, Natural & Physical Sciences • Civic Responsibility, Values, and Ethics • Communication Skills • Computer Skills • Critical Thinking Skills and Habits • Global Awareness • Historic and Aesthetic Sensitivity • Information Literacy • Intellectual Flexibility • Interpersonal and Teamwork Skills • Knowledge Integration • Lifelong Learning Skills	• Understanding the theories, concepts, and research findings of the discipline. • Using appropriate methodologies to develop knowledge and to examine questions within the discipline. • Applying what was learned to relevant phenomena. • Being aware of ethical issues and adopting ethical standards within the discipline. • Being aware of and adopting major values that professionals within the discipline share.

• Multicultural Understanding • Problem-Solving Skills • Quantitative Skills	

Examples of Learning Outcomes at Various Levels

(Refer to Bloom's taxonomy in the "Focus on Learning" section of this handbook)

Level	Learning Outcome
Knowledge	Students can *list* the major theoretical approaches of the discipline.
Comprehension	Students can *describe* the key theories, concepts, and issues for each of the major theoretical approaches.
Application	Students can *apply* theoretical principles to solve real-world problems.
Analysis	Students can *analyze* the strengths and weaknesses of each of the major theoretical approaches for understanding specific phenomena.
Synthesis	Students can *combine* theoretical approaches to explain complex phenomena.
Evaluation	Students can *select* the theoretical approach that is most applicable to a phenomenon and *explain* why they have selected that perspective.

Effective program learning outcomes should:
- Use active verbs that specify definite, observable behaviors
- Identify the depth of processing that faculty expect
- Distinguish between absolute and value-added expectations

Absolute expectation – a specific level of competence required for student achievement. Ex. The student can graph linear equations.

Value added expectations – a student will make improvements in a certain area.
Ex. The students will improve their ability to graph linear equations.

How many Program Student Learning Outcomes are Appropriate?

Generally 3 – 5 program student learning outcomes are recommended. Programs should take into account the college's "Dimensions of Learning" and develop program outcomes for workplace readiness and general skills, content knowledge/discipline-specific knowledge and skills and "soft skills" (noncognitive skills). A similar approach is to develop program student learning outcomes based on what we want student to be able to "think, know and do". Programs may also want to develop program student learning outcomes for what student value.

Alignment of Course Student Learning Outcomes and Program Student Learning Outcomes

Student learning outcomes need to be aligned between course and program student learning outcomes. This exercise will help ensure that there is adequate instructional time and progression of learning for student to meet program learning outcomes. The grid will also provide assistance in determining the type of assessment and when it can be collected to determine student success against outcomes. Courses are identified that address where material is introduced (I), practiced with feedback (P) and where mastery of the outcome is demonstrated (D).

Course x Program Outcomes Alignment Matrix

Course	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5
100	I				I
101		I			P
102	P		P		P
103					P
200	P		P		
229					P
230			P		D
280					
290	D		D		D

I =Introduced, P = Practiced with Feedback, D =Demonstrated at the Mastery Level

Appendix C – Developing Evaluation Questions

The development of evaluation questions is a key part of the development of the evaluation plan. Evaluation questions define the purpose of the evaluation in response to improvement efforts. Generally the developing evaluation questions follow several steps.

- Identifying key stakeholders and audiences
- Formulating potential evaluation questions of interest to the stakeholders and audiences Defining outcomes in measurable terms
- Prioritizing and eliminating questions

Evaluation questions will vary depending on the phase of the program development, particular local circumstances, and the ultimate purpose of the evaluation. Some key issues you may consider in developing evaluation questions are:

- What do you want your program/unit/project to accomplish?
- How will you know if your have met your mission and reached your program/unit/project outcomes?
- What activities will your program/unit/project take to accomplish your goals?
- What factors might help or hinder your ability to accomplish your goals?
- What will you want to tell others who are interested in your program/unit/project?

Some characteristics of good evaluation questions:

- They are specific.
- They are measurable.
- They are answerable.
- They are realistic and reasonable (they do not state grandiose goals).
- They are appropriate to the local needs.
- At a secondary level, they can contribute to knowledge development (beyond the specific program).

Evaluation questions can be developed for both formative and summative evaluation. For formative program evaluation questions you may be looking at issues such as:

- Was training provided as planned?
- Are instructors receiving the training as intended?
- Are instructors employing the instructional strategies taught in training and integrating technology in the classroom?
- Were new instructional techniques and strategies incorporated into instructional delivery?

Summative evaluation questions focus on the outcome and impact of the program/unit/project. Examples of summative evaluation question follows:

- Did students develop an understanding of foundational science concepts?
- Do graduates of the program have workforce readiness skills?

- Were students who transferred to other IHEs able to function at the expected level?

The Kellogg Foundation makes a series recommendations for evaluation questions development.

• The particular philosophy of evaluation/research that you and your evaluation team members espouse will influence the questions you ask. Ask yourself and team members why you are asking the questions you are asking and what you might be missing.

• Different stakeholders will have different questions. Don't rely on one or two people (external evaluator or funder) to determine questions. Seek input from as many perspectives as possible to get a full picture before deciding on questions.

• There are many important questions to address. Stay focused on the primary purpose for your evaluation activities at a certain point in time and then work to prioritize which are the critical questions to address. Since evaluation will become an ongoing part of project management and delivery, you can periodically revisit your evaluation goals and questions and revise them as necessary.

• Examine the values embedded in the questions being asked. Whose values are they? How do other stakeholders, particularly project participants, think and feel about this set of values? Are there different or better questions the evaluation team members and other stakeholders could build consensus around?

Following are a series of generic worksheets that can be used in developing evaluation questions.

Worksheet 1: Identifying Key Stakeholders

Audience	Spokesperson	Identify the particular values, interests, expectations, etc., that may play a key role as criteria and in the analysis and interpretation stage of your evaluation

Worksheet 2: Program Mission and Objectives/Outcomes

1   What is the mission of the program?
2   What are the objectives/outcomes of your program/unit/project?
3   State the first objective/outcome to be evaluated.
4   Can this objective/outcome be broken down further? Break it down to the smallest unit. It must be clear what specifically you hope to see documented or changed.
5   Is this objective/outcome measurable (can indicators and standards be developed for it)? If not, restate it.
6   Formulate one or more questions that will yield information about the extent to which the objective/outcome was addressed.
7   Once you have completed the above steps, go back to #3 and write the next objective/outcome. Continue with steps 4, and 5, and *6.*

Worksheet 3: Stakeholder Interest in Potential Evaluation Questions

Question	Stakeholder Group(s)

Worksheet 4: Prioritize and Eliminate Questions

Take each question from worksheet 3 and apply criteria below.

Question	Which stakeholder(s)?	Importance to Stakeholders	New Data Collection?	Resources Required	Timeframe	Priority (High, Medium, Low, or Eliminate)
						H M L E
						H M L E
						H M L E

Appendix D - General Education Assessment

According to Mary Allen, California State University, Bakersfield, mallen@csub.edu, General Education Learning Outcomes should be consistent with campus mission, consistent with WASC expectations, and a reasonably short list of outcomes that faculty value-not just a master list of all the individual GE course learning outcomes.

GENERAL EDUCATION ASSESSMENT
WASC Rubric for Evaluating General Education Assessment Process

Criterion	Initial	Emerging	Developed	Highly Developed
GE Outcomes	GE learning outcomes have not yet been developed for the entire GE program; there may be one or two common ones, e.g., writing, critical thinking.	Learning outcomes have been developed for the entire GE program, but list is problematic (e.g. too long, too short, unconnected to mission and values). Outcomes do not lend themselves to demonstrations of student learning.	The list of outcomes is a well-organized set of reasonable outcomes that focus on the most important knowledge, skills, and values of the GE program. Outcomes express learning can be demonstrated. Work to define levels of performance is beginning.	The list of outcomes is reasonable and appropriate. Outcomes describe how students can demonstrate learning. Faculty have agreed on explicit criteria, such as rubrics, for assessing students' mastery and have identified exemplars of student performance at varying levels for each outcome.
Curriculum Alignment with Outcomes	There is no clear relationship between the outcomes and the GE curriculum. Students may not have opportunity to develop each outcome adequately.	Students appear to have reasonable opportunities to develop each of the GE outcomes. Curriculum map may indicate opportunities to acquire outcomes. Sequencing and frequency of opportunities may be problematic	The curriculum is explicitly designed to provide opportunities for students to learn and to develop increasing sophistication with respect to each outcome. Design may be summarized in a curriculum map that shows "beginning," "intermediate" and "advanced" treatment of outcomes.	GE curriculum, pedagogy, grading, advising, etc. explicitly aligned with GE outcomes. Curriculum map and rubrics in use well known and consistently used. Co-curriculum and relevant student support services are also viewed as resources for GE learning and aligned with GE outcomes.
Assessment Planning	There is no formal plan for assessing each GE outcome. There is no coordinator or committee that takes responsibility	GE assessment relies on short-term planning, such as selecting which outcome(s) to assess in the current year. Interpretation and use of	The campus has a reasonable, multi-year assessment plan that identifies when each GE outcome will be assessed. The plan includes specific	The campus has a fully articulated, sustainable, multi-year assessment plan that describes when and how each outcome will be assessed. A coordinator or committee leads

Criterion	Initial	Emerging	Developed	Highly Developed
	for the program or implementation of its assessment plan.	findings for improvement are implicit rather than planned or funded. There is no individual or committee "in charge."	mechanisms for interpretation and use of findings for improvement. A coordinator or committee is charged to oversee the program and its assessment.	review and revision of the plan, as needed, based on experience and feedback from internal & external reviewers. The campus uses some form of comparative data (e.g., own past record, aspirational goals, external benchmarking).

Assessment Implementation	It is not clear that potentially valid evidence for each GE outcome is collected and/or individual reviewers use idiosyncratic criteria to assess student work.	Appropriate evidence is collected and faculty have discussed relevant criteria for assessing each outcome. Reviewers of student work are calibrated to apply assessment criteria in the same way, and/ or faculty check for inter-rater reliability.	Appropriate evidence is collected and faculty use explicit criteria, such as rubrics, to assess student attainment of each outcome. Reviewers of student work are calibrated to apply assessment criteria in the same way, and faculty routinely check for inter-rater reliability.	Assessment criteria, such as rubrics, have been pilot-tested and refined over time; and they usually are shared with students. Reviewers of student work are calibrated, and faculty routinely find high inter-rater reliability. Faculty take comparative data into account when interpreting results and deciding on changes to improve learning.
Use of Results	Results for GE outcomes are collected, but relevant faculty do not discuss them. There is little or no collective use of findings. Students are unaware of, uninvolved in the process.	Results for each GE outcome are collected and discussed by relevant faculty; results have been used occasionally to improve the GE program. Students are vaguely aware of outcomes and assessments to improve their learning.	Results for each outcome are collected, discussed by relevant faculty and others, and regularly used to improve the GE program. Students are very aware of and engaged in improvement of their GE learning.	Relevant faculty routinely discuss results, plan improvements, secure necessary resources, and implement changes. They may collaborate with others, such as librarians, student affairs professionals, students, to improve the program. Follow-up studies confirm that changes have improved learning.

How Visiting Team Members Can Use the GE Assessment Rubric

Conclusions should be based on review of the GE program's written assessment record and discussion with relevant campus representatives (e.g., GE chair, GE Assessment Coordinator, faculty who teach GE courses). Discussion should validate that the reality matches the written record.

The rubric has five major dimensions:

1. **GE Outcomes**. The set of GE learning outcomes should be a comprehensive list of the most important knowledge, skills, and values students learn in the GE program. There is no strict rule concerning the optimum number of outcomes, but quality is more important than quantity. Faculty should not confuse learning processes (e.g., completing a science lab) with learning outcomes (what is learned in the science lab, such as ability to apply the scientific method). Outcome statements should specify what students do to demonstrate their learning. For example, an outcome might state that "Students who complete the GE program can explain major concepts and theories in at least two social science disciplines." This outcome is assessable because faculty can rate the quality of students' explanations. Criteria for assessing student work usually are specified in rubrics, and faculty should identify examples of varying levels of student performance, such as work that does not meet expectations, that meets expectations, and exceeds expectations. Questions. Is the list of outcomes reasonable and appropriate? Do the outcomes express how students can demonstrate learning? Have faculty agreed on explicit criteria, such as rubrics, for assessing each outcome? Do they have exemplars of work representing different levels of mastery for each outcome?

2. **Curriculum Alignment**. Students cannot be held responsible for mastering learning outcomes unless the GE program systematically supports their development. The GE curriculum should be explicitly designed to provide opportunities for students to develop increasing sophistication with respect to each outcome. This design often is summarized in a curriculum map—a matrix that shows the relationship between GE courses and GE learning outcomes. Pedagogy and grading should align with outcomes to foster growth and provide students helpful feedback on their development. Relevant student services (e.g., advising and tutoring centers) and the co-curriculum (e.g., student clubs and campus events) should also be designed to support development of the learning outcomes, since learning occurs outside the classroom as well as within it. Questions. Is the GE curriculum explicitly aligned with program outcomes? Do faculty select effective pedagogies and use grading to promote learning? Are student support services and the co-curriculum explicitly aligned to promote student development of GE learning outcomes?

3. **Assessment Planning**. Faculty should develop explicit, sustainable plans for assessing each GE outcome. They need not assess every outcome every year, but they should have a plan to cycle through the outcomes over a reasonable period of time, such as the period for program review cycles. Experience and feedback from external reviewers should guide plan revision. Questions. Does the campus have a GE assessment plan? Does the plan clarify when, how, and how often each outcome will be assessed? Will all outcomes be assessed over a reasonable period of time? Is the plan sustainable? Supported by appropriate resources? Are plans revised, as needed, based on experience and feedback from external reviewers? Does the plan include collection of comparative data?

4. **Assessment Implementation**. GE assessment data should be valid and reliable. A valid assessment of a particular outcome leads to accurate conclusions concerning students' achievement of that outcome. Sometimes campuses collect assessment data that do not have the potential to be valid. For example, a multiple-choice test may not collect information that allows faculty to make judgments about students' ability to explain phenomena. Assessment requires the collection of valid evidence and judgments about that evidence that are based on agreed-upon criteria that specify how to identify work that meets or exceeds expectations. These

criteria usually are specified in rubrics. Well-qualified judges should reach the same conclusions about individual student's achievement of a learning outcome, demonstrating inter-rater reliability. If two judges independently assess a set of materials, their ratings can be correlated. Sometimes a discrepancy index is used. How often do the two raters give identical ratings, ratings one point apart, ratings two points apart, etc.? Data are reliable if the correlation is high and/or if the discrepancies are small. Raters generally are calibrated ("normed") to increase reliability. Calibration usually involves a training session in which raters apply rubrics to pre-selected examples of student work that vary in quality; then they reach consensus about the rating each example should receive. The purpose is to ensure that all raters apply the criteria in the same way so that each student's product would receive the same score, regardless of rater. Faculty may take external benchmarking data or other comparative data into account when interpreting results. <u>Questions</u>: Do GE assessment studies systematically collect valid evidence for each targeted outcome? Do faculty use agreed-upon criteria such as rubrics for assessing the evidence for each outcome? Do they share the criteria with their students? Are those who assess student work calibrated in the use of assessment criteria? Does the campus routinely document high inter-rater reliability? Do faculty pilot test and refine their assessment processes? Do they take external benchmarking (comparison) data into account when interpreting results?

