2012

Hoʻokahi Ka ʻIlau Like Ana: Wield the Paddles Together



Academic Program Review

This document constitutes a proposed revision to the current guidelines housed within the Office of the Vice Chancellor of Academic Affairs. This revision was developed as a response to faculty concerns about the efficacy and the lack of purpose in the current process.

This simplified and reorganized text was developed through extensive research of existing "best practices" and under direct mentorship from WASC at the 2012 Program Review Retreat.

In the spirit of our new 2011-2015 Strategic Plan: *ʻAʻohe pau ka ʻike i ka hālau hoʻokahi*/*One learns from many sources.* This document helps us build our university community by encouraging meaningful learning and teaching across disciplines and academic interests. But given the relatively early stages of our cognition of institutional learning outcomes (ILOs) and the incorporation of assessment at multiple levels, this iteration is meant to be the first step. The first cycle detailed in this document allows departments and programs to target ILOs and to gradually build meaningful assessment in a manner that can answer the fundamental questions as to why we do program review: what we do, how well we do it, and how we achieve broader university-wide goals?

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University of Hawaiʻi at Hilo
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Academic Program Review

Preamble: Why Do Program Review?

Through the program review process, faculty examine what we do and how well we do it, so we can better achieve broader university-wide goals.

The title of this document is taken from Mary Kawena Pukui's *ʻŌlelo Noʻeau: Hawaiian Proverbs & Poetical Sayings.* The term is used to describe the mandate of working together for a common, collective purpose.

WASC Accreditation Standards

2.7 All programs offered by the institution are subject to systematic program review. The program review process includes analyses of the achievement of the program's learning objectives and outcomes, program retention and completion, and, where appropriate, results of licensing examinations and placement, and evidence from external constituencies and professional organizations.[1]

Academic Program Review Schedule

The Academic Program Review Schedule is set by the Vice Chancellor for Academic Affairs, with the intent that the cycle repeats itself every seven years.

What are the Major Components of a Program Review?

I. Mission Statement and Goals of the Department or Program

A mission statement is a general explanation of why your program exists and what it hopes to achieve in the future. It articulates the program's essential nature, its values, and its work. Goals are general statements of what your program wants to achieve.

II. Secondary Accreditation (if applicable)

Colleges, Departments, and Programs are encouraged to coordinate specialized program accreditation processes (i.e. ABET, AACSB, NASPE) with institutional program review processes to avoid duplication of labor. If this is the case with your program, please state the goals and requirements for specialized accreditation here.

III. Executive Summary by Dean, Department Chair, or Program Chair

An executive summary typically interprets quantitative and qualitative data (addressed in the next sections) as evidence of program performance. Its purpose is to encapsulate a program's strengths, weaknesses, and opportunities for improvement. This summary also incorporates annual Progress Reports (see "What happens to Program Review and the MOU" following

[1] Also in accordance with UH Executive Policy E.202, Review of Established Programs.

section VII below) on the previous Program Review and the Memorandum of Understanding (MOU), which is discussed in section VII. Questions to consider:

- What functions does the College/Department/Program serve for students, for the larger Institution, and/or for the Community?
- How has the College/Department/Program and/or mission changed since the last MOU from the previous Program Review?
- What has been done by the College/Department/Program since the last MOU?
- What has administration done to address items in the action plan since the last MOU?

More suggestions for the executive summary can be found in **Appendix A**.

IV. Program Organization
- Background
  - A brief history of the program and its degrees, if any. (e.g. Describe the multiple degrees, certificates, or different major tracks offered students, and program goals)
  - How does the program support the mission of the College and University?
- Program Components (See **Appendix B**)

V. Evidence of Program Quality

This is where programs have the opportunity to demonstrate their strengths. This section contains:

- Quantitative Data and Tables
  Pre-formatted Data Reports are provided by the institutional research officer (**See Appendix C**). Programs are encouraged to include a brief analysis of the data.
- Evidence of Student Success
  - Assessment-based evidence of Student Success, including a compilation of Annual Assessment Projects, a Curriculum Matrix that aligns ever increasing levels of student learning outcomes with courses, and an Annual Assessment Plan (**See Appendix D**).
  - Other Evidence of Student Success (**See Appendix E**)
- Evidence of Faculty Quality (**See Appendix K**).

VI. Future Program Goals and Resource Requirements
- Future Goals
- Current and Future Resource Requirements (e.g. academic support for faculty, operating budget, space and facilities for teaching and research, new hires, lecturer/instructional support, equipment, library acquisitions, technological support, etc.)
- Program Chair Evaluation

VII. External Reviewer's Report

Programs may also choose to include within this section an optional short response to the Reviewer's comments, or they may choose to address them in their meeting with the administration. (See **Appendix L** for more information on the External Review process.)

VIII. Memorandum of Understanding (MOU)

Academic Program Review is intended to serve as a basis for informed decision making, particularly with respect to planning and allocating limited resources. An essential part of this process is the Memorandum of Understanding, wherein programs and the administration agree upon program strengths, weaknesses, future directions and goals, and the responsibilities of each towards achieving those goals. The MOU is negotiated between the program and the administration. The MOU is posted on the VCAA website and forwarded to the Faculty Congress through the Academic Program Review Advisory Committee. Programs are encouraged to consult with the Advisory Committee on their MOU prior to its formulation. Recommendations within the MOU are to be integrated into UHH planning and resource allocations.

What happens to the Program Review and MOU?

Each Program Review and MOU is kept in the office of the Vice Chancellor for Academic Affairs. To ensure these once-per-cycle MOUs remain useful (i.e. current and relevant), and to identify continued progress made by both parties regarding the stipulations found therein, programs will be allowed to submit very brief Annual Progress Reports. These Reports will be submitted to both the Administration (including Deans/Division Chairs) and to the faculty driven Academic Program Review Advisory Committee.

The Annual Reports should be encapsulated in 1-2 page narratives that document discussions undertaken by the faculty, the Chair or Director, the Dean and the Vice Chancellor for Academic Affairs, and provide the program the opportunity to address (1) What has been done by the program since the previous year? (2) What has administration done to facilitate program success since the previous year? and (3) What deficiencies and problems have emerged since the last MOU? These short reports serve as routine follow-ups to the Memorandum of Understanding that starts every cycle. To assist this process further, pre-formatted data reports will be provided to each program annually by the institutional research office to assist programs in identifying changes or new trends. (An Annual Progress Report Template can be found in **Appendix J**.) These annual reports can then be compiled to contribute to the body of the larger, cumulative [subsequent] Program Review (which is submitted every seven years).

Annual Reports should involve collective input by the entire unit and should be sent to involved parties, including the Academic Program Review Advisory Committee, which serves to ensure the consistency of policy across the institution. Programs that choose to do so should submit their annual report by the end of the Fall Semester, with feedback from the Dean and VCAA received no later than the following March 1.

Academic Program Review Timeline

This timeline documents a 7-year process that begins the first year subsequent to the review and culminates in a Memorandum of Understanding (MOU) that then serves as the guide for the future course of the Department or Program. Most programs viewing this document for the first time will be most interested in AY6, the year prior to the review, and AY7, the year of the review.

AY1: First annual review of Data from IR
Assessment of Selected Learning Outcomes
Annual Report
First response to the Action Plan (from the previous MOU)

An action plan is a seven-year plan developed by the faculty to guide a seven-year process of improvement.

AY 2-5: Annual Reviews

Ongoing annual review of data by IR
Assessment of Selected Institutional Learning Outcomes
Annual Report

AY 6: Annual Review of Data & Preparation for Program Review
Final Annual review of data by IR
Assessment of Selected Learning Outcomes
Annual Report

Jan: Vice-Chancellor of Academic Affairs formally notifies the Department of upcoming Program Review (to include appropriation of resources for Program Review)
Spring: Dean or Chair and Faculty begin compiling the Program Review
April: IR provides comprehensive institutional data to Department Chair and faculty for review

AY 7: The External Review and the Drafting of the MOU

Aug: Department Chair submits prospective name(s) and schedule for external reviewer

Fall Semester:

Dean or Chair and Faculty finalizes compiling the Program Review
External Reviewer visits and evaluates the Department or Program (Alternately, the External Reviewer visits and evaluates in early Spring, which compresses the subsequent timeline below. Programs are encouraged to schedule the External Reviewer visit for the Fall.)

Spring Semester:

Jan: External Reviewer will have submitted findings to the College, Department, or Program as well as to the Academic Program Review Advisory Committee and the Office of the Vice Chancellor for Academic Affairs. The College, Department, or Program will distribute this report to their faculty for input. The Academic Program Review Advisory Committee may also provide recommendations and suggestions for further consideration by the faculty in the unit undergoing Program Review.

Mar: The Department or Program collectively responds to the reports from the external reviewer and Academic Program Review Advisory Committee, either for inclusion in the final report or for use during discussions with the administration regarding the MOU.

April: The VCAA, Dean, Chair, and faculty in the Department begin drafting an Action Plan resulting in an MOU.

May: MOU is signed and the action plan starts the next 7-year cycle for improvement.

List of Appendices

A. Executive Summary
B. Program Components
C. Quantitative Data and Tables
D. Student Learning Assessment
E. Other Evidence of Student Learning
F. Rubrics for the ILOs – Information Literacy, Communication, Quantitative and Scientific Reasoning, and Cultural Diversity
G. Curriculum Matrix
H. Sample Assessment Plan
I. Assessment Report Template
J. Annual Progress Report Template
K. Evidence of Faculty Quality
L. External Review Process
M. References

APPENDIX A: Executive Summary

A

Ideas for inclusion in the Executive Summary: The following are provided to stimulate thought and will not be relevant to every program. Since the executive summary is by definition abbreviated, the discussion of each of these chosen for inclusion should necessarily be brief.

- The results or impact of the prior program review. Progress by the department in meeting its action plan within the last MOU, progress by the administration in supporting the same action plan.
- National trends in the major.
- Growth or decline in the number of tenure-track or tenured faculty, instructors, or adjunct faculty since the last program review.
- Notable trends since the last program review in the numbers of majors, enrollment patterns, student/faculty ratio, retention data, or enrollment caps.
- Notable student successes –covered in more detail within subsequent sections.
- Brief overview of faculty productivity in instruction, scholarship/creativity, and service to UHH – covered in more detail in subsequent sections.
- Brief overview of significant community service – covered in more detail in subsequent sections.
- Deficiencies in departmental expertise, if any. Are you currently pursuing new faculty lines?
- Special accreditation or other external evaluation.
- Faculty commitment to diversity issues.

APPENDIX B: Program Components

B

Ideas for inclusion in the Program Components Section: The following are provided to stimulate thought and will not be relevant to every program.

- How the department organizes its curriculum to meet Major program requirements, provide service and General Education courses, and achieve program efficiency.
- A more detailed explanation of the growth or decline in the number of tenure-track or tenured faculty, instructors, or adjunct faculty since the last program review.
- Curriculum changes since the last program review or a short overview of how the program has determined that its curriculum is current and relevant. Discuss necessary changes anticipated for the future.
- Are the department's programs fulfilling state, regional, and national needs and expectations?
- Is the curriculum adequate to meet the needs of the diversity and number of student majors and students in service courses?
- How up-to-date is the curriculum for current and future students seeking careers inside and outside of academia?
- How does the quality of the curriculum (e.g. comprehensive and integrated among courses from 100-level through 400-level, within its stated goals) compare to those recognized as highly effective curricula by regional and national scientific and educational societies?
- How does the curriculum compare with similar departments at 4-year liberal arts colleges, comprehensive regional universities, and major, tier 1 universities with Ph.D. programs?
- Is the department serving non-majors to the satisfaction of the students and faculty across the campus?
- How is the department ensuring it is in compliance with the UHH Credit Hour Policy, particularly for its non-traditional courses, such as labs, directed readings, practica, internships, online or inverted lecture, service learning, etc? Note: the Credit Hour Policy states:

  Regardless of the type of academic activity, schedule, or method of delivery, one credit hour at UHH represents the expected amount of work a student must expend to achieve intended learning outcomes consistent with that of a traditional course (i.e. one that meets one hour per week, with a minimum of two hours additional work such as preparation, research, homework, investigation, etc. over the course of an approximate 15 week semester).