5. Use of Results. Assessment is a process designed to monitor and improve learning, so assessment findings should have an impact. Faculty should reflect on results for each outcome and decide if they are acceptable or disappointing. If results do not meet faculty standards, faculty (and others, such as student affairs personnel, librarians, tutors) should determine which changes should be made, e.g., in pedagogy, curriculum, student support, or faculty support. <u>Questions</u>: Do faculty collect assessment results, discuss them, and reach conclusions about student achievement? Do they develop explicit plans to improve student learning? Do they implement those plans? Do they have a history of securing necessary resources to support this implementation? Do they collaborate with other campus professionals to improve student learning? Do follow-up studies confirm that changes have improved learning?

Rubric for Assessing the Quality of Academic Program Learning Outcomes

Criterion	Initial	Emerging	Developed	Highly Developed
Comprehensive List	The list of outcomes is problematic: e.g., very incomplete, overly detailed, inappropriate, disorganized. It may include only discipline-specific learning, ignoring relevant institution-wide learning. The list may confuse learning processes (e.g., doing an internship) with learning outcomes (e.g., application of theory to real-world problems).	The list includes reasonable outcomes but does not specify expectations for the program as a whole. Relevant institution-wide learning outcomes and/or national disciplinary standards may be ignored. Distinctions between expectations for undergraduate and graduate programs may be unclear.	The list is a well-organized set of reasonable outcomes that focus on the key knowledge, skills, and values students learn in the program. It includes relevant institution-wide outcomes (e.g., communication or critical thinking skills). Outcomes are appropriate for the level (undergraduate vs. graduate); national disciplinary standards have been considered.	The list is reasonable, appropriate, and comprehensive, with clear distinctions between undergraduate and graduate expectations, if applicable. National disciplinary standards have been considered. Faculty have agreed on explicit criteria for assessing students' level of mastery of each outcome.
Assessable Outcomes	Outcome statements do not identify what students can do to demonstrate learning. Statements such as "Students understand scientific method" do not specify how understanding can be demonstrated and assessed.	Most of the outcomes indicate how students can demonstrate their learning.	Each outcome describes how students can demonstrate learning, e.g., "Graduates can write reports in APA style" or "Graduates can make original contributions to biological knowledge."	Outcomes describe how students can demonstrate their learning. Faculty have agreed on explicit criteria statements, such as rubrics, and have identified examples of student performance at varying levels for each outcome.
Alignment	There is no clear relationship between the outcomes and the curriculum that students experience.	Students appear to be given reasonable opportunities to develop the outcomes in the required curriculum.	The curriculum is designed to provide opportunities for students to learn and to develop increasing sophistication with respect to each outcome. This design may be summarized in a curriculum map.	Pedagogy, grading, the curriculum, relevant student support services, and co-curriculum are explicitly and intentionally aligned with each outcome. Curriculum map indicates increasing levels of proficiency.
Assessment Planning	There is no formal plan for assessing each outcome.	The program relies on short-term planning, such as selecting which outcome(s) to assess in the current year.	The program has a reasonable, multi-year assessment plan that identifies when each outcome will be assessed. The plan may explicitly include analysis and implementation of improvements.	The program has a fully-articulated, sustainable, multi-year assessment plan that describes when and how each outcome will be assessed and how improvements based on findings will be implemented. The plan is routinely examined and revised, as needed.
The Student Experience	Students know little or nothing about the overall outcomes of the program. Communication of outcomes to students, e.g. in syllabi or catalog, is spotty or nonexistent.	Students have some knowledge of program outcomes. Communication is occasional and informal, left to individual faculty or advisors.	Students have a good grasp of program outcomes. They may use them to guide their own learning. Outcomes are included in most syllabi and are readily available in the catalog, on the web page, and elsewhere.	Students are well-acquainted with program outcomes and may participate in creation and use of rubrics. They are skilled at self-assessing in relation to the outcomes and levels of performance. Program policy calls for inclusion of outcomes in all course syllabi, and they are readily available in other program documents.

How Visiting Team Members Can Use the Learning Outcomes Rubric

Conclusions should be based on a review of learning outcomes and assessment plans. Although you can make some preliminary judgments about alignment based on examining the curriculum or a curriculum map, you will have to interview key departmental representatives, such as department chairs, faculty, and students, to fully evaluate the alignment of the learning environment with the outcomes.

The rubric has five major dimensions:

1. **Comprehensive List**. The set of program learning outcomes should be a short but comprehensive list of the most important knowledge, skills, and values students learn in the program, including relevant institution-wide outcomes such as those dealing with communication skills, critical thinking, or information literacy. Faculty generally should expect higher levels of sophistication for graduate programs than for undergraduate programs, and they should consider national disciplinary standards when developing and refining their outcomes, if available. There is no strict rule concerning the optimum number of outcomes, but quality is more important than quantity. Faculty should not confuse learning processes (e.g., completing an internship) with learning outcomes (what is learned in the internship, such as application of theory to real-world practice). Questions. Is the list reasonable, appropriate and well-organized? Are relevant institution-wide outcomes, such as information literacy, included? Are distinctions between undergraduate and graduate outcomes clear? Have national disciplinary standards been considered when developing and refining the outcomes? Are explicit criteria – as defined in a rubric, for example – available for each outcome?

2. **Assessable Outcomes**. Outcome statements should specify what students can do to demonstrate their learning. For example, an outcome might state that "Graduates of our program can collaborate effectively to reach a common goal" or that "Graduates of our program can design research studies to test theories and examine issues relevant to our discipline." These outcomes are assessable because faculty can observe the quality of collaboration in teams, and they can review the quality of student-created research designs. Criteria for assessing student products or behaviors usually are specified in rubrics, and the department should develop examples of varying levels of student performance (i.e., work that does not meet expectations, meets expectations, and exceeds expectations) to illustrate levels. Questions. Do the outcomes clarify how students can demonstrate learning? Have the faculty agreed on explicit criteria, such as rubrics, for assessing each outcome? Do they have examples of work representing different levels of mastery for each outcome?

3. **Alignment**. Students cannot be held responsible for mastering learning outcomes unless they have participated in a program that systematically supports their development. The curriculum should be explicitly designed to provide opportunities for students to develop increasing sophistication with respect to each outcome. This design often is summarized in a curriculum map—a matrix that shows the relationship between courses in the required curriculum and the program's learning outcomes. Pedagogy and grading should be aligned with outcomes to foster and encourage student growth and to provide students helpful feedback on their development. Since learning occurs within and outside the classroom, relevant student services (e.g., advising and tutoring centers) and co-curriculum (e.g., student clubs and campus events) should be designed to support the outcomes. Questions. Is the curriculum explicitly aligned with the program outcomes? Do faculty select effective pedagogy and use grading to promote learning? Are student support services and the co-curriculum explicitly aligned to promote student development of the learning outcomes?

4. **Assessment Planning**. Faculty should develop explicit plans for assessing each outcome. Programs need not assess every outcome every year, but faculty should have a plan to cycle through the outcomes over a reasonable period of time, such as the period for program review cycles. Questions. Does the plan clarify when, how, and how often each outcome will be assessed? Will all outcomes be assessed over a reasonable period of time? Is the plan sustainable, in terms of human, fiscal, and other resources? Are assessment plans revised, as needed?

5. **The Student Experience**. At a minimum, students should be aware of the learning outcomes of the program(s) in which they are enrolled; ideally, they should be included as partners in defining and applying the outcomes and the criteria for levels of sophistication. Thus it is essential to communicate learning outcomes to students consistently and meaningfully. Questions: Are the outcomes communicated to students? Do students understand what the outcomes mean and how they can further their own learning? Do students use the outcomes and criteria to self-assess? Do they participate in reviews of outcomes, criteria, curriculum design, or related activities?

Rubric for Assessing the Use of Portfolios for Assessing Program Outcomes

Criterion	Initial	Emerging	Developed	Highly Developed
Clarification of Students' Task	Instructions to students for portfolio development provide insufficient detail for them to know what faculty expect. Instructions may not identify outcomes to be addressed in the portfolio.	Students receive some written instructions for their portfolios, but they still have problems determining what is required of them and/or why they are compiling a portfolio.	Students receive written instructions that describe faculty expectations in detail and include the purpose of the portfolio, types of evidence to include, role of the reflective essay (if required), and format of the finished product.	Students in the program understand the portfolio requirement and the rationale for it, and they view the portfolio as helping them develop self-assessment skills. Faculty may monitor the developing portfolio to provide formative feedback and/or advise individual students.
Valid Results	It is not clear that valid evidence for each relevant outcome is collected and/or individual reviewers use idiosyncratic criteria to assess student work.	Appropriate evidence is collected for each outcome, and faculty have discussed relevant criteria for assessing each outcome.	Appropriate evidence is collected for each outcome; faculty use explicit criteria, such as agreed-upon rubrics, to assess student attainment of each outcome. Rubrics are usually shared with students.	Assessment criteria, e.g., in the form of rubrics, have been pilot-tested and refined over time; they are shared with students, and student may have helped develop them. Feedback from external reviewers has led to refinements in the assessment process. The department also uses external benchmarking data.
Reliable Results	Those who review student work are not calibrated to apply assessment criteria in the same way, and there are no checks for inter-rater reliability.	Reviewers are calibrated to apply assessment criteria in the same way or faculty routinely check for inter-rater reliability.	Reviewers are calibrated to apply assessment criteria in the same way, and faculty routinely check for inter-rater reliability.	Reviewers are calibrated; faculty routinely find that assessment data have high inter-rater reliability.
Results Are Used	Results for each outcome are collected, but they are not discussed among the faculty.	Results for each outcome are collected and discussed by the faculty, but results have not been used to improve the program.	Results for each outcome are collected, discussed by faculty, and used to improve the program.	Faculty routinely discuss results, plan needed changes, secure necessary resources, and implement changes. They may collaborate with others, such as librarians or Student Affairs professionals, to improve student learning. Students may also participate in discussions and/or receive feedback, either individual or in the aggregate. Follow-up studies confirm that changes have improved learning.
If e-Portfolios Are Used	There is no technical support for students or faculty to learn the software or to deal with problems.	There is informal or minimal formal support for students and faculty.	Formal technical support is readily available and proactively assists in learning the software and solving problems.	Support is readily available, proactive, and effective. Tech support personnel may also participate in refining the overall portfolio process.

How Visiting Team Members Can Use the Portfolio Rubric

Portfolios can serve many purposes besides assessment; in fact, these other purposes are actually much more common. Portfolios may be compiled so students can share their work with family and friends. They may be designed to build students' confidence by showing development over time or by displaying best work. They may be used for advising and career counseling, or so students can show their work during a job interview. The first thing a team needs to do is determine that the portfolios are used for *assessment*, and not for another purpose.

Conclusions about the quality of the assessment process should be based on discussion with relevant department members (e.g., chair, assessment coordinator, faculty, students) and a review of the program's written portfolio assignment. Two common types of portfolios are:
- Showcase portfolios—collections of each student's best work
- Developmental portfolios—collections of work from early, middle, and late stages in the student's academic career that demonstrate growth

Faculty generally require students to include a reflective essay that describes how the evidence in the portfolio demonstrates their achievement of program learning outcomes. Sometimes faculty monitor developing portfolios to provide formative feedback and/or advising to students, and sometimes they collect portfolios only as students near graduation. Portfolio assignments should clarify the purpose of the portfolio, what kinds of evidence should be included, and the format (e.g., paper vs. e-portfolios); and students should view the portfolio as contributing to their personal development.

The rubric has five major dimensions and a fifth dimension limited to e-portfolios:

1. **Clarification of Students' Task**. Most students have never created a portfolio, and they need explicit guidance. Questions. Does the portfolio assignment provide sufficient detail so students understand the purpose, the types of evidence to include, the learning outcomes to address, the role of the reflective essay (if any), and the required format? Do students view the portfolio as contributing to their ability to self-assess? Do faculty use the developing portfolios to assist individual students?

2. **Valid Results**. Sometimes portfolios lack valid evidence for assessing particular outcomes. For example, portfolios may not allow faculty to assess how well students can deliver oral presentations. Judgments about that evidence need to be based on well-established, agreed-upon criteria that specify (usually in rubrics) how to identify work that meets or exceeds expectations. Questions: Do the portfolios systematically include valid evidence for each targeted outcome? Are faculty using well-established, agreed-upon criteria, such as rubrics, to assess the evidence for each outcome? Have faculty pilot tested and refined their process? Are criteria shared with students? Are they collaborating with colleagues at other institutions to secure benchmarking (comparison) data?

3. **Reliable Results**. Well-qualified judges should reach the same conclusions about a student's achievement of a learning outcome, demonstrating inter-rater reliability. If two judges independently assess a set of materials, their ratings can be correlated. Sometimes a discrepancy index is used. How often do the two raters give identical ratings, ratings one point apart, ratings two points apart, etc.? Data are reliable if the correlation is high and/or if discrepancies are small. Raters generally are calibrated ("normed") to increase reliability. Calibration usually involves a training session in which raters apply rubrics to pre-selected examples of student work that vary in quality, then reach consensus about the rating each example should receive. The purpose is to ensure that all raters apply the criteria in the same way so that each student's product would receive the same score, regardless of rater. Questions: Are reviewers calibrated? Are checks for inter-rater reliability made? Is there evidence of high inter-rater reliability?

4. **Results Are Used**. Assessment is a process designed to monitor and improve learning, so assessment findings should have an impact. Faculty should reflect on results for each outcome and decide if they are acceptable or disappointing. If results do not meet their standards, faculty should determine what changes should be made, e.g., in pedagogy, curriculum, student support, or faculty support. Questions: Do faculty collect assessment results, discuss them, and reach conclusions about student achievement? Do they develop explicit plans to improve student learning? Do they implement those plans? Do they have a history of securing necessary resources to support this implementation? Do they collaborate with other campus professionals to improve student learning? Do follow-up studies confirm that changes have improved learning?

5. **If e-Portfolios Are Used.** Faculty and students alike require support, especially when a new software program is introduced. Lack of support can lead to frustration and failure of the process. Support personnel may also have useful insights into how the portfolio assessment process can be refined. Questions: What is the quality and extent of technical support? Of inclusion in review and refinement of the portfolio process? What is the overall level of faculty and student satisfaction with the technology and support services?