APPENDIX C: Quantitative Data and Tables

C

This section details the quantitative evidence, most of which is required by the University of Hawai'i system. This data may help Colleges, Departments, or Programs track the size of their major, changes in course caps, contributions to system and graduation requirements, linkages with other programs and certificates, and other such factors that impact the quality of student learning. This data, along with yearly assessment results, can help faculty evaluate the quality of instruction and course delivery.

Institutional Research (IR) will provide the following data on an annual basis to Deans, Department Chairs, or Program Directors to be used to look for trends for inclusion in the annual Progress Reports. A compiled report will then be provided in the final year prior to the drafting of the MOU, for inclusion in the Program Review. Division Chairs may also be asked to assist with data collection.

1. Student Quality and Funding Information

    a. Admission Scores
    b. Pell Grant recipients

2. Student Count Information

    a. Number of Majors
    b. Number of Minors
    c. Number of Certificates
    d. Contributions to other Programs and Certificates

3. Course Offering Information

    a. Number of Student Semester Hours (SSH)
    b. Number of Full Time Equivalents (FTE) Course Enrollment (SSH divided by 15 for undergraduate and by 12 for graduates)
    c. Number of classes and sections of classes offered
    d. Number of Writing Intensive (WI)
    e. Number of GE Courses
    f. Number and type of courses utilizing alternative delivery methods (e.g. online, reverse lecture, etc.)

4. Course Delivery

    a. Average class size
    b. Number of Full Time Equivalent (FTE) faculty
    c. Number of Adjunct (Contingency) Faculty
    d. Number of Courses and SSH taught by Full Time Faculty
    e. Number of Courses and SSH Taught by Adjunct Faculty
    f. FTE student-faculty ratio

APPENDIX C: Quantitative Data and Tables

C

5. Graduation and Placement

    a. Number of overall graduates
    b. Number of Native Hawaiian graduates
    c. Student placement

6. Cost of Delivery

    a. Budgetary allocations
    b. Cost per SSH

APPENDIX C: Quantitative Data and Tables

C

	AY 1	AY 2	AY3	AY 4	AY 5	AY 6	AY 7
1. Student Count Information (per academic year)							
a. Number of Majors							
b. Number of Minors							
c. Number of Graduate Students							
2. Annual Course Information							
a. Student Semester Hours Taught (SSH)							
b. Full Time Equivalent (FTE) (SSH divided by 15 for undergraduates, and by 12 for graduates)							
c. % FTE own majors							
d. % FTE majors within college							
e. % FTE all others							
f. % FTE Writing Intensive courses							
g. % FTE GE courses							
4. Course Delivery							
a. Average class size – Brick and Mortar (computed as # registrations / # classes)							
b. Average class size – Distance Learning							
c. Number of FTE Full Time Faculty							
d. Number of FTE Adjunct Faculty							
e. % SSH taught by Full Time Faculty							
f. % SSH taught by Adjunct Faculty							
g. FTE student-faculty ratio (FTE course enrollment / FTE total faculty)							
5. Graduation and Placement							
a. Number of graduates/degrees earned							
b. % of majors graduating							
c. Number of Native Hawaiian graduates							
d. Number of Certificates awarded							
6. Cost of Delivery							
a. Budgetary allocations							
b. Cost per SSH							

APPENDIX C: Quantitative Data and Tables

C

A. List degrees (include tracks, options, and areas of specialization), minors, certificates, etc. offered by your program on Table 4A. (Please asterisk core courses that every major must take in order to meet major requirements in the program.)

Table A – Degrees, Tracks, Options, Specializations, Certificates, Minor			
Specific Courses Required in the Major	Tracks / Options / Areas of Specialization	Certificate Courses	Minor Course Requirements

B. List GE courses provided by your program. (See http://hilo.hawaii.edu/academics/gened/)

Table B – GE Courses (Provided by Institutional Researcher)									
Course (Alpha #)	*Frequency	Yearly Sections	**Yearly Enrollment						
			1	2	3	4	5	6	7

*Frequency: sem - every semester, yr – once a year, infreq – infrequently
** Yearly Enrollment: Total yearly enrollment for the GE course for the past 7 years.

C. List service courses your program provides for other programs. For example, the English program provides Eng 225 Writing for Science and Technology for science majors. Include cross-listed courses where your program provides the course for the cross-listed program.

Table C – Service Courses (Provided by Institutional Researcher)											
Service Course Alpha #	For What Program?	Frequency	Yearly Sections	Yearly Enrollment							
				1	2	3	4	5	6	7

D. Show a sequence of courses that would enable a freshman to graduate with your major in four years. (XXX No longer necessary???)

Table D – Four-Year Course Sequence for Majors							
Year 1		Year 2		Year 3		Year 4	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring

APPENDIX C: Quantitative Data and Tables

E. Faculty Productivity

Table E – Faculty Productivity

Instructional Productivity – Current Year

Faculty Rank	#	SSH Yearly	Total # Courses Taught Yearly	#Courses Per Faculty	Comments (e.g. Upper Division, Lower Division, Graduate Level, Comments if this is not a typical year)
Full					
Assoc					
Assist					
Inst					

Creative/Scholarly Activities

Faculty Rank	#	Since your last program review, include the number of refereed publications (RP), book chapters (Ch), books (B), other publications (OP), and grants received (G – number/total dollar amount). For faculty promoted during this time period, include contributions at the rank in which the contribution was made.				
		RP	Ch	B	OP	G (#/$)
Full						
Per Fac.						
Assoc						
Per Fac.						
Assist						
Per Fac.						
Inst						
Per Fac.						

Service Activities – Typical Involvement since the last Academic Program Review

Faculty Rank	#	Committees / Year	Community Projects / Year	Events/Year	Comments
Full					
Assoc					
Assist					
Inst					

APPENDIX D: Student Learning Assessment

D

This section outlines evidence of student learning, including assessment requirements. Since assessment is our most challenging and difficult requirement, this section offers in-depth details of the types of qualitative and quantitative evidence that is used in evaluating the performance of a College, Department, or Program within this framework**.**

Student Learning: An Introduction

Our vision for 2020, per our new Strategic Plan, challenges us to become "a university community that works together across disciplines and diverse perspectives to prepare student scholars to thrive, compete, innovate and lead in their professional and personal lives." This aspect of Academic Program Review presents Colleges, Departments, and Programs with the opportunity to demonstrate how they are facilitating that learning, and helping students achieve desired program and institutional learning outcomes. As stated on the cover page, this first 7-year Program Review cycle detailed in this document stipulates Colleges, Departments, and Programs to target Institutional Learning Outcomes (ILOs), with the option of also targeting their Program Learning Outcomes (PLOs). Please refer to **Appendix F** for the rubrics for Information Literacy, Communication, Quantitative and Scientific Reasoning, and Human Interaction and Cultural Diversity.

Colleges, Departments, and Programs can choose to target two of the following ILOs over the next seven years per an annual assessment plan. Units may choose the same ILOs every year based on their mission, or they may choose to assess a variety of these ILOs.

1. Information Literacy/ Critical Thinking
2. Communication/ Critical Thinking
3. Quantitative and Scientific Reasoning /Critical Thinking
4. Human Interaction and Cultural Diversity (including an understanding of Hawai‘i's indigenous history)
5. Collaborative Skills and Civic Participation (Applied Learning) Engagement and Applied Learning
6. Other learning goals (e.g. PLOs) as determined by programs/departments/colleges (which is not required for this current cycle)

Results will be compiled into short, annual assessment reports that will help faculty and administration engage in a yearly dialogue on program performance and student learning, including how assessment results are used to revise teaching methods and/or curriculum as needed (i.e. "closing the assessment loop"). Any such changes need to then be re-assessed to determine their efficacy. (Please see **Appendix I** for an Assessment Report Template.) These assessment reports can also be included in the Annual Progress Reports (**See Appendix J**).

Assessment

Assessment begins with an inventory of courses vis-à-vis General Education and the Major/Minor. Colleges, Departments and Programs should start with a **Curriculum Matrix**, which (1) helps faculty to visually map the sequencing of courses from the introductory level to increasing stages of proficiency,

and (2) aligns the sequencing of courses with increasing levels of student learning. The Matrix also outlines how courses meet ILOs and Program-specific goals. **(See Appendix G for a sample matrix with ILOs. Please note that the example is generic and is not meant to be prescriptive. More examples will be available through the Academic Program Review Advisory Committee.)**

A multi-year Assessment Plan further aids Colleges, Departments, and Programs to manage the work needed to undertake annual assessment. Annual assessments must not exceed the ability of faculty to engage in this work, nor exceed the resources available to the Program or Department. **(See Appendix H for a Sample Assessment Plan)** Particular attention should be paid to ensure that courses delivered in a non-traditional manner such as online, hybrid, and reverse lecture achieve student learning success at comparable levels with those delivered in the traditional manner.

Once the Curriculum Matrix is devised, Colleges, Departments, and Programs must then develop methods for evaluating student work or performance to see if it is at the level indicated in the matrix. Examples of direct assessment are as follows:

1. Utilizing an identical embedded question or problem across multiple sections with multiple teachers.
2. A sampling of research papers from different levels of classes.
3. Capstone classes may collect student portfolios that allows faculty to assess student mastery of skills over time.
4. Multiple faculty observations of student performances.

Colleges, Departments, or Programs may also deploy indirect assessment (such as focus groups, surveys and reflective essays) to enhance their understanding of how students learn and how to improve their learning. Obtaining feedback from students on their learning can provide faculty with additional insight that may escape faculty attention.

Compilation of Annual Assessment (Indirect and Direct) Projects

This section is a compilation and analysis of the annual assessment projects outlined above.

The data should be accompanied by faculty evaluation of the information provided by assessment results and must include recommendations and future plans for improving weaknesses, if any, identified by these activities. When evaluating indirect assessment (i.e. surveys), faculty should discuss ways of meaningfully addressing student concerns. Data from these activities may include requests for resource allocations to address deficiencies in staffing and infrastructure identified by assessment that impede student learning.

Colleges, Departments, and Programs are encouraged to work with the Congress Assessment Support Committee to develop best practices in assessment that suit the needs of the latter as well as align with larger, institution-wide assessment activities.

APPENDIX E: Other Evidence of Student Learning

E

Other Evidence/Considerations of Student Learning Success

Programs may find *some* of the following useful when considering student learning success.