Rubric for Assessing the Use of Capstone Experiences for Assessing Program Outcomes

Criterion	Initial	Emerging	Developed	Highly Developed
Relevant Outcomes and Lines of Evidence Identified	It is not clear which program outcomes will be assessed in the capstone course.	The relevant outcomes are identified, e.g., ability to integrate knowledge to solve complex problems; however, concrete plans for collecting evidence for each outcome have not been developed.	Relevant outcomes are identified. Concrete plans for collecting evidence for each outcome are agreed upon and used routinely by faculty who staff the capstone course.	Relevant evidence is collected; faculty have agreed on explicit criteria statements, e.g., rubrics, and have identified examples of student performance at varying levels of mastery for each relevant outcome.
Valid Results	It is not clear that potentially valid evidence for each relevant outcome is collected and/or individual faculty use idiosyncratic criteria to assess student work or performances.	Faculty have reached general agreement on the types of evidence to be collected for each outcome; they have discussed relevant criteria for assessing each outcome but these are not yet fully defined.	Faculty have agreed on concrete plans for collecting relevant evidence for each outcome. Explicit criteria, e.g., rubrics, have been developed to assess the level of student attainment of each outcome.	Assessment criteria, such as rubrics, have been pilot-tested and refined over time; they usually are shared with students. Feedback from external reviewers has led to refinements in the assessment process, and the department uses external benchmarking data.
Reliable Results	Those who review student work are not calibrated to apply assessment criteria in the same way; there are no checks for inter-rater reliability.	Reviewers are calibrated to apply assessment criteria in the same way or faculty routinely check for inter-rater reliability.	Reviewers are calibrated to apply assessment criteria in the same way, and faculty routinely check for inter-rater reliability.	Reviewers are calibrated, and faculty routinely find assessment data have high inter-rater reliability.
Results Are Used	Results for each outcome may or may not be are collected. They are not discussed among faculty.	Results for each outcome are collected and may be discussed by the faculty, but results have not been used to improve the program.	Results for each outcome are collected, discussed by faculty, analyzed, and used to improve the program.	Faculty routinely discuss results, plan needed changes, secure necessary resources, and implement changes. They may collaborate with others, such as librarians or Student Affairs professionals, to improve results. Follow-up studies confirm that changes have improved learning.
The Student Experience	Students know little or nothing about the purpose of the capstone or outcomes to be assessed. It is just another course or requirement.	Students have some knowledge of the purpose and outcomes of the capstone. Communication is occasional, informal, left to individual faculty or advisors.	Students have a good grasp of purpose and outcomes of the capstone and embrace it as a learning opportunity. Information is readily avail-able in advising guides, etc.	Students are well-acquainted with purpose and outcomes of the capstone and embrace it. They may participate in refining the experience, outcomes, and rubrics. Information is readily available.

<u>**How Visiting Team Members Can Use the Capstone Rubric**</u>

Conclusions should be based on discussion with relevant department members (e.g., chair, assessment coordinator, faculty). A variety of capstone experiences can be used to collect assessment data, such as:

- courses, such as senior seminars, in which advanced students are required to consider the discipline broadly and integrate what they have learned in the curriculum
- specialized, advanced courses
- advanced-level projects conducted under the guidance of a faculty member or committee, such as research projects, theses, or dissertations
- advanced-level internships or practica, e.g., at the end of an MBA program

Assessment data for a variety of outcomes can be collected in such courses, particularly outcomes related to integrating and applying the discipline, information literacy, critical thinking, and research and communication skills.

The rubric has five major dimensions:

1. **Relevant Outcomes and Evidence Identified**. It is likely that not all program learning outcomes can be assessed within a single capstone course or experience. <u>Questions</u>: Have faculty explicitly determined which program outcomes will be assessed in the capstone? Have they agreed on concrete plans for collecting evidence relevant to each targeted outcome? Have they agreed on explicit criteria, such as rubrics, for assessing the evidence? Have they identified examples of student performance for each outcome at varying performance levels (e.g., below expectations, meeting, exceeding expectations for graduation)?

2. **Valid Results**. A valid assessment of a particular outcome leads to accurate conclusions concerning students' achievement of that outcome. Sometimes faculty collect evidence that does not have the potential to provide valid conclusions. For example, a multiple-choice test will not provide evidence of students' ability to deliver effective oral presentations. Assessment requires the collection of valid evidence and judgments about that evidence that are based on well-established, agreed-upon criteria that specify how to identify low, medium, or high-quality work. <u>Questions</u>: Are faculty collecting valid evidence for each targeted outcome? Are they using well-established, agreed-upon criteria, such as rubrics, for assessing the evidence for each outcome? Have faculty pilot tested and refined their process based on experience and feedback from external reviewers? Are they sharing the criteria with their students? Are they using benchmarking (comparison) data?

3. **Reliable Results**. Well-qualified judges should reach the same conclusions about individual student's achievement of a learning outcome, demonstrating inter-rater reliability. If two judges independently assess a set of materials, their ratings can be correlated. Sometimes a discrepancy index is used. How often do the two raters give identical ratings, ratings one point apart, ratings two points apart, etc.? Data are reliable if the correlation is high and/or if the discrepancies are small. Raters generally are calibrated ("normed") to increase reliability. Calibration usually involves a training session in which raters apply rubrics to pre-selected examples of student work that vary in quality, then reach consensus about the rating each example should receive. The purpose is to ensure that all raters apply the criteria in the same way so that each student's product receives the same score, regardless of rater. <u>Questions</u>: Are reviewers calibrated? Are checks for inter-rater reliability made? Is there evidence of high inter-rater reliability?

4. **Results Are Used**. Assessment is a process designed to monitor and improve learning, so assessment findings should have an impact. Faculty should reflect on results for each outcome and decide if they are acceptable or disappointing. If results do not meet faculty standards, faculty should determine which changes should be made, e.g., in pedagogy, curriculum, student support, or faculty support. <u>Questions</u>: Do faculty collect assessment results, discuss them, and reach conclusions about student achievement? Do they develop explicit plans to improve student learning? Do they implement those plans? Do they have a history of securing necessary resources to support this implementation? Do they collaborate with other campus professionals to improve student learning? Do follow-up studies confirm that changes have improved learning?

5. **The Student Experience**. Students should understand the purposes different educational experiences serve in promoting their learning and development and know how to take advantage of them; ideally they should also participate in shaping those experiences. Thus it is essential to communicate to students consistently and include them meaningfully. <u>Questions</u>: Are purposes and outcomes communicated to students? Do they understand how capstones support learning? Do they participate in reviews of the capstone experience, its outcomes, criteria, or related activities?

Rubric for Assessing the Integration of Student Learning Assessment into Program Reviews

Criterion	Initial	Emerging	Developed	Highly Developed
Required Elements of the Self-Study	Program faculty may be required to provide a list of program-level student learning outcomes.	Faculty are required to provide the program's student learning outcomes and summarize annual assessment findings.	Faculty are required to provide the program's student learning outcomes, annual assessment studies, findings, and resulting changes. They may be required to submit a plan for the next cycle of assessment studies.	Faculty are required to evaluate the program's student learning outcomes, annual assessment findings, bench-marking results, subsequent changes, and evidence concerning the impact of these changes. They present a plan for the next cycle of assessment studies.
Process of Review	Internal and external reviewers do not address evidence concerning the quality of student learning in the program other than grades.	Internal and external reviewers address indirect and possibly direct evidence of student learning in the program; they do so at the descriptive level, rather than providing an evaluation.	Internal and external reviewers analyze direct and indirect evidence of student learning in the program and offer evaluative feedback and suggestions for improvement. They have sufficient expertise to evaluate program efforts; departments use the feedback to improve their work.	Well-qualified internal and external reviewers evaluate the program's learning outcomes, assessment plan, evidence, benchmarking results, and assessment impact. They give evaluative feedback and suggestions for improve-ment. The department uses the feedback to improve student learning.
Planning and Budgeting	The campus has not integrated program reviews into planning and budgeting processes.	The campus has attempted to integrate program reviews into planning and budgeting processes, but with limited success.	The campus generally integrates program reviews into planning and budgeting processes, but not through a formal process.	The campus systematically integrates program reviews into planning and budgeting processes, e.g., through negotiating formal action plans with mutually agreed-upon commitments.
Annual Feedback on Assessment Efforts	No individual or committee on campus provides feedback to departments on the quality of their outcomes, assessment plans, assessment studies, impact, etc.	An individual or committee occasionally provides feedback on the quality of outcomes, assessment plans, assessment studies, etc.	A well-qualified individual or committee provides annual feedback on the quality of outcomes, assessment plans, assessment studies, etc. Departments use the feedback to improve their work.	A well-qualified individual or committee provides annual feedback on the quality of outcomes, assessment plans, assessment studies, benchmarking results, and assessment impact. Departments effectively use the feedback to improve student learning. Follow-up activities enjoy institutional support
The Student Experience	Students are unaware of and uninvolved in program review.	Program review may include focus groups or conversations with students to follow up on results of surveys	The internal and external reviewers examine samples of student work, e.g., sample papers, portfolios and capstone projects. Students may be invited to discuss what they learned and how they learned it.	Students are respected partners in the program review process. They may offer poster sessions on their work, demon-strate how they apply rubrics to self-assess, and/or provide their own evaluative feedback.

How Visiting Team Members Can Use the Program Review Rubric
Conclusions should be based on a review of program-review documents and discussion with relevant campus representatives, such as department chairs, deans, and program review committees.
The rubric has five major dimensions:

1. **Self-Study Requirements**. The campus should have explicit requirements for the program's self-study, including an analysis of the program's learning outcomes and a review of the annual assessment studies conducted since the last program review. Faculty preparing the self-study should reflect on the accumulating results and their impact; and they should plan for the next cycle of assessment studies. As much as possible, programs should benchmark findings against similar programs on other campuses. Questions: Does the campus require self-studies that include an analysis of the program's learning outcomes, assessment studies, assessment results, benchmarking results, and assessment impact, including the impact of changes made in response to earlier studies? Does the campus require an updated assessment plan for the subsequent years before the next program review?

2. **Self-Study Review**. Internal reviewers (on-campus individuals, such as deans and program review committee members) and external reviewers (off-campus individuals, usually disciplinary experts) should evaluate the program's learning outcomes, assessment plan, assessment evidence, benchmarking results, and assessment impact; and they should provide evaluative feedback and suggestions for improvement. Questions: Who reviews the self-studies? Do they have the training or expertise to provide effective feedback? Do they routinely evaluate the program's learning outcomes, assessment plan, assessment evidence, benchmarking results, and assessment impact? Do they provide suggestions for improvement? Do departments effectively use this feedback to improve student learning?

3. **Planning and Budgeting**. Program reviews should not be *pro forma* exercises; they should be tied to planning and budgeting processes, with expectations that increased support will lead to increased effectiveness, such as improving student learning and retention rates. Questions. Does the campus systematically integrate program reviews into planning and budgeting processes? Are expectations established for the impact of planned changes?

4. **Annual Feedback on Assessment Efforts**. Campuses moving into the culture of evidence often find considerable variation in the quality of assessment efforts across programs, and waiting for years to provide feedback to improve the assessment process is unlikely to lead to effective campus practices. While program reviews encourage departments to reflect on multi-year assessment results, some programs are likely to require more immediate feedback, usually based on a required, annual assessment report. This feedback might be provided by an Assessment Director or Committee, relevant Dean or Associate Dean, or others; and whoever has this responsibility should have the expertise to provide quality feedback. Questions: Does someone have the responsibility for providing annual feedback on the assessment process? Does this person or team have the expertise to provide effective feedback? Does this person or team routinely provide feedback on the quality of outcomes, assessment plans, assessment studies, benchmarking results, and assessment impact? Do departments effectively use this feedback to improve student learning?

5. **The Student Experience**. Students have a unique perspective on a given program of study: they know better than anyone what it means to go through it as a student. Program review should take advantage of that perspective and build it into the review. Questions: Are students aware of the purpose and value of program review? Are they involved in preparations and the self-study? Do they have an opportunity to interact with internal or external reviewers, demonstrate and interpret their learning, and provide evaluative feedback?

Appendix E ─ An Example of an Analytic Rubric for Scoring Essays

Scoring the COMET essay

	COMET Sub-Test 3 (Writing) Analytic Scale [Essay rubric]
	Syntax
5	Grammar and word order nearly perfect.
4	Some errors of grammar or word order but communication not impaired.
3	Errors of grammar or word order fairly frequent; occasional re-reading necessary for full comprehension.
2	Errors of grammar or word order frequent; efforts of interpretation sometimes required on reader's part.
1	Errors of grammar or word order very frequent; reader often has to rely on own interpretation.
0	Errors of grammar or word order so severe as to make comprehension virtually impossible.
	Vocabulary
5	Wide and correctly used vocabulary.
4	Occasionally uses inappropriate terms or relies on circumlocution; expression of ideas not impaired.
3	Uses wrong or inappropriate words fairly frequently; expression of ideas may be limited because of inadequate vocabulary.
2	Limited vocabulary and frequent errors clearly hinder expression of ideas.
1	Vocabulary so limited and so frequently misused that reader must often rely on own interpretation.
0	Vocabulary limitations so extreme as to make comprehension virtually impossible.
	Organization
5	Extremely well organized.
4	Material fairly well organized; links could occasionally be clearer but communication not impaired.
3	Some lack of organization; re-reading required for clarification of ideas.
2	Little or no attempt at connectivity, though reader can deduce some organization.
1	Individual ideas may be clear, but very difficult to deduce connection between them.
0	Lack of organization so severe that communication is seriously impaired.

	Cohesion
5	Strong cohesion with smooth transitions both within and between paragraphs.
4	Occasional lack of consistency in choice of cohesive structures and vocabulary but overall ease of communication not impaired.
3	'Patchy', with some cohesive structures or vocabulary items noticeably inappropriate to general style.
2	Cohesive structures or vocabulary items sometimes not only inappropriate but also misused; little sense of ease of communication.
1	Communication often impaired by completely inappropriate or misused cohesive structures or vocabulary items.
0	A 'hotchpotch' of half-learned misused cohesive structures and vocabulary items rendering communication almost impossible.
	Content
5	Full and complete answer, inclusive of all parts of the task.
4	Relevant and adequate answer to the task set.
3	For the most part answers the task set, though there may be some gaps or redundant information.
2	Answer of limited relevance to the task set. Possibly major gaps in treatment of topic and/or pointless repetition.
1	Answer bears little relation to the task set.
0	No evidence of assigned task. (If it is obvious that the student wrote on an unrelated topic give a zero for the content but mark the essay for syntax, vocabulary, cohesion, and organization. If there is found to be evidence that the essay is a "canned" or "memorized" essay, then the essay receives a zero on all metrics.)

Appendix F – Examples of UOG Assessment Reports at the Program Level

University of Guam
School of Education

Institutional Report for
National Council for the Accreditation of
Teacher Education
(NCATE)

Focused Visit on Assessment

Spring 2009

A. Institution

Overview

1. What is the institution's historical context?

The University's history dates back to June 1952, when the island government established the Territorial College of Guam as a two-year teacher-training school under the Department of Education. The College, located on a high school campus in the village of Mongmong, had an initial enrollment of approximately 200 students; most of them experienced teachers, and a staff of 13.