- Is the department serving non-majors to the satisfaction of the students and faculty across the campus?
- Are the department's programs fulfilling state, regional, and national needs and expectations?
- Feedback from stakeholders (e.g. employers, practitioners, community, departments or programs for which your courses are pre-requisites, etc.), and how this information is used to improve the curriculum or the teaching of the curriculum.
- Feedback from alumni – are graduates succeeding in graduate school or careers?
- Are the grade distributions (A, B, C, D, F, W) consistent with assessment results?
- What proportion of students are at each academic achievement level in the non-majors courses and in the majors courses?
- What are the structures, policies and procedures for academic advising, placement into introductory courses, and pre-career advising, and what are the student perceptions of these and of course scheduling?
- What is the instructional emphasis towards meeting student learning objectives (e.g. inquiry-oriented, methods-oriented, knowledge content-focused, theory content-focused), and what kinds of pedagogy are used?
- Which courses are lecture, combined lecture/inquiry/discussion, online or hybrid, and labs that are intended [in whole or in part] to gain technical expertise?
- Does the program support collaborative research between students and faculty?
  a. Directed Studies
  b. Student-faculty research projects
  c. Student theses/senior projects
  d. Summer internships
- What are the prevalent student products in courses that are graded, and do these products provide evidence that the ILOs and/or PLOs are being met?
- Which courses are writing intensive? What are the learning objectives for a "writing intensive" course? What do students do differently in writing intensive classes?
- Do science courses require full scientific format papers?

APPENDIX F: Rubric for Information Literacy

	Documentation Conventions	Appropriateness of Sources	Evaluating Sources*	Integrating Sources*
4 (Advanced)	• No errors with regard to citation format (in-text and bibliography) • Properly documents citations and sources	• All sources are relevant and appropriate to the assignment and course • Utilizes a variety of appropriate sources, including peer-reviewed material	• Student demonstrates in-depth examination of information and/or material which coincide with specific needs and goals in the paper • Examination of information shows a clear understanding of the material's criteria for inclusion (i.e. authority, credibility, relevance, timeliness, and accuracy)	• Student synthesizes information with a clear sense of direction/purpose in the assignment • Student draws exceptional conclusions or insights based on the information cited • Use of information leads to highly developed arguments, follow-ups, ideas, appeals, proposals, etc.
3 (Competent)	• In-text citations match bibliography and vice versa. • Minor errors with citation format.	• Most sources are relevant and appropriate to the assignment and course • A majority of the sources are relevant but may not show variety or breadth	• Student demonstrates adequate examination of the material • There may be minor problems with the articulation of appropriateness of material to the assignment	• Student adequately synthesizes information • Student demonstrates some insight but conclusions or interpretations may seem obvious
2 (Emerging)	• Incorrect use of required citation format • May include a bibliography but entries may not correlate to sources used in the paper	• Uses mostly online (non-scholarly) sites • Sources do not appear to be peer-reviewed or from reputable (government or professional organizations) sites	• Student may exhibit some attempt to examine the information using academic criteria • Information and/or sources are questionable	• Student includes information but exhibits problems in synthesizing it into the assignment • Follow-up discussion of material may be minimal, unsubstantiated, and/or unoriginal
1 (Beginning)	• No citations and/or bibliography • Copies or paraphrases without documentation	• No relevant sources • Paper is mainly speculative on the part of the writer	• No effort to examine the information • Little awareness of the quality of the information	• No synthesis of material into the assignment • Student may plagiarize or paraphrase information without citing sources

*** These columns are used to simultaneously assess critical thinking**

APPENDIX F: Rubric for Communication

	Line of Reasoning	Organization and Structure	Content	Technique*	Style & Voice*
4 (Advanced)	• Well-defined thesis that is supported by coherent and relevant arguments • Ideas and main points are based on logical and rational deductions	• Organization is logical, well-planned, and organized; structure enhances the message or argument • Paragraphs are well-developed, and paragraph breaks enhance the main points	• Exhibits original insight into the content • Content illuminates the argument and/or message	• Highly effective use or integration of language (grammar, sentence structure), literary (genre, rhyme scheme) or artistic techniques • Choice of techniques produces a highly original text (e.g. essay, poem, painting) or performance (e,g. speech or dance)	• The medium (e.g. language, body movement, composition, tone) enhances the intended message or purpose • The project exhibits sophisticated and originality • Presentation or text (e.g. essay, short story, speech, painting) makes an impact on the intended audience
3 (Competent)	• Identifiable thesis with some gaps or inconsistencies in reasoning • Some ideas or main points may not be fully integrated into the presentation and essay	• Some organizational problems evident • Paragraphs are developed but exhibit a few inappropriate breaks, or transitions between paragraphs are awkward	• Content is adequately addressed • Content supports main argument but may not be comprehensive	• Recognizable use or integration of language, literary or artistic techniques • Choice of techniques produces a satisfactory text or performance	• The medium is adequate for its intended message or purpose • The project is appropriate for assignment but is predictable • Presentation or text is well-received by the intended audience
2 (Emerging)	• Thesis is weak, unclear or too broad for assignment, but has some relevance to the body of essay or presentation • Ideas or main points are based on unsubstantiated reasons or speculations	• Some attempt at organization but essay or presentation suffers from gaps in logic • Paragraphs are underdeveloped and/or transitions are highly problematic	• Content is only superficially addressed or limited in breadth • Content does not fully support main argument	• Use or integration of technique is awkward or incorrect • Choice of techniques does not appear to enhance the text or performance	• The medium chosen may not fit well with the message intended • The project does not fully address the assignment and/or mimics what has already been done • Presentation or text may not be understood or engaging to the intended audience
1 (Beginning)	• No discernible thesis • Ideas or main points of the presentation or essay are unclear, unsubstantiated, or unrelated	• Lack of organization (line of reasoning is absent) • Transitions between paragraphs are non-existent	• Content is not appropriate to the assignment or minimally used • Content does not relate to the argument being made	• Poor or little use/ integration of the techniques covered in or required by class • Choice of techniques appears random and/or without much thought	• The medium chosen seems inappropriate for the message or may even lack a message or intent • The project is highly unorganized and/or lacks any originality • Presentation or text alienates the audience