The College moved to the present campus in central Mangilao in 1960 where a two-story classroom building and a library had been erected. The College's academic programs expanded to accommodate increasing enrollment and student needs.

In 1963, administrative control of the College was transferred from the Department of Education to a five-member governing Board of Regents. Accreditation was first granted in 1963 as a four-year degree-granting institution and again in 1965. A plan for the establishment of three undergraduate schools was implemented in the fall of 1967. The following year, on August 12, l968—four months after its accreditation was extended to the maximum five-year period—the College was renamed the "University of Guam" by an Act of the Legislature.

Enrollment in the fall of 1968 reached 1,800. Staff and faculty totaled more than 130. Additions to the campus included a new library, the Fine Arts Building, and the Science Building. A Student Center, three dormitories, and the Health Science Building were completed in the summer of 1970.

On June 22, l972, the University was designated a land-grant institution by an Act of the United States Congress. The College of Agriculture and Life Sciences was created in March 1974.

Administrative autonomy was granted on October 4, 1976, with the enactment of Public Law 13-194, "The Higher Education Act of 1976," which became effective on November 3, l976. The Act, with subsequent amendments, established the University as a non-membership, non-profit corporation under the control and operation of a nine-member Board of Regents appointed by the Governor, with the advice and consent of the Legislature. Public Law 17-55 enacted on June 11, l984, provided further autonomy to the University and established staggered terms for members of the Board of Regents.

In the early 1990's the Board approved a physical master plan that resulted in construction of a library extension and renovation, construction of the Micronesian Area Research Center, Computer Center, the English and Communication Building, the Humanities and Social Science Building, a large lecture hall, and the School of Education Building. With a $14 million USDA loan, the Leon Guerrero School of Business building was opened for occupancy in July 2006. Currently, UOG has two Colleges, three Schools

and an enrollment of approximately 3,300 students and 243 full-time faculty that represent a diversity of island, U.S. mainland and Asian ethnicities.

2. What is the institution's mission?

UOG's mission is Inina, Diskubre, Setbisio – to Enlighten, to Discover, to Serve. UOG is dedicated to the search for and dissemination of knowledge, wisdom and truth. As a community of scholars, the university exists to serve its learners and the communities of Guam, Micronesia, and the neighboring regions of the Pacific and Asia. UOG prepares learners for life by providing the opportunity to acquire knowledge, skills, attitudes, and abilities through the core curriculum, degree programs, research, and outreach. At the Pacific crosscurrents of East and West, UOG provides a unique opportunity to discover and acquire indigenous and global knowledge

3. What are the institution's characteristics (eg. control and type of institution such as private, land grant, or HBI: location (e.g. urban, rural, or suburban area)?

The University of Guam, a land-grant institution accredited by the Western Association of Schools and Colleges, is the major institution of higher education in the Western Pacific. With a gorgeous view of Pago Bay and the Pacific Ocean, the University is a 161-acre campus on Guam's east coast. As the largest of some 2,000 islands that make up Micronesia, Guam is about three hours flying time from Tokyo, Manila, Taipei, Hong Kong, and Seoul and occupies a major strategic location for the United States that operates large U.S. Navy and Air Force bases.

As noted in the UOG Institutional [Efficiency and Effectiveness Land Grant Essay](#) (a.) a central part of the Land-Grant mission requires the University of Guam to engage with the community, serve the needs of Guam and the Micronesia region, and fulfill the objective as a Land-grant institution by providing "knowledge-based research to the community through innovative programs" which:

- Foster strong linkages between the University and the communities of Guam, Micronesia, and the Asia-Pacific region;
- Offer curricular and co-curricular programs in which students develop skills and commitment to community engagements that capitalize on the cultural and economic diversities that shape the region; and
- Encourage our faculty to become involved in community engagement.

4. Optional Links and key exhibits related to the institutional context could be attached here. (Links with the descriptions must be typed into a Word document that ca be uploaded here. The number of attached exhibits should be limited in number; BOE members can access other exhibits in the unit's electronic exhibit room.

B. The Unit

1.   How many candidates are enrolled in programs preparing them to work in P-12 schools at the following levels: initial teacher preparation, advanced teacher preparation, and other school professionals?

FA06-SP07, FA07-SP08 Initial Program # of Candidates

Programs	Entry		Total
	FA06-SP07	**FA07-SP08**	
ECE	22	30	52
ELEM	26	17	43
SEED	20	23	43
SPED	8	4	12
SOE	**76**	**74**	**150**

FA06-SP07, FA07-SP08 Advanced and Other School Professionals Programs # of Candidates

Program	Entry Total		Total
	FA06-SP07	**FA07-SP08**	**Total**
Admin & Supervision - Other	1	5	6
Language and Literacy - Other	2	5	7
SEED - Advanced	3	6	9
SPED - Advanced	2	13	15
TESOL -Advanced	2	1	3
SOE	**10**	**30**	**40**

1.a. (Optional) A table with these data could be attached here. A summary of what the data tell the unit about its candidates should be included in the response to B1a above.

2. Please complete the following table (Table 1) to indicate the size of the professional education faculty.

Table 1
Professional Education Faculty and Graduate Teaching Assistants

Academic Rank	# of faculty who full-time in the unit	# of faculty who are full time in the institution, but part-time in the unit	# of faculty are part-time at the institution & assigned to the unit (e.g. adjunct faculty)	# of graduate teaching assistants teaching or supervising clinical practice
Professors	2		1	
Associate Professors	13			
Assistants	6			
Instructors	1			
Adjuncts			9	
Others				
Total	21		10	0

3. What do the data in above table (Table 1) tell the unit about its faculty?

Over 50% of full time faculty are experienced tenured and provide continuity and consistency in program operations and instructional practice.

4. Please complete the following table (Table 2) to indicate the programs offered at your institution at the initial teacher preparation level.

Table 2

OVERVIEW

#4 Table 2: Teacher Preparation Programs and their Review Status

Program Name	Award Level (e.g. Bachelor's or Masters)	Number of Candidates enrolled or admitted	Agency or Association Reviewing Programs (e.g. State, NAEYC, or Bd. Of Regents)	Program Report Submitted for National Review (yes/no)	State Approval Status (e.g., approved or provisional)	Status of National Recognition of Program by NCATE
Early Childhood Ed	Bachelor's	52	National Association for Education of Young Children (NAEYC)	yes		Nationally recognized
Elementary Education	Bachelor's	43	Association for Childhood Education International (ACEI)	yes		In process
Secondary Education	Bachelor's	43	National Council of Teachers of Mathematics (NCTM)	Yes		Not recognized
			National Council of Teachers of English (NCTE)	Yes		Not recognized
			National Council for Social Studies (NCSS)	Yes		Not recognized
			National Science Teachers Associations (NSTA)	Yes		Not recognized
Special Education	Bachelor's	12	Council for Exceptional	Yes		Nationally recognized

			Children (CEC)			
Physical Education, Health, and Sports Studies	**Bachelor's**	**0**	**National Association for Sport and Physical Education (NASPE)**	**Yes**		**Nationally recognized**

5. What do the data in above table (Table 2) tell the unit about its initial teacher preparation programs?

Nationally recognized programs at the initial teacher preparation level include Early Childhood Education, Special Education, and Physical Education, Health, and Sports Studies. All other initial programs are in the process of obtaining national recognition from their respective SPA.

6. Please complete the following table (Table 3) to indicate the advanced programs offered at your institution for the advanced preparation of licensed teachers and other school professionals.

Table 3
Advanced Preparation and Other Professionals Programs and Their Review Status 2006-08

Overview
#6 Table 3

Program Name	Award Level (e.g. Bachelor's or Masters)	Number of Candidates enrolled or admitted	Agency or Association Reviewing Programs (e.g. State, NAEYC, or Bd. Of Regents)	Program Report Submitted for National Review (yes/no)	State Approval Status (e.g., approved or provisional)	Status of National Recognition of Program by NCATE
Administration and Supervision	**Master's**	**6**	**Educational Leadership Constituent Council (ELCC)**	**Yes**		**Not recognized**
Language and	**Master's**	**7**	**International**	**Yes**		**Nationally**

Literacy			Reading Association			recognized
Secondary Education	Master's	9	n/a	n/a		n/a
Special Education	Master's	15	National Council for Exceptional Children (CEC)	No		No SPA
TESOL	Master's	3	Teaching English to Speakers of other Languages (TESOL)	Yes		Not recognized

7. What do the data in above table (Table 3) tell the unit about its advanced programs?

The Language and Literacy program has received national recognition from its SPA. Administration and Supervision submitted a program review report on September15, 2008. Response is pending. The TESOL program will resubmit an initial program review in 2010 or earlier.

8. What programs are offered off-campus or via distance learning technologies? What alternate route programs are offered?

Off-campus programs:

In spring 2007 the University of Guam received WASC approval to offer the Master of Education in Administration and Supervision. Prior to this application, the School had been providing courses for certification through a partnership with the CNMI Public School System starting in 1990

The Administration graduate program offered its first classes in the summer of 2006 with a cohort of 11 students. None have applied for admission into the master's program.

	06/Summer	06/FA	07/SP	07/Summer
Administration	11	09	05	19

Partnership BA in Elementary Education Program
Approved by WASC (b.) in 2007 the Partnership BA in Elementary Education Program offers the existing UOG degree in elementary education as an off-campus program at the College of Micronesia in Palikir, Pohnpei. The Partnership BA is designed for pre-service students who have earned an associate's degree in Teacher Preparation-Elementary or

Teacher Education-Elementary, currently offered by the College of Micronesia-FSM. The program is offered on the College's main campus, but attracts students from other federated states which include Yap, Chuuk, Pohnpei, and Kosrae. Students who qualify for the program must meet the admission standards to the University of Guam and the School of Education. Students accepted into the program proceed through the 300 and 400 level courses in the Elementary Education Program of the UOG School of Education. Any changes made to the courses by SOE must also be carried out in the off-campus courses. Courses are offered on a rotational basis during the summer, intersession, and regular semesters. School of Education faculty and COM-FSM faculty, qualified and approved by appropriate University of Guam processes, teach the third year courses. SOE faculty travels to Pohnpei during the summer months to teach courses. College of COM-FSM faculty facilitates and supervises the practicum and student teaching courses in FSM in close coordination with and only after training by the SOE Elementary Program faculty. The COM-FSM advisors undergo orientation on the SOE advisement procedures and the SOE assessment system. Elementary Education program faculty works closely with the COM-FSM advisors and faculty to administer the program and ensure that assessment data on candidate performance are collected and submitted to the School of Education in a timely manner. All data are submitted to the IDP coordinator in the IDP Office at SOE. The coordinator forwards the data to the Elementary Program faculty for review. Data are also submitted to the SOE Administrative Assistant responsible for data collection.
.

Individualized Degree Plan (IDP)
The Individualized Development Plan (IDP) is designed for inservice teachers in the Federated States of Micronesia, the Republic of Palau, Commonwealth of the Northern Marianas, and the Republic of the Marshall Islands who wish to obtain an undergraduate degree in education from the University of Guam. Initiated by the College of Education in 1979, IDP includes over 250 students in the region. IDP's are made possible pursuant to contractual agreements between the University and Local Education Agencies (LEA). Courses are conducted primarily off-campus, however, the School of Education retains control of the academic programs. SOE faculty travel to the islands during the summer months to teach courses as needed by the islands. Adjuncts in the islands requesting to teach in the courses must be approved by appropriate University of Guam processes. Students may also take courses on the University campus by applying for educational leave and financial aid such as PREL grants or local DOE scholarships.

The IDP office, housed in the School of Education, works in conjunction with the University's Office of Admissions and Records, the Professional and International Programs (PIP) office, and the Local Education Agencies in the Micronesian islands, to administer the programs. Students applying for IDP must have: 1) completed 40 or more transferable credits from a community college or other higher education institution approved by the University 2) be employed by a Local Education Agency.

An official IDP is Plan is appropriately signed by the School of Education designee and the Director, Admissions & Records. Holders of an official Individual Degree Plan will be

granted admission to the School of Education if they can fulfill the following requirements (UG catalog p. 91):

- GPA of 2.7 or more for all earned credits
- At least 40 semester hours of credit acceptable to the University of Guam
- Consent of the Program Coordinator, the approval of the Executive Director, School of Education

To ensure the quality of the candidates, The IDP office in SOE collaborates with the University program faculty, COM-FSM faculty, and the LEA'S for timely submission of data on candidate performance, including student teaching documents.

Alternate Route Program
SOE is currently exploring and considering an alternate route program. Students with a bachelor's degree other than education are now progressing independently to fulfill Guam certification requirements.

9. (Continuing Visit Only) What substantive changes have taken place in the unit since the last visit (e.g., added/dropped programs/degrees; significant increase/decrease in enrollment; major reorganization of the unit, etc.)? (These changes could be compiled from those reported in Part C of the AACTE/NCATE annual reports since the last visit.)

10. (Optional) Links and key exhibits related to the unit context could be attached here. (Links with descriptions must be typed into a Word document that can be uploaded here. The number of attached exhibits should be limited in number; BOE members can access other exhibits in the unit's electronic exhibit room.)

CONCEPTUAL FRAMEWORK

1. Briefly summarize the following elements of the unit's conceptual framework:

Shared Vision
Development of the Conceptual Framework, from the onset, involved all SOE faculty members, as well as stakeholders from within and outside the UOG community. This broad involvement guaranteed input from all constituencies and insights from a wide range of professional experiences based on the notion that a system developed by individuals who feel ownership for the process is more likely to succeed. In 1999, a rudimentary draft was developed and discussed in meetings of the Conceptual Framework Committee comprised of the College of Education (COE) faculty and the Dean. The Committee engaged in considerable discussion centering on beliefs and philosophy that set the stage for the first draft of the Framework. The Committee distributed draft copies of the Framework to the SOE National Council for Accreditation of Teacher Education (NCATE) team at that time, to the faculty, the COE's Academic Affairs Committee (AAC), and representatives from the Guam Public School System

(GPSS) and the Catholic Schools.

In 2001, the themes and ideas in the draft Conceptual Framework were further developed, refined, and revised into a final version by a small working group of the SOE (formerly the COE) faculty and the Dean, with input from the NCATE consultant, students, and other stakeholders. During that time, the graphic representation (c.) was created, and after collaborative efforts between faculty and students a final model emerged. Since then the Conceptual Framework has been put into use, guiding discussion about assessments, dispositions, candidate performance, and the quality of school partnerships. It has also inspired greater faculty collaboration and collegiality. From the rudimentary draft in 1999 to final draft in 2001, the Conceptual Framework has been and continues to be a shared and powerful vision.