*** These columns are used to simultaneously assess critical thinking**

APPENDIX F: Rubric for Quantitative and Scientific Reasoning

	Analysis*	Calculations	Visual Representations of Data and Information*	• Scientific Methodology
4 (Advanced)	• Demonstrates advanced reasoning based on quantifiable information; judgments and conclusions are exceptionally insightful	• Accurately completes calculations for the assignment and presents results clearly and concisely • Chooses appropriate formulas or symbolic models to solve problems and justify choices	• Produces highly effective visual representations of data (e.g. tables) or concepts (e.g. graphs)	• Skillfully and precisely engages in the 6 steps needed in undertaking a science-based approach to gathering and interpreting evidence 1. Indentify problem 2. Formulate a hypothesis 3. Design a project to test hypothesis 4. Collect data 5. Analyze data 6. Draw conclusions based on data • Exhibits highly accurate and exhaustive analysis of data • Produces work that contributes to the field
3 (Competent)	• Demonstrates competent reasoning based on quantifiable information; judgments and conclusions are adequate and reasonable	• Calculations are completed and largely successful • Chooses appropriate formulas or symbolic models to solve problems and justify choices	• Produces competent visual representations of data	• Engages in all 6 steps needed in undertaking a science-based approach to gathering and interpreting data • Produces an analysis of data • Produces work that meets the requirements of the assignments/course
2 (Emerging)	• Demonstrates emerging reasoning based on quantifiable information as exhibited by difficulty in formulating judgments or drawing conclusions	• Calculations contain multiple errors • May not choose the most appropriate or effective formula • May exhibit some problems justifying choices	• Visual representations may reflect minor flaws or inaccuracies	• Engages in the 6 steps but may exhibit problems with a few • Analysis of data may reflect minor inaccuracies of observation • Work may not fully satisfy the requirements of the assignment/course
1 (Beginning)	• Demonstrates beginning reasoning based on quantifiable information as exhibited by difficulty understanding what constitutes quantifiable information, inability to formulate reasonable judgments and/or drawing reasonable conclusions.	• Calculations may be unsuccessful or incomplete • Does not appear to understand the parameters of the appropriate formula • Is unable to select the right formula for the problem (decision-making unclear)	• The method for visually presenting information or concepts is highly inaccurate or imprecise	• Exhibits problems in many if not most of the steps required for the scientific process • Analysis of data is incomplete, inaccurate, or absent • Work does not satisfy the requirements of the assignment/course

*** These columns are used to simultaneously assess critical thinking**

APPENDIX F: Cultural Diversity

	Sense of Place (Engagement) *Honua Hawai'i*	Sense of Humanity (Respect) *Kākou*	Sense of Others (Empathy) *'Oukou/Lākou*	Sense of Self (Humility) *Au/Mākou*
4 ***Hua*** (Advanced—the ripening of the full fruit)	• Demonstrates *kuleana* (responsibility) for and *'ike kū hohonu* (sophisticated understanding) of Hawai'i's uniqueness as the home of indigenous people, immigrants and immigrant descendants. EX: "*The Pāpa'ikou Mill Beach represents an opportunity for dialogue over the complex convergence of private property rights and public access"* or *"The telescopes on Mauna Kea present a quandary for various stakeholders, including scientists and indigenous activists."*	• Expresses a multicultural approach to describing or interacting with others EX: *"I am not a Muslim but I respect a culture's choice in limiting certain types of garments."*	• Demonstrates sophisticated understanding of social and cultural complexities in and/or among different groups. EX: *"I am straight and I see marriage as a union between man and woman, but I can respect the desire by members of the gay community to undertake such a commitment."*	• Critically analyzes how s/he is shaped by diverse cultural and social experiences. EX: "*I may be white, but I am a mixture of different backgrounds (my mother was Irish, my father was English)—and these heritages were often at odds with one another over who could rightfully immigrate to America"* or *"I am a Native Hawaiian who recognizes multiple heritages within my own family, and for this reason, issues of sovereignty are very complicated."*
3 ***Kumu*** (Competent—the forming of the tree)	• Demonstrates *mahalo* (appreciation) for and *'ike pono* (clear understanding) of Hawai'i's uniqueness as the home of indigenous people, immigrants and immigrant descendants. EX: "*Hawai'i's beaches need to be protected from greedy foreign developers"* or *"Given the ancient laws, anyone should have access to any beach at any time they want."*	• Acknowledges diversity but still exhibits some bias. EX: *"Muslims have a right to follow their religious principles, but they need to respect women's rights."*	• Meaningfully expresses social and cultural complexities in and /or among different groups. EX: *"Gays and lesbians have recently indicated a desire to engage in straight practices such as marriage."*	• Meaningfully expresses how s/he is shaped by diverse cultural and social experiences. EX: "*I may be white, but I really am a mixture of different backgrounds (my mother was Irish, my father was English)."* or *"Being Native Hawaiian means recognizing all of my* kupuna, *some of whom are Japanese and Anglo-American."*
2 ***Mole*** (Emerging—roots emerge)	• Exhibits *hoihoi* (interest) in and *'ike kumu* (basic understanding) of Hawai'i's uniqueness. EX: "*Hawai'i's beaches are among the finest in the world but owning one is hard."*	• Limited recognition of one's own biases when describing or interacting with others. EX: "*I think women need to be liberated from the veil in Iran."*	• Identifies (without judgment) differences in and/or among cultures and social groups. EX: *"Why New York would allow gays to marry is beyond me."*	• Identifies differing views on his/her own cultural and social backgrounds. EX: "*Being white in Hawai'i has its challenges because many people see me as just that—a white person."*
1 ***Kupu*** (Beginning—the budding of the plant)	• Exhibits *manakā* (disinterest), *'ike ihi* (superficial understanding) or *'ike hemahema* (faulty understanding) of Hawai'i's people, history and/or landscape. EX: "*If I owned a beach in Hawai'i, I should be able to kick everyone off. It's my private property."*	• Expresses a cultural self-centered approach to describing or interacting with others. EX: "*Muslims obviously hate women for making them wear veils."*	• Descriptions of different cultures and/or social behaviors may reflect some judgmental bias or stereotyping. EX: "*Allowing gays to marry would be a disaster for this nation.*	• Has a limited understanding oh his/her own cultural and social background. EX: "*I am just an American, why can't we all just* get *along?" or other uncritiqued expressions of self.*

The use of these Hawaiian terms comes from the story of Nī'auepo'o, as documented by Kawena Pukui. It describes the stages of the growth of the niu (coconut) tree that is found in a mele oli (chant) from that story. **Note that these examples are taken from actual student work and are meant to help teachers and students engage in a discussion on what constitutes "growth" in cultural diversity/fluency.**

APPENDIX H: Sample Assessment Plan

H

One way to analyze the alignment between curriculum, Institutional Learning Objectives, and courses is by organizing them into matrices. The tables in these appendices are examples that are not meant to be prescriptive. Programs, Departments and Colleges may alter and refine the definitions under each subcategory in the Rubrics in Appendix F. Note: The Learning Goals and Curriculum Matrix below relate to the Mathematics department's traditional track mathematics major and are mapped to the rubrics for Quantitative and Scientific Reasoning. An Assessment Plan for 2013 – 2019 follows.

Outcome 1 (Knowledge) – Demonstrate mastery of the core material Calculus and Linear Algebra.

Outcome 2 (Knowledge) – Demonstrate mastery of the core concepts in Abstract Algebra and Real Analysis.

Outcome 3 (Comprehension) –Identify, compare, and contrast the fundamental concepts within and across the major areas of mathematics, with particular emphasis on Linear Algebra, Abstract Algebra, and Real Analysis.

Outcome 4 (Reasoning) – Use a variety of theorem-proving techniques to prove mathematical results.

Outcome 5 (Communication) – Demonstrate the abilities to read and articulate mathematics verbally and in writing.

Courses for Majors	Require Elective	Outcome 1	Outcome 2	Outcome 3	Outcome 4	Outcome 5
MATH 205\,206 - Calculus I-II	**R**	**I**	**I**	**I**		**I**
MATH 231 - Calculus III	**R**	**D**	**I**	**D**		
MATH 232 - Calculus IV	**R**	**D**		**D**		
Math 300 – Ordinary Diff. Eqns.	**E**			**D**		**D**
Math 301 – Partial Diff Eqns.	**E**			**D**		**D**
MATH 310 - Discrete Math	**R**				**I**	**I**
MATH 311 - Intro to Linear Algebra	**R**	**I,D,M**	**D**	**I**	**D**	**D**
Math 317 – Theory of Eqns.	**E**		**D**	**D**	**D**	**D**
MATH 421 - Probability Thry.	**E**					**D**
MATH 422 - Math. Statistics	**E**					**D**
MATH 431\,432 - Real Analysis	**R**	**M**	**M**	**M**	**M**	**M**
MATH 442 – Geometry II	**E**				**M**	**M**
MATH 454\,455 - Modern Algebra	**R**		**M**	**M**	**M**	**M**
Phil 345 – Symb. Reasoning	**E**				**I**	

I = Introduced, D = Developed & Practiced with Feedback, M = Demonstrated at the Mastery

Math Department Assessment Plan
2013-2019

What follows is the mathematics department's tentative long range assessment plan at the time of its 2013 Program Review. The assessment plan is designed to address the six major aspects of our instructional mission.

1. **Developmental** – preparing underprepared students for success in STEM disciplines and others that require more than nominal mathematics. Our developmental mission is usually satisfied through Math 103 and 104F.
2. Mathematics for **non-science** majors. This part of our mission is usually satisfied through Math 100, 121, and 115.
3. **STEM** mathematics (the Calculus two-year sequence)
4. Preparing students for the **Transition** from the Calculus to higher level mathematics. This part of our mission is usually satisfied through courses such as Math 310, 311, 314, and 317.
5. **Teaching** Track majors. Preparing our teaching track majors for a successful career in secondary teaching is accomplished through a variety of courses such as Math 421-22, 431, 441, 454, 496, and perhaps an as-yet undeveloped capstone experience.
6. **Traditional** Track majors. Preparing our traditional track majors for success in graduate school or mathematics-based careers is accomplished through a variety of courses such as Math 431-32, 454-55, topics courses, and perhaps an as-yet undeveloped capstone experience.

Given the fact that assessment requirements and WASC directions in this area frequently change, as do the missions and personnel in departments, and that assessment efforts provide information that may alter or suggest changes in future assessments, the math department elected to develop a rather loose assessment plan that was intended to assess the major aspects of its mission and involve all faculty members, rather than developing a detailed assessment plan with specific learning outcomes identified. Our plan is to have at least two faculty members take responsibility for leading a meaningful assessment in each of the six instructional areas. The faculty members will not necessarily be required to concurrently teach the courses in which the assessment occurs, if in fact it occurs in the classroom, but will be required to lead the effort, identify the student learning outcomes that will be assessed, design the assessment mechanisms (e.g. embedded problems, rubrics, procedures, etc.) provide leadership and assistance as necessary, and formulate the annual assessment report. Dr. Anderson will be available as a consultant to all efforts, and will attempt to ensure that the assessments are relevant and as a whole provide a comprehensive and cohesive view of how well we achieve our instructional mission in terms of student success.

What follows is a tentative schedule for the assessment efforts. Planning and design should occur during the year prior to each assessment; and it is anticipated that some efforts may continue for more than a single year or may be adjusted and repeated at a later time. Undoubtedly some faculty members will want to assess the effectiveness of their efforts at closing the loop in terms of improving student learning. Thus, this assessment schedule is tentative in its most literal sense.