Furthermore, the SOE shared the Conceptual Framework in meetings with the Dean of the College of Liberal Arts and Social Sciences (CLASS) and the CLASS AAC, the faculty and Administrative Chair of the School of Nursing, Social Work and Health Sciences (SNSWHS), and the SOE Advisory Council. Copies of the Conceptual Framework have been distributed to key faculty and administrators of the College of Natural and Applied Sciences (CNAS) and the School of Business and Public Administration (SBPA). Students and faculty across the campus were invited to sessions at the UOG Lecture Hall to learn about NCATE and the Conceptual Framework. A large contingent of high school students from the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR-UP), many of whom are interested in attending SOE, participated in the sessions. All attendees received copies of the Conceptual Framework. The SOE faculty made it a point to discuss the Conceptual Framework with their students and to provide packets containing information about NCATE and the Conceptual Framework. A course was developed to introduce students to NCATE, the Conceptual Framework, and LiveText for online portfolios.

Mission: The major mission of the SOE is the provision of pre-service teacher education to meet the multicultural and educational demands of the island's school system as well as providing for the region as a whole. The emerging challenges brought about by social, economic, and political changes within the region have created a need to expand the School's ability to deliver appropriate instruction and related educational services. Thus, an integral part of the School's mission has required it to become the academic, research, and service center for Guam and the greater Micronesian area.

Philosophy, purposes, goals, and institutional standards of the unit

The primary goal of the SOE is the delivery of high quality education for preservice teachers and other professional educators on Guam, the Western pacific region, and the U.S. mainland. Such training must meet the multicultural educational demands of the island school system as well as provide educational leadership for the Micronesian region as a whole. SOE faculty adheres to a constructivist view of learning that is consistent with preparing a multicultural student population. In the words of Arends, Winitzky, & Tannenbaum, 2001):

Rather than thinking of knowledge as eternally fixed and transmittable through language from teacher to learner, constructivists see knowledge as something that individuals actively construct through personal experience. This theory focuses on learning as a social process, in which learners construct knowledge through interaction with their teachers, peers, and others. (p. 36)

Rooted in constructivism, the Conceptual Framework has established a foundation of excellence for preparing SOE candidates for reflective decision-making, knowledgeable scholarship, and effective communication. The SOE envisions its candidates as possessing the following qualities: content knowledge, pedagogy, technological skills; language effective communication skills; commitment to professional growth and the ethic of service; the habit of reflection and desire for continuous growth in professional practice; sensitivity and disposition for critical analysis and synthesis; and responsiveness to the needs and interests of others. These standards of academic and human qualities provide direction for programs, courses, teaching, candidate performance, scholarship, service, and unit accountability.

Knowledge bases, including theories, research, the wisdom of practice, and educational policies that drive the work of the unit

The understanding that we are preparing teachers as knowledgeable scholars, reflective decision-makers, and effective communicators is pivotal to the work of the Unit. The Units' governance structure ensures coherence through the Teacher Education and Public Service (TEPS) and the Foundations, Educational Research and Human Services (FERHS) Divisions (d.), and the SOE AAC which reviews curriculum changes. Candidates exit SOE programs as knowledgeable scholars who are able to effectively communicate the knowledge they gain from general education, foundations, and specialty courses to students in the P-12 schools. Candidates also emerge as reflective decision makers who are accountable for the learning of all students.

The SOE prepares candidates who are advocates for all learners, as described below:

- The element of **Knowledgeable Scholar** includes: content knowledge, professional knowledge, pedagogical knowledge, technical knowledge, service learning, and ethics. Candidates should be well-grounded in educational theory and well-equipped with a strong knowledge base to provide learning environments that value diversity, collaboration and share responsibility, and promote a high level of achievement and quality for all learners.

- The element of **Effective Communicator** includes: verbal/non-verbal skills, adaptability, language processes, interpersonal skills, knowledge dissemination and affective skills. The effective use of communication is essential in building a community of learners and networking with parents and members of the community. Within the classroom, effective communication is a powerful tool for student learning. Outside the classroom, ongoing conversations with parents, other teachers, administrators, and staff about student learning also necessitate

the use of effective communication.

- The element of **Reflective Decision Maker** includes: adaptations and innovations, holistic perspective, social responsiveness, accountability for student learning, self-evaluation and professional growth. Reflective decision makers contemplate possible long-term consequences of professional actions; reflective decision-making judges the appropriateness of these actions and the effects of the actions on student performance, and maintains an informed perspective concerning all aspects of teaching and instruction.

Professional dispositions, including proficiencies associated with diversity and technology, are aligned with the expectations in professional, state, and institutional standards.

The SOE disposition rubric (s), a systematic assessment of candidate dispositions, evaluates the candidates' dispositions based on four levels (unsatisfactory, basic, proficient, and distinguished). Dispositions are fundamental to the Conceptual Framework:

- Knowledgeable scholar: commitment to learning one's own learning and student learning

- Effective communicator: willingness to communicate enthusiastically

- Reflective decision maker: sensitivity to diversity

Grounded in the Conceptual Framework that embraces diversity and technology, the Unit prepares candidates who have the dispositions to teach a diverse student population in today's technological world. UOG is fertile ground for diverse experiences, practices, and challenges for teaching and learning. The SOE faculty is committed to Marshall's (2001) insight that the goal of content integration is to expand the curriculum by incorporating contributions of diverse cultures into traditional disciplines of study. Faculty is committed to affirming diversity and meeting the challenges presented by a wide range of constituents and communities. Moreover, the SOE Conceptual Framework exemplifies a commitment to technology as a necessary knowledge base and skill for candidates. This is evident across the three elements of knowledgeable scholar, effective communicator and reflective decision-maker in both the initial and advanced programs. Candidates demonstrate their technology skills in the coursework and in student teaching. The Language and Literacy and TESOL programs require candidates to complete a graduate level educational technology course, and other graduate programs encourage their candidates to select technology courses as electives. SOE utilizes LiveText, a suite of Web-based tools that allows candidates to develop online portfolios to document competency in meeting professional, national, and Guam Teacher Professional Standards (GTPS) (e.). SOE has two computer labs. The lab located on the first floor of the SOE building has recently been equipped with new Apple computers.

students, SOE candidates, and faculty. The SOE is committed to encouraging all faculty to infuse instructional technology into their lessons and to implement LiveText portfolios in their courses. UOG has adopted Moodle, an Open Source Course Management System (CMS), for blended and online course delivery.

Summarized description of the unit's assessment system

The core of the Unit Assessment System is evaluation of candidate performance and Unit operations. Candidate performance is assessed using multiple assessments from internal and external sources at key transition points. These transition points include admission, mid, exit point, and follow-up assessments. Admission assessments for teacher education candidates in the initial programs include GPA, transcripts, portfolio, writing sample, PRAXIS I, and evaluation of dispositions. At the midpoint, assessments include GPA, portfolio, course performance assessments, PRAXIS II, application to student teaching, and evaluation of dispositions. Exit assessments include portfolio and supervisor evaluations. At the advanced level, admission assessments include an essay on accomplishments, interests, and goals, GRE scores, GPA, Form-A (f.), and evaluation of dispositions. Midpoint assessments include content, pedagogical content (if applicable to the program), and professional knowledge assessments which are program specific, as well as evaluation of dispositions. At the midpoint, candidates who do not meet the knowledge, skills, and dispositions criteria can be held back from student teaching. At the exit point, assessments include written comprehensive exam/portfolio, thesis or special project for those candidates on the thesis/special project track, and Form-B (g.) verifying that all requirements for graduation have been completed. Beginning fall 2009, all graduate programs will require the PRAXIS II as an exit requirement. The Unit's Assessment System has been aligned with the School of Education's Conceptual Framework, Dispositions, Guam Teacher Professional Standards (GTPS), Interstate New Teacher Assessment and Support Consortium (INTASC), Specialized Professional Association (SPA) and the National Board for Professional Teaching Standards (NBPTS).

The Unit operations are assessed via UOG program self-studies, faculty evaluations, and the Comprehensive Evaluation System (CFES) (h.) that requires faculty to reflect upon his/her performance in teaching, research, and service, to determine if the current year's goals have been achieved, and to set appropriate goals for the next academic year, as well as survey data. Surveys collect data from alumni and employers annually.   In addition, each semester candidates in student teaching and internship settings evaluate their program experiences.

1a. (Optional) Links to key exhibits related to the conceptual framework could be attached here. (Links with descriptions must be typed into a Word document that can be uploaded here. The number of attached exhibits should be limited in number; BOE members should access most of the exhibits in the unit's electronic exhibit room.)

STANDARD 2: PROGRAM ASSESSEMENT AND UNIT CAPACITY

The Unit has an assessment system that collects and analyzes data on applicant qualifications, candidate and graduate performance, and Unit operations to evaluate and improve the Unit and its programs.

Development of the Assessment System

The groundwork for the Unit's current assessment system began over 15 years ago with the admission of students to the College of Education. The process has been developed to include key assessments at the transition points (entry, midpoint and exit). In 2004, the SOE Executive Director convened an SOE Assessment Committee, chaired by a faculty member, to spearhead the Unit's assessment initiatives. The search for a data management system was begun with LiveText eventually adopted by the Unit in 2005. Faculty began the process of developing and refining key assessments and aligning course syllabi with the SOE Conceptual Framework, INTASC, and SPA standards. Conversations with our K-12 cooperating teachers who supervise student teachers led to a revision in 2004 of long established instruments to more accurately define student achievement. Meetings were conducted each semester with these classroom supervisors to share any concerns about the assessment system. The GPSS district administrators also provided input. A major change to the SOE assessment system was the addition of the PRAXIS I exam at entry point to align with the new GPSS standards. An SOE Advisory Council was formed with representatives from the University and the community. The Council provided input about the Unit's assessment system. The University hired an NCATE Coordinator and an NCATE data documentation clerk (position title recently changed to Administrative Assistant) to facilitate the NCATE accreditation process.

As we began to look systematically at our existing assessment practices, we found that many types of data were already being collected, including various performance measures, but that these needed to be integrated into a unified system. Our development work has thus consisted of several significant tasks (a) designing organizational structures to ensure that assessment data are collected, disseminated, and systematically used to improve teaching and learning (b) ensuring that all programs are included in the assessment system (c) finding ways to make the existing assessments more fair, accurate, and consistent, and (d) aligning course syllabi with the SOE Conceptual Framework, GTPS, INTASC, SPA, and NBPTS standards.

To ensure that these tasks were completed, we initiated the following actions:
The SOE Assessment Committee was restructured to include the SOE Executive Director, the NCATE Coordinator, NCATE Administrative Assistant for NCATE data collection, LiveText Coordinator, the two Division Chairs (TEPS & FERHS), and the Chair of the SOE graduate programs. Inclusion of the two Division Chairs ensures greater representation for both Divisions. The Committee distributes an Assessment Data Report (ADR) (k.) to faculty each Fall that reports all the transition point and unit assessment data from the previous year. Data are collected on an ongoing basis and aggregated each semester on LiveText. During faculty meetings, NCATE Retreats, and

Advisory Council meetings, faculty and stakeholders review and provide recommendations based on the data in the ADR.

During spring Semester 2007, the SOE Admission Committee, representing faculty from both Divisions, was reconstituted to collect, monitor, and evaluate admission point data for the initial programs electronically through the use of LiveText, the approved management system that is used by all faculty to collect data. The Admissions Committee regularly evaluates the admission assessments and makes changes as needed. For example, a review of the data revealed that the interview process for applicants did not provide sufficient data on applicants' dispositions as originally intended. The interviews were eliminated. In addition, the letters of recommendation requirement was replaced with evaluation of dispositions. In fall 2008 a Midpoint Assessment Committee was formed to ensure the timely collection and evaluation of midpoint data via LiveText.

As we reviewed the assessment data, we realized that there was some confusion with the Secondary Education program. During the initial NCATE visit, non-education majors were categorized as Option A candidates in the program, when in fact they were not. They were able to enroll in upper-division education courses and we were not collecting data on them. We have since ended this practice. Effective 2008 non-education majors are no longer permitted to enroll in upper division education courses. The secondary education candidates have two options: 1. Option A: a double major (Education and a Content area) or 2. Option B: a major in Education only with a specialty in a content area. Candidates go through the same data collection process and transition points.

We have also established a number of ways to ensure that our assessment procedures are fair, accurate, consistent, and free of bias. Additionally, all course syllabi have been aligned with the SOE Conceptual Framework, GTPS, INTASC, SPA, and NBPTS standards.

As a result of continuous reflection and actions implemented, the Unit has an assessment system that collects and analyzes data on applicant qualifications, candidate and graduate performance, and Unit operations to evaluate and improve the Unit and its programs. The following sections provide a more in-depth examination of the assessment system

2a. Assessment System

How is the unit assessment system (i.) evaluated and continuously improved? Who is involved and how?

The Unit works closely with its professional community and other stakeholders to continuously evaluate and improve the unit assessment system. Stakeholders include educators from the partnering school district, the SOE Advisory Council, SOE student organizations, College of Natural and Applied Sciences and College of Liberal Arts and Social Sciences faculty, a UOG support and resources personnel and educational leaders from the University of Guam, CNMI, and Micronesia.

Many of the multiple sources of data (j.) were designed in conjunction with K-12 teachers and administrators. Cooperating teachers provide feedback and share concerns about the assessment system. The SOE Advisory Council, comprised of representatives of the University and the P-12 community, meets on an annual basis to provide continuous input. Agenda and minutes of Advisory Council meetings are available for review. College of Natural and Applied Sciences (CNAS) and College of Liberal Arts and Social Sciences (CLASS) faculty met with SOE during two collaborative meetings in AY2006-2007. Faculty discussed the assessment system and how to improve teacher quality. Results of these meetings can be found in the NCATE exhibits. SOE hosted an Educators Summit on November 21, 2008 that included stakeholders from UOG, the community, and the region. Stakeholder involvement included representatives from SOE student organizations, CNAS and CLASS faculty, UOG support and resources representatives, SOE Advisory Council, and the following UOG and regional leaders: University of Guam President, Guam Community College President, Guam Public School Superintendent Superintendant, President of Palau Community College, President of College of Micronesia-Federated States of Micronesia (COM-FSM), and President of the College of the Northern Marianas (CNMI). The purpose of the Educators Summit was to engage our stakeholders in the Unit's assessment process and to obtain recommendations based on the data reported in the Assessment Data Report (k.). For example, faculty and stakeholders noted that the data reveal that a small number of applicants do not meet the writing benchmarks for admission. The recommendation is to require these applicants to retake developmental writing classes and to seek additional support to improve writing skills. Data reveal a larger percentage of failure rates on the PRAXIS I among Early Childhood and Elementary candidates. It is recommended that applicants enroll in PRAXIS I preparation training or courses. Regional leaders expressed their support of the NCATE accreditation process, noting that NCATE accreditation is good for the region as a whole. One island leader pledged to encourage students from his island to attend the University of Guam.

The following section describes the multiple points of candidate assessments, how they are evaluated, when the data are collected, and when the program faculty review the data.

Initial Teacher Preparation
The transition points include admission, mid, and exit assessments collected in the fall and spring semesters. Admission assessments include GPA, transcripts, portfolio, writing sample, PRAXIS I, and evaluation of dispositions. At the midpoint, assessments include GPA, portfolio, course performance assessments, PRAXIS II, application to student teaching, and evaluation of dispositions. Exit assessments include portfolio and supervisor evaluations. Program faculty review key assessments each fall and use the data to make program changes as needed.

Follow–up evaluation is also an important component of the assessment system. The Unit implements systematic collection of survey data from alumni and employer annually. In addition, each semester candidates in student teaching and internship

settings evaluate their program experiences. Results are shared and analyzed by faculty during the fall semesters

Advanced and Other School Professionals Programs
Assessment of candidate proficiencies is based on multiple assessments at the admission, mid, and exit points based on a common set of evaluation instruments. Admission and exit point assessments are common across the programs, while midpoint assessments are program specific. Data are collected each semester. Admission assessments include an essay on accomplishments, interests, and goals, GRE scores, GPA, Form-A, and evaluation of dispositions. Midpoint assessments include content, pedagogical content (if applicable to the program), and professional knowledge assessments which are program specific, as well as evaluation of dispositions. At the exit point, assessments include written comprehensive exam/portfolio, thesis or special project for those candidates on the thesis/special project track, and Form-B verifying that all requirements for graduation have been completed. Effective fall 2009, all graduate programs will require candidates to pass the PRAXIS II as an exit requirement**.** Program faculty reviews the data each fall semester and use the data to modify programs as needed.

The programs annually survey recent graduates to solicit information about the satisfaction of graduates with their preparation. For example, Administration and Supervision graduates expressed the need to learn more about special education law and its implications for school administrators. The program added Special Education Law as a course elective effective January 2007 Survey data from alumni and employers are collected annually. Results of these surveys are shared with faculty through the Assessment Data Report each fall semester. A LiveText Candidate exit survey will be added spring 2009 semester.

Data are collected on an ongoing basis and aggregated each semester on LiveText. Each fall the SOE Assessment Committee distributes an Assessment Data Report (ADR) (k.) to faculty that reports all the transition point and unit assessment data from the previous year. Aggregated data are shared and analyzed during the fall Faculty Retreats. Based on the data, program faculty make recommendations to the SOE Academic Affairs Committee (AAC) made up of representatives from each Division which is the venue for reviewing aggregated data and recommending program policy, procedural, and curricular changes for the approval process. In spring 2009, faculty will review assessments and make recommendations for improvement. The assessment review is an annual activity conducted every spring semester.

1.   **Please complete the following table (Table 6) to indicate the key assessments used by the unit and its programs to monitor candidate performance at transition points such as those listed in Table 6**

Table 6
Unit Assessment System: Transition Point Assessments

Unit Assessment System: Transition Point Assessments Initial Programs

Programs	Admission	Entry to clinical practice	Exit from clinical practice/Program completion	After program completion
Early Childhood Education	Praxis I, Writing Sample, Letters of Recommendations, Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluations	Grade Point Average, Portfolio, Course Performance Assessments, Praxis II	Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluation, Exit Survey-Self Reflection, Classroom and University Supervisor Evaluation	Employer Survey Alumni survey
Elementary Education	Praxis I, Writing Sample, Letters of Recommendations, Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluations	Grade Point Average, Portfolio, Course Performance Assessments, Praxis II	Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluation, Exit Survey-Self Reflection, Classroom and University Supervisor Evaluation	Employer Surveys Alumni survey
Physical Education	Praxis I, Writing Sample, Letters of Recommendations, Grade Point Average, Portfolio,	Grade Point Average, Portfolio, Course Performance	Grade Point Average, Portfolio, Course Performance	Employer Survey Alumni survey

	Course Performance Assessments, CE Course Evaluations	Assessments, Praxis II	Assessments, CE Course Evaluation, Exit Survey-Self Reflection, Classroom and University Supervisor Evaluation	
Secondary Education (Initial)	Praxis I, Writing Sample, Letters of Recommendations, Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluations	Grade Point Average, Portfolio, Course Performance Assessments, Praxis II	Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluation, Exit Survey-Self Reflection, Classroom and University Supervisor Evaluation	Employer Survey Alumni survey
Special Education (Initial)	Praxis I, Writing Sample, Letters of Recommendations, Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluations	Grade Point Average, Portfolio, Course Performance Assessments, Praxis II	Grade Point Average, Portfolio, Course Performance Assessments, CE Course Evaluation, Exit Survey-Self Reflection, Classroom and University Supervisor Evaluation	Employer Survey Alumni survey

Unit Assessment System: Transition Point Assessments Advanced and Other Professionals Programs

Programs	Admission	Entry to	Program	After program

		clinical practice	completion	completion
Administration and Supervision	Admission portfolio that includes a Form-A with GRE score, 3.0 GPA, Essay on accomplishments, interests, goals.	Midpoint portfolio that includes program specific artifacts for content and professional knowledge	Grade Point Average, Exit Portfolio that includes Thesis/Special Project, written comprehensive exam, and Form-B)	Employer survey Alumni survey
Language and Literacy	Admission portfolio that includes Form-A, GRE score, 3.0 GPA, Essay on accomplishments, interests, goals.	Midpoint portfolio that includes program specific artifacts for content and professional knowledge	Grade Point Average, Exit Portfolio that includes Thesis/Special Project for those on Thesis/SP track, written comprehensive exam, and Form-B	Employer survey Alumnni survey
Secondary Education (Advanced)	Admission portfolio that includes Form-A, GRE score, 3.0 GPA, Essay on accomplishments, interests, goals.	Midpoint portfolio that includes program specific artifacts for content, pedagogical content, professional knowledge	Grade Point Average, Exit Portfolio that includes Thesis/Special Project, written comprehensive exam, and Form-B	Employer survey Alumni survey
Special Education (Advanced)	Admission portfolio that includes Form-A, GRE score, 3.0 GPA, Essay on accomplishments, interests, goals.	Midpoint portfolio that includes program specific artifacts for content, pedagogical content,	Grade Point Average, Exit Portfolio that includes Thesis/Special Project, culminating SPED portfolio, and	Employer survey Alumni survey

		professional knowledge	Form-B	
TESOL	Admission portfolio that includes Form-A, GRE score, 3.0 GPA, Essay on accomplishments, interests, goals.	Midpoint portfolio that includes program specific artifacts for content, pedagogical content, professional knowledge	Grade Point Average, Exit Portfolio that includes Thesis/Special Project for those on Thesis/SP track, written comprehensive exam, and Form-B	Employer survey Alumni survey

How does the unit ensure that the assessment system collects information on candidate proficiencies outlined in the unit's conceptual framework, state standards, and professional standards?

To ensure that the assessment system collects information on candidate proficiencies outlined in the unit's conceptual framework, state standards and professional standards, all applicants and SOE candidates must submit key assessments at the program level and at each decision point. Only qualified candidates may proceed in the program. Assessments are aligned with the SOE conceptual framework, INTASC, SPA, GTPS, and NBPTS standards. Data are inputted into LiveText for review and analysis. The collection of admission data occurs fall and spring semesters. For the initial programs, the SOE Admissions Committee ensures the timely collection and review of admission portfolios via LiveText. The Midpoint Committee monitors the timely collection of midpoint data for both the initial and advanced programs and ensures that the respective program committees have evaluated the data on LiveText. Announcements are posted throughout SOE informing students of the admission, mid, and exit portfolio submission deadlines. Brochures (l. & y.)for both initial and advanced programs inform students of the process and deadlines for submission. Brochures are readily available in the SOE offices and on the uog website. Program faculty advises candidates on the timely submission of all portfolios.

A faculty member serves a dual role as LiveText Coordinator and Assessment Committee Chair to oversee the system, provide training to candidates and faculty, and to assist the unit leadership in effective practices relative to maximizing the features of LiveText. Data management for the unit assessment system is centralized in the NCATE Documentation Office and electronically managed by the Administrative Assistant under the supervision of the Assessment Committee Chair and the NCATE Coordinator, with the Executive Director overseeing all NCATE assessment operations. The Administrative Assistant also provides LiveText training to faculty and candidates as needed.

4. How does the unit ensure its assessment procedures are fair, accurate, consistent, and free of bias?

Test of Fairness, Accuracy, and Consistency and Avoidance of Bias

Fairness and Accuracy
Assessments are fair when they assess what has been taught and accurate when they measure what they propose to measure. Assessments are accurate when they measure what they purport to measure.

To ensure fairness and accuracy, the unit relies on the standardized internal and external measures:

- Content of the assessment instruments are correlated with course syllabi to ensure that candidates are assessed on what is taught.
- Assessment of candidate proficiencies is based on multiple assessments at key transition points (i.)based on a common set of evaluation instruments.

- Syllabi include statements that encourage candidates with disabilities to seek accommodations, as necessary.

- Candidate dispositions are assessed at multiple points in the program using the same assessment instrument.
- Course syllabi distributed by faculty on first day and posted on LiveText.
- Focus groups, consisting of initial and advanced candidates, have been conducted to obtain candidates' feedback on key assessments. Detailed results (m.) of the focus groups can be found in the NCATE exhibits. Faculty has reviewed the results and made changes to the assessments as needed.

- The School tries to ensure that program expectations and requirements are clear to all candidates. University print and online publications detail program requirements. The SOE Assessment Committee has prepared a brochure of instructions, timeframes, and transition point assessments and information on how the assessments are scored and used toward completion of their programs. Brochures (l.) are distributed to candidates each semester. Copies of brochures are readily available in the SOE administrative offices and on the SOE NCATE website. A copy of the brochure is also posted on the School of Education link on the uog website. Flyers (n.) announcing the assessments and deadlines for submission are posted in the SOE building each semester. Program advisors inform off-campus students about the transition points and timeframes via email advisement and visits to the on-campus sites. The Elementary faculty teaches in Pohnpei each summer and shares this information with their students. The brochure is also available for off-campus students on the SOE website .

- Faculty members are available to advise students and clarify any points of concern. Despite these efforts, candidates occasionally are unable to meet requirements at the key transition points in a timely fashion. They may be: (a) placed on academic probation; (b) denied advancement in their preparation programs; (c) asked to follow a plan of assistance; and/or (d) encouraged to explore career alternatives other than the field of education. All efforts are made to address those students who do not meet requirements at each transition point. For example, the Admission Committee consults with the respective program coordinator and program faculty for their recommendation when a student does not meet the requirements. Students may further appeal to the Executive Director. At the midpoint, students who do not pass student teaching or internship are mentored by program faculty and generally allowed to retake the course the following semester. These cases are handled on a case-by-case basis, with input from program faculty and university supervisors.

Consistency

Assessments are consistent when they produce dependable results or results that would remain constant on repeated trials. To ensure consistency, the Unit relies on the following multiple measures to guarantee this endeavor:

- Faculty use common course outlines (o) and every course has identified a key assessment with rubrics to measure candidates on the same knowledge and skills regardless of who teaches the class, and to ensure that expectations for candidates are clear. Rubrics are aligned with the Unit's Conceptual Framework and with national, professional, and GTPS standards.

- Cooperating teachers and university supervisor training is conducted to ensure fairness, consistency, etc. with regard to evaluating student teachers.

- Assessments for student teaching are available to candidates and all stakeholders in handbooks; candidates are made aware of assessments in student teaching orientation sessions and during the Student Teaching Seminars (p.).

- At least two or more faculty members must read and score an applicant's admission, mid, and exit point assessments.

- Inter- rater reliability tests have been conducted on key assessments. Training is provided for raters that promote similar scoring patterns, using multiple raters.

- A comparative data analysis of relationship between assessment results and employers' assessment (q.) of performance is conducted as an additional measure of consistency.

5. What assessments and evaluations are used to manage and improve the operations and programs of the unit?

Multiple assessments and evaluations are used to manage and improve Unit operations.

Program Self-Study
One of the major assessments is the University of Guam Program Self Study describing both the qualitative and quantitative aspects of the program under review. Program reviews examine and document support for student learning, define student learning outcomes and assessment methods, actions taken to improve pedagogy and curricula, along with the evidence in support of these actions. After approval from the respective program, the SOE AAC, and the Executive Director, the report is forwarded to the appropriate UOG Curriculum Review Committee (initial and advanced) and to the senate for endorsement, with final approval from the Senior Vice President of Academic and Student Affairs.

Faculty Evaluations (r.)

Every semester, students evaluate their instructors and courses in 23 areas. The evaluation instrument has been aligned with the SOE Conceptual Framework. Data from student evaluations are collated, summarized and returned to the Dean and the instructor with student comments. Instructors use this information to improve overall quality of their teaching and for the promotion and tenure applications. The faculty evaluation process provides an effective vehicle to improve teaching within the Unit. Faculty meets individually with the Dean annually to discuss the results of their evaluations and ways to improve teaching performance as needed, as well as progress in meeting their annual goals for research/scholarship and service as identified in their Comprehensive Faculty Evaluation System plan (CFES) for the academic year.

Comprehensive Faculty Evaluation System (CFES) (h.)
Faculty complete an evaluation plan using the UOG Comprehensive Faculty CFES that requires faculty to reflect upon his/her performance in teaching, research/scholarship, and service, to determine if the current year's goals have been achieved, and to set appropriate goals for the next academic year. The faculty member compiles an extensive portfolio of evidence to substantiate accomplishment of goals established for the year. The effects of this ongoing assessment are evident in the achievements of, and work loads successfully carried out by the SOE faculty.

Surveys
The Unit implements systematic collection from alumni annually, employers (q.) annually, and graduates every semester. Each semester candidates in student teaching and internship (t.) settings evaluate their program experiences. Faculty use the data to make changes as needed. The Unit uses an assessment calendar to ensure that assessments are collected and used in a timely manner to improve Unit operations.

6. (Optional) One or more tables and links to key exhibits related to the unit the candidate's program or thesis committee, as appropriate.

2b. Data Collection, Analysis, and Evaluation

1. What are the processes and timelines used by the unit to collect, compile, aggregate, summarize, and analyze data on candidate performance, unit operations, and program quality?

All candidate data are collected through the School of Education which administers, collects, and analyzes the data. Deadlines for submission of admission and midpoint portfolios are October 15 and March 15. Students applying for admission into the SOE initial programs submit their Admission Portfolio to the SOE Admission Committee via LiveText for evaluation. Prior to acceptance into the midpoint course, candidates submit a Midpoint Portfolio to program faculty via LiveText for evaluation. The Midpoint Committee monitors the timely collection and evaluation of the data across the programs. At the Advanced programs level, students applying for admission into a graduate program submit their Admission Portfolio via LiveText to a review committee established by the candidates' Program Coordinator. Prior to acceptance into the program's midpoint course, candidates submit a Midpoint Portfolio to a review committee established by the Program Coordinator. As with the initial programs, the Midpoint committee monitors the collection and evaluation of midpoint data across the advanced programs. Candidates submit Exit Portfolios for evaluation to their program or thesis committee, as appropriate.

- **How often are the data summarized and analyzed? Whose responsibility is it to summarize and analyze the data? (Dean, assistant dean, data coordinator, etc.). In what formats are the data summarized?**

Each fall the SOE Assessment Committee distributes an Assessment Data Report (ADR) to faculty that reports all the transition point and unit assessment data from the previous year. Aggregated data in table format are shared and analyzed during the fall Faculty Retreats. SOE Advisory Council members, representatives from SOE student organizations, CNAS and CLASS faculty, UOG support and resources representatives, participate in the Retreats to review and provide feedback based on the ADR data.

- **What information technologies are used to maintain the unit's assessment system?**

The School of Education adopted College LiveText in 2004 as the vehicle for developing candidate portfolios and for electronically storing and aggregating performance evaluations across candidates in these programs. Candidates develop web-based portfolios for the key transition points and to showcase exemplary work samples created as they progress through their preparation programs. Faculty use LiveText to review and

assess work samples with customizable rubrics based on the conceptual framework and NCATE, national, and professional standards. The data collected through the assessment system are used to create reports for analysis and data informed decision making at all levels of the unit. Additionally, the unit utilizes Microsoft Access to sort candidate demographic data.

2. How does the unit maintain records of formal candidate complaints and their resolutions?
The School maintains a file of candidate complaints and documentation of how such complaints have been handled. The School addresses candidate grievances within the parameters of the University's student grievance policy, guidelines, and procedures. These are outlined in the student handbook published by the Office of Student Affairs.

3. (Optional) One or more tables and links to key exhibits related to the data collection, analysis, and evaluation could be attached here. Data in tables should be discussed in the appropriate prompt of 2b. (Links with descriptions must be typed into a Word document that can be uploaded here.)

2c. Use of Data for Program Improvement

1. What are assessment data indicating about candidate performance on the main campus, at off-campus sites, and in distance learning programs?

On the main-campus, the data indicate that candidates are performing at Acceptable levels on key assessments at the initial programs. While candidates consistently demonstrate the knowledge, skills, and dispositions at the Acceptable level, the area for which additional development appears to be most needed are content knowledge at both the admission and mid points. Data at the exit point indicate a need for additional training to meet the needs of diverse learners. The Unit continues to review key assessments to determine ways to improve candidate performance in these areas.
At the Advanced levels, data indicate that candidates are performing at the acceptable and target levels.

Program faculty analyze candidate performance at the transition points so that individual candidates meeting the necessary requirements can proceed in the program and advisement and action plans on a case-by-case basis developed for candidates encountering difficulty in the program. The data collected from key assessments are aggregated and used to assess program effectiveness. Reports are generated via LiveText to summarize the data.

Students in the off-campus programs are progressing through the transition points at the

Acceptable or Target benchmark.

Currently, the Unit does not offer online distance learning programs.

2. How are data regularly used by candidates and faculty to improve their performance?

Unit faculty meets with candidates throughout the semester to discuss their progress in moving through the transition points. Candidates reflect on the results of their assessments, and revise and improve as necessary. During advisement (u. & v.), candidates and faculty review their performance on the key assessments completed during that time period. The results inform them about the next steps for moving the candidate to the next level of the program. Faculty use candidate performance data and faculty evaluations conducted each semester to make improvements to their teaching and program curriculum, as needed.

3. How are data used to discuss or initiate program or unit changes on a regular basis?

Data are collected on candidates and programs throughout the year. As mentioned earlier in the report, each fall the Assessment Committee prepares the ADR report on data collected on candidate and Unit assessments from the previous year. Data are presented to faculty and stakeholders during the fall NCATE Retreat (w.). During the Retreat, participants discuss the data and make recommendations for program or unit changes. The recommendations are complied, reviewed by faculty during faculty and Division meetings. Program changes are initiated at the program level and routed through the appropriate Division, the SOE AAC, Executive Director, and then forwarded through the UOG approval process.

4. What data-driven changes have occurred over the past three years?

Assessment findings are used in various ways to improve program quality and unit effectiveness and thus to strengthen candidate performance. At the initial program level, course syllabi have been aligned with the SOE Conceptual Framework, INTASC, SPA, and Guam Teacher Professional Standards. Effective fall 2008, candidates must take the PRAXIS II. In the Elementary Program, results of Post-test assessments of content knowledge in science and mathematics for elementary school teachers reveal that 40% teacher candidates scored at the unacceptable level in mathematics and 35% unacceptable in science. These scores have been attributed to the integration of science and math into one course which provided insufficient time to cover course content in both subjects. In 2006, a substantive change was approved to remove the course and replace it with two separate courses, ED354 Science Methods and ED356 Math Methods.

Elementary candidates' performance data revealed a lack of skills in data collection processing, and interpretation. To address these weaknesses, the program developed a

new course as a related area requirement. ED486/486G: Building Effective Strategies in Teaching, an action research course, focuses on classroom-based research to improve practice by building effective strategies in teaching. Course implementation will be fall 2009.

In the SPA report for the initial Special Education program, The Council for Exceptional Children (CEC) recommended that multiple methods of reading should be taught in the SPED program. Based on the SPA recommendation, ED449 Direct Instruction Teaching Strategy was removed as a program requirement and made an elective to those who might be interested in this specific method.

During the fall 2007 faculty retreat, the Unit and stakeholders reviewed the Assessment Data Report (ADR) for the previous year and made the following findings and changes. Exit surveys indicated candidate frustration with identification of their advisors. Students are now assigned an advisor during their first semester in the program and lists of student advisees are listed on faculty office doors. A letter is sent to the student notifying him/her of the advisor's name and requesting that the student schedule an appointment to complete/review a program plan. The School has recently instituted Advisement Week (v.) to emphasize the importance of advisement and to actively recruit and engage students in the advisement process.

Exit surveys also revealed candidates' need for timely communication about program changes. To respond to this need, a large bulletin board (x.) in the SOE hallway displays announcements and program information. To meet candidates' concern about the short time span between student teaching application meeting and application deadline, the meeting is now scheduled one semester prior to the deadline for application. The revised timeframe provides sufficient time for candidates to complete their student teaching application (portfolio, application, and PRAXIS II scores) before the deadline for submission. Candidates' requests for additional LiveText training and consistency of faculty application has resulted in the incorporation of LiveText training in the educational technology course for undergraduates. All full and part-time faculty is required to participate in LiveText training sessions and show evidence of competence in use of the system.

At the Advanced level, the graduate course syllabi have been aligned with the Conceptual Framework, SPA, GTPS, and NBPTS standards. In exit surveys, Administration and Supervision graduates expressed the need to learn more about special education law and its implications for school administrators. The program added Special Education Law as a course elective effective January 2007. Based on results of candidates' exit questionnaires, the Language and Literacy program faculty has embedded additional strategies for English Language Learners into their courses.
To ensure that graduates demonstrate content knowledge expected of a highly qualified teacher, effective fall 2008 the Special Education advanced program has required all students to pass the Praxis II (0353) in special education. Effective fall 2009, all advanced programs will require PRAXIS II. Standard rubrics for thesis/special projects

and oral defense have been developed and implemented to provide consistency in evaluation of these assessments across the programs.

During the November fall 2008 Educators Summit, faculty and stakeholders made the following recommendations based on the review and analysis of the Fall 07-Spring 08 Assessment Data Report (ADR):

At the initial programs entry level, transcript data reveal that overall content knowledge should be stronger. One recommendation is for applicants to seek tutoring with Americorp, as needed. The Unit will further discuss this issue and determine additional recommendations for those have earned low grades on content area courses at the point of admission. Another finding is that pedagogical knowledge appears inflated. Again, the Unit will review and discuss to determine the causes and possible solutions. While content knowledge appears consistent with high ratings on candidates' disposition ratings, it was recommended that the Unit compare dispositions at the exit point to determine if the trend continues. Findings also reveal that writing skills are not aligned with candidate performance on content knowledge at the entry level. The Unit will examine this finding to determine the discrepancy. Data reveal that a small number of applicants do not meet the writing benchmarks for admission. The recommendation is to require these applicants to retake developmental writing classes and to seek additional support to improve writing skills. Data reveal a larger percentage of failure rates on the PRAXIS I among Early Childhood and Elementary candidates. It is recommended that applicants enroll in PRAXIS I preparation training or courses. To ensure timely collection and evaluation of Midpoint data at the initial and the advanced program levels, the recently instituted SOE Midpoint Committee will be advised to provide regular reports to the Executive Director and the Assessment Committee. At the exit point, data reveal a high percentage of unacceptable ratings for INTASC #10 for initial program candidates. The recommendation is to modify ED192 Practicum: Observation & Participation to strengthen candidates' reflection skills. While the Unit has no control over the resources and mandates of GPSS, results of exit surveys indicate that graduates would like to see increased technological resources in the public school system and flexibility in the use of instructional methods in their schools. To strengthen data collection and analysis of exit survey data, the recommendation is to add a qualitative component to describe strengths and weaknesses of the Unit and programs.

5. How are assessment data shared with candidates, faculty, and other stakeholders?

Faculty conducts ongoing formative evaluation of candidates' performance as they proceed through the program courses. They identify weaknesses so assistance can be applied in a timely manner. Summative evaluation at key assessment points ensure that applicants and candidates are qualified to move on to the next stage of their program or to graduate. Results of key assessments are available to candidates on LiveText and candidates receive the scored rubrics with feedback in their Live Text accounts.

Candidates receive on-going feedback about performance levels through grades, evaluations of key assessments and course portfolios on LiveText, and in advisement meetings with program faculty. Candidates receive feedback on student teaching performance during triad meetings with classroom and university supervisors. Triad meetings are conducted at the school site or during student teaching seminars at the University. Formative assessment of dispositions is evident in the feedback given by course instructors through the use of the disposition rubrics. The dispositions of candidates are also formally screened upon admission and at the midpoint. Data are compiled regularly and summarized via the ADR and used for formative and summative review. These data are shared with faculty and used: (1) to reflect on the progress of candidates within programs, (2) to assess overall candidate proficiencies at the points of admission, mid-point, and exit, and (3) to determine particular program affects and how programs can be improved. Effective spring 2009, faculty will meet to provide feedback on assessment instruments and to discuss whether any changes are warranted. Assessment data (ADR) from the previous year are regularly shared for discussion and feedback with stakeholders during fall semester NCATE Retreats with faculty, Advisory Council, SOE student representatives, administrators. CNAS and CLASS faculty and other representatives from the UOG community.

6. (Optional) One or more tables and links to key exhibits related to the use of data for program improvement could be attached here. Data in tables should be discussed in the appropriate prompt of 2c. (Links with descriptions must be typed into a Word document that can be uploaded here. The number of attached exhibits should be limited in number; BOE members should access most of the exhibits in the unit's electronic exhibit room.)

Optional

a. **1. What does your unit do particularly well related to Standard 2?**

Valuing and honoring diversity is at the heart of what we do best at SOE and this strength was also noted in the BOE exit report. In assessing SOE candidates, faculty addresses diversity by using multiple assessments appropriately and flexibly in response to the cultural and instructional environment in which we are situated. Faculty and students alike build upon cultural values and beliefs in all aspects of their assessment practices. For example, a key element of Pacific Island cultures is their orality. Emphasis is on the spoken word wherein stories are told to living audiences and remembered through their retellings rather than through reading and writing as in a literate culture. Faculty honors this tradition by utilizing a broad assortment of assessment skills and tools, including technology, in their teaching that maximize the opportunities for students to demonstrate their competence in a variety of ways. In modeling and using these assessment practices, faculty encourages and teaches SOE candidates to become more responsive to the assessment needs of P-12 students in

culturally and linguistically diverse classrooms.

SOE takes special pride in our accomplishments in meeting an integral part of the University and SOE mission to serve learners and communities in Guam and the rest of Micronesia. Micronesia is the collective name given for two thousand tiny tropical islands scattered over more than three million square miles of the Pacific Ocean. The eight island groups that form Micronesia are Guam, the Republic of Palau (Belau), the Northern Marianas, Ponhpei, Yap, Chuuk, the Marshalls and Kosrae - each unique group with its own culture, language, history. Guam is a United States territory; the Republic of Palau and the Marshalls are independent nations; the Northern Marianas is a commonwealth associated with the United States; and Pohnpei, Yap, Chuuk and Kosrae are combined as the Federation States of Micronesia, which exist in an agreement of free association with the United States.

The University and SOE are proud of our graduates from Micronesia, which include a number of island leaders throughout the region who have obtained their education degree on-campus at the University or through our outreach initiatives. Since 1979 SOE has helped in-service teachers in the Federated States of Micronesia, the Republic of Palau, Commonwealth of the Northern Marianas, and the Republic of the Marshall Islands obtain an undergraduate degree in education from the University of Guam through the Independent Degree Plan (IDP) described earlier in the report. IDP provides islanders the opportunity to complete their education degree without having to leave their islands and take leave from work to pursue higher education.

Another way in which SOE serves our island neighbors in Micronesia is through the the Partnership BA Program in Elementary Education also described earlier in the report. The program is offered on the College's main campus, but attracts students from other Federated States of Micronesia which include Yap, Chuuk, Pohnpei, and Kosrae. In Fall 2008, the program saw its first cohort of graduates with 7 students receiving their BA degree, including one student who completed her coursework at UOG and returned to Pohnpei where she completed her practicum under the partnership program and with COM-FSM faculty supervision. During COM-FSM's spring 2008 graduation at the National campus, UOG President Dr. Robert Underwood addressed the partnership BA students through a prerecording captured from a live videoconference he delivered from his office via the Peacesat videoconferencing network. Twelve possible candidates for the program are being reviewed to do their student teaching and internship during spring semester 2009. This cohort is expected to graduate by May 2009.

2. What research related to Standard 2 is being conducted by the unit?

Chemistry Department

Assessment Report/Update

July 8th 2008

Chemistry Department Assessment Report/Update

July 8ᵗʰ 2008

Background

The chemistry department assessment was drawn from the program objectives that were presented as the Chemistry Program Assessment plan in 2007. These program objectives covers the five major categories as stated below.

A. Demonstrate the knowledge of fundamental concepts of chemistry and its relevance to the scientific method and other fields in science
B. Demonstrate the skills to make observations, experimentation, collect and collate data, analyze and interpret data.
C. Demonstrate the ability to clearly articulate, formulate, and communicate scientific information.
D. Demonstrate critical thinking, problem solving skills and the ability to use chemical knowledge and mathematical skills to identify, evaluate, analyze, synthesize, and integrate data and abstract ideas in solving problems.
E. Demonstrate the knowledge and skills in advanced instrumentation, applications, interpretation, and experimental design to address scientific queries in chemistry, industry, the environment, health, and related fields.
F. Demonstrate a sense of exploration and research approach that enables students to pursue lifelong learning in chemistry.

From the stated program objective, the category on demonstration of critical thinking skills, problem solving, mathematical skills, integration and interpretation of data as listed under objective D was selected for the programs assessment plan. This objective was refined to a specific goal on demonstration of the student's ability in quantitative reasoning and skills for solving chemistry related problems. During the selection and refining of the program goal for assessment, the need for refining the program objectives and goals was realized. This resulted in the extension of the list of program objectives. In the process we have also changed the titles form objectives to goals and under each goals we list the main objectives. There were 7 major arrears of learning identified and these are listed as goals. Under these goals we have listed specific objectives that are measureable, see attachment 1.

Goal

From the revised goals, what we planned to assess is now listed in Goal #4 and the specific objective was Objective #2. It states that 'students should be able to solve qualitative and quantitative problems'.

Assessment Method

The chemistry program faculty held consultations on the assessment method to be used. One approached used was pre- and post-test. For multiple section courses we used the same pre- and post test. Drs. Balakrishnan and Vuki conducted pre- and post-test for CH100, CH102, and CH103. Dr. Suleman conducted pre- and post-test for CH310a and CH310b. The results for these tests are discussed below.

The test format for Drs Bala and Vuki were a set of multiple choice questions that covers topics covered in the respective courses.

The second assessment method used was analysis of specific questions that deals with quantitative skills form the normal exam. This method saves the effort on preparing a separate set of questions, but it involves keeping copies of the exam scripts to carry out data analysis.

The third assessment method involves giving embedded questions in a normal exam. We are currently conducting assessment on this method and no data is available but we are reporting on the results from the two methods stated above.

Assessment Rubrics

The analysis of the test results were carried out under a scoring rubrics chart that the chemistry department adopted and refined to suit our program objectives. The assessment rubric was not only used for the testing methods highlighted above, but also for other student work such as laboratory reports, student seminar, and laboratory exam. The rubric is as shown in the attachment 2 document. It must be noted that the use of assessment rubric was new to most of the chemistry program faculties.

Assessment Results

The results from the pre- and post-exams for CH100 are as shown below. The first plot (Figure 1.0) is the average score for the same group of students for the pre-test vs post-test.

Figure 1.0. Average score for the CH100 student at pre-test and post-test.
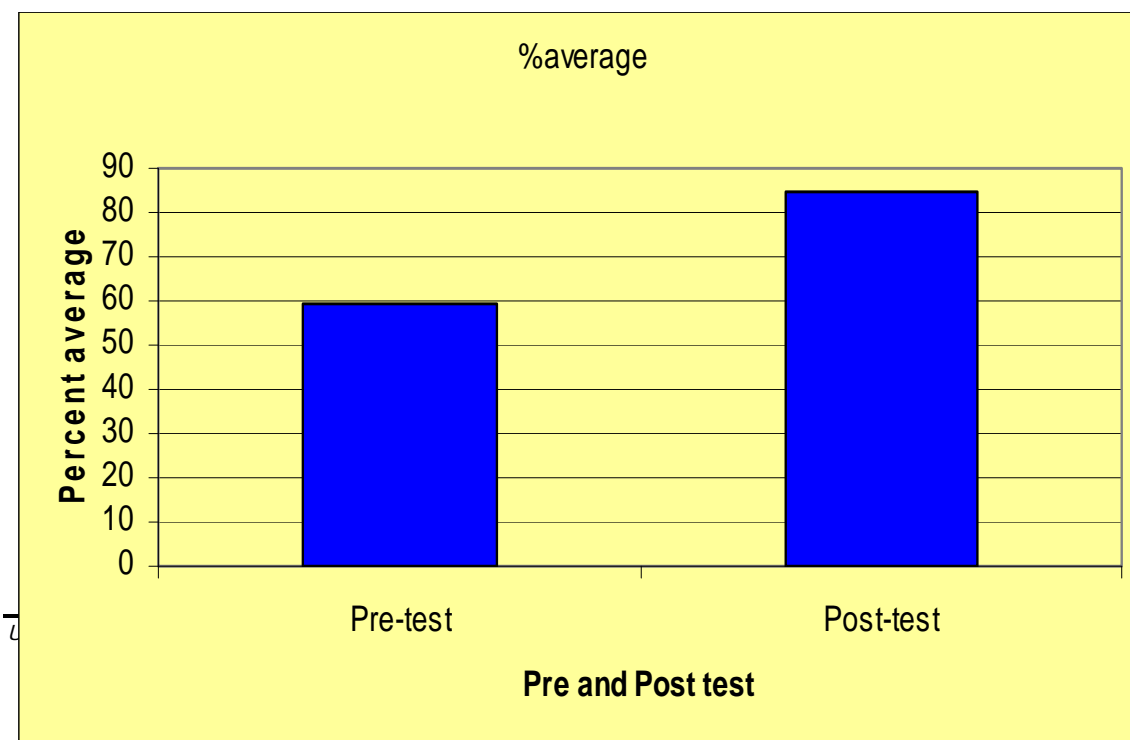
The results show a general improvement on student's performance. However, the level of improvement is not so significant considering that many of them show adequate level of subject knowledge from the pre-test results of about 60%.

The same set of results from Figure 1.0 was analyzed under the assessment rubric. Since the focus of the assessment was quantitative skills, a selection of quantitative questions from the test was identified and applied under the rubrics. The results is as plotted in Figure 2.0

Figure 2.0. Pre and Post Test analysis for CH100 under the assessment rubric. Plot of difficulty factor as a function of learning categories.
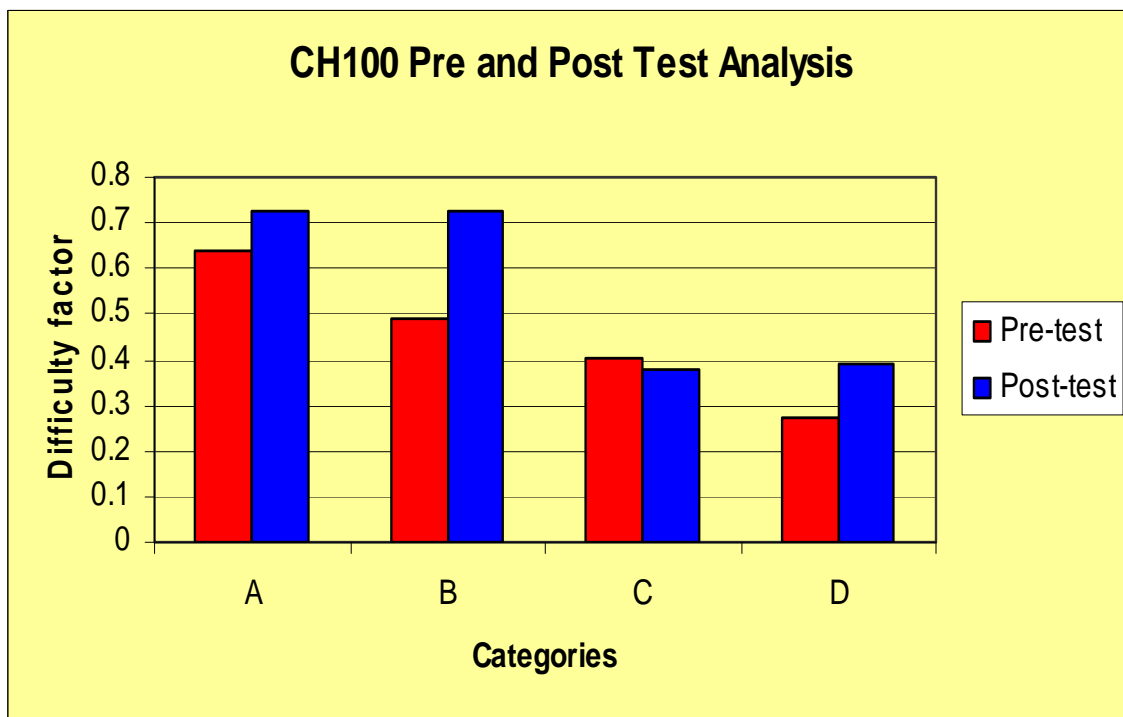

Figure 2.0 clearly show that students performed better under categories A and B compared to categories C and D. While post test appears to show slight improvement under categories A, B, and D there was no clear improvement under C. Overall the results clearly show the low score under categories C and D. This conforms some of our initial assumption that students have difficulty in integrating several key concepts to arrive at the final answer.

The difficulty factor is the ratio of students who scored the correct answer in a particular question over to the total number of students. High difficulty factor scores indicate that students have better understanding and skills for solving the problem.

The same set of analysis was conducted for CH102 and the results are as shown.

Figure 3.0. Average scores for the pre- and post test for CH102 students.
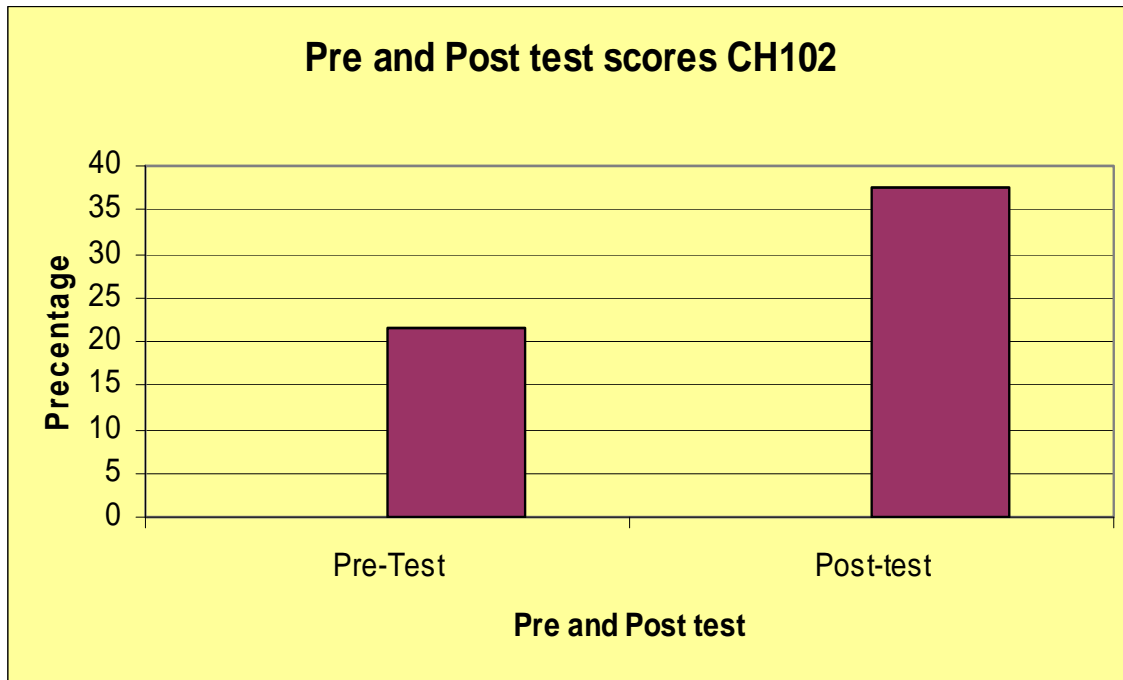

Figure 3.0 show improvement in the average scores from pre-test to post-test. However, what is obvious is the low percentage in both tests. While this datum does not present a very promising learning outcome, it provides an important lesson to the assessment approach. When these tests are not considered to be part of the student's final grade, the tendency is for students to guess or ignore the outcome. As a result, the scores show very low overall scores.

Figure 4.0 show the analysis of specific questions using the assessment rubrics. The plot shows remarkable improvement for category A but not as high for categories B and C. Category D show no improvement and overall score is also very low.

Figure 4.0. Pre and Post Test analysis for CH102 under the assessment rubric. Plot of difficulty factor as a function of learning categories.

Pre- and Post- Test analysis CH102
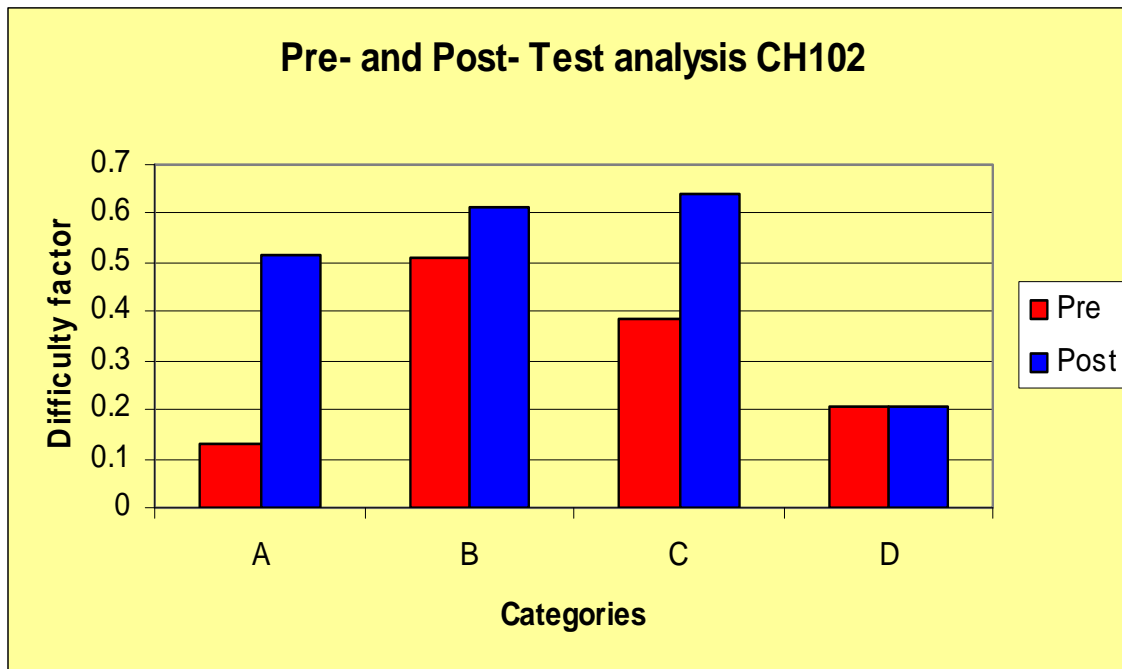
Results from analysis of normal exam in the CH103 course also show similar trends to what is shown from the CH100 and CH102 results. The students generally have low score for category D.

In summary, the students generally score better in the post exam which does indicate the gaining of skills. However, the level of gain students may not be very conclusive due to the uncertainty in our methodology. Students also show difficulty in integrating and synthesizing information to solve problems. This could be due to several factors and the department will further look into some issues such as entry level of our students, content of our courses, and our delivery methods.

However, based on these finding we are able to identify some key areas that could be improved in our courses.

Improvements

1. Emphasize key problems that involve synthesis if information in the course reviews and give more worked out examples.
2. Review syllabus and identify where more emphasis is needed.
3. Give regular quizzes to engage student on the level of requirement.
4. Split final exams into two sections. One to be administered in the middle of semester covering the completed topics and the second at the end of semester that will cover the rest of topics.
5. Conduct assessment with American Chemical Society Standard Exams.
6. Record Review sessions on video or DVD so that students can review at their own pace and hence spend more time in understanding the concepts.
7. Set up a resource center that student could access help, books, tutors, software.
8. Refine the test questions for assessment and conduct assessment.