Assessment Schedule

Year	Mission Area	Faculty
2013-14	STEM – Calculus	Wissman, Lazarevic, New "Calculus Lab" Instructor
2014-15	Traditional Track	Pelayo, Ruiz, Wissman
2015-16	Developmental	New Developmental Instructor, with additional assistance from a TBD volunteer
2016-17	Transition	Figueroa-Centeno, Li
2017-18	Teaching Track	Ivanova, Bernstein
2018-19	Non-Science	Webb, Bernstein, Lazarevic

APPENDIX I: Assessment Report Template[1]

I

Academic Year:
Report Date:
Assessment Project Coordinator:
Faculty Involved:

1. **Student Learning Outcomes Assessed for the present academic year.**

   This section should simply list those SLO's assessed this year. SLO's may be disaggregated into Course Learning Outcomes (CLO's), Institutional Learning Outcomes (ILO's), and/or Program Learning Outcomes (PLO's), which apply primarily to the major.

2. **Curriculum Map**

   This section should identify in which course(s) the assessment was administered. Optionally, it could also include how the SLO's align with other courses in the program; that is, where students encounter opportunities in the curriculum to gain knowledge and skills pertinent to the designated outcomes.

Course Number	SLO#1	SLO#2

3. **Audience**

   This section should include the type of participants (e.g. Math majors, NS majors, non-science majors, etc.), their academic level (e.g. fresh/soph, junior/senior) and the number of participants.

4. **Assessment Details**

   This section should describe how the SLO's were assessed. (This may be done separately for different assessment efforts.) Be sure to include:

   - *What type of assessment was administered (e.g. Direct, indirect, embedded, etc.)*
   - *How was the assessment developed and administered? What information/data was actually collected? (i.e. how was the assessment conducted?)*
   - *How was it analyzed? (e.g. What type of scoring rubrics were used? Who developed the scoring rubrics? Who did the scoring?)*
   - *How was it reported?*

1. Adapted from the form used by Phillips Graduate Institute in 2010-2011.
   Provided by WASC Assessment Workshop, Honolulu, Feb 2012.

APPENDIX I: Assessment Report Template

5. Results and Analysis

This section should include the results of the assessment and an analytic discussion of the results. This should include strengths and/or weaknesses that the assessment uncovered, and other relevant points.

6. Using the results to "Close the Loop"

This section should include:

- *Describe how the results of the assessments were disseminated and to whom, and the review process used.*
- *Discuss how the results will be used to improve existing pedagogical practices and curriculum (e.g. confirm the SLO was successfully met, and/or how the department will generate strategies for modification).*
- *If applicable – discuss program modifications and timeline for implementation.*

Note: whenever curricular changes are made as part of closing the loop, these changes need to be re-assessed to determine if they have achieved the desired result.

APPENDIX J: Annual Progress Report Template

J

1. **Annual Quantitative Data**

   Attach the Pre-Formatted Annual Quantitative Data report received from the Institutional Research Office. Discuss any trends worth noting that were not mentioned in your previous MOU. These might include a significant increase or decrease in the number of majors, courses taught, cap sizes, use of adjuncts, etc. If the program experienced an unexpected faculty retirement or vacancy, this should be noted, along with plans for addressing this new deficiency (e.g. hire replacement, re-allocate resources, adjunct, etc.)

2. **Changes or trends within the department or its mission that require attention not mentioned in your program's MOU.**

3. **Annual progress made by your program on key aspects of your MOU.**

   Include progress made by the program during the year and deficiencies that need to be addressed, if any. Include details of how deficiencies will be addressed. This is an appropriate place to also include any assessment results for the year, or simply attach your program's annual assessment report.

4. **Annual progress made by the administration on key aspects of your MOU.**

   Include progress made by the Administration during the year and deficiencies that need to be addressed, if any. Include suggestions of how deficiencies should be addressed by the administration.

APPENDIX K: Evidence of Faculty Quality

K

Goal 2 of our new strategic plan stresses the need to "Inspire excellence in teaching, research and collaboration." This section highlights how faculty members' teaching expertise, research, and other professional work contribute to the quality and mission of the program and the larger institution. Each category should be documented in explanatory and evaluative narrative.

1. Teaching

   Innovations in teaching and curriculum development not already addressed in assessment data can be discussed here and documented by evidence that the College, Department or Program generates, including and not limited to

   a. Non-traditional delivery such as online courses, reverse lecture, etc. and how the department ensures that student learning outcomes in these courses are consistent with those in traditional classes.
   b. Joint cooperative and combined interdisciplinary efforts with other academic units, departments, and programs.
   c. Service Learning activities.
   d. Faculty involvement in college-wide curriculum planning and governance.
   e. Curriculum development and long-range curriculum planning within the Program.

2. Research

   a. Research, Scholarly and Creative Activities (publications, artistic work or output, presentations, sabbatical productivity);
   b. Grants and /or fellowships ;
   c. Professional practice or development (participation in retreats, specialized training, seminars, etc.);
   d. Specialized credentialing or advanced certification achieved by faculty members.

3. Service

   This section may include work done at the departmental level (i.e. advising, organizing symposiums, internships), college-level (i.e. serving on the Faculty Senate, college strategic planning committee), or institutional (i.e. Faculty Congress and Congress committees, Chancellor's Diversity Committee). Professional memberships and service in the discipline nationally or internationally may also be included here.

4. Local Community

   Such outside activities can indicate how faculty meet program goals, and may be documented by the hours per week, percentage of time, and types of partnerships (i.e. committee events, K-12 engagement, community boards, serving as volunteer or unpaid consultant within community).

5. Faculty Planning and Development

   This section may include the following:

   a. faculty employed (disaggregated by rank)
   b. course releases and buy-outs (grants)
   c. impending retirements and other attrition
   d. faculty promotions
   e. salaries vis-à-vis cost-of-living adjustments
   f. salary comparisons with peer institutions
   g. faculty development activities – how does the department evaluate and help faculty improve their academic endeavors, thereby enabling them to succeed in tenure, promotion, and merit reviews
   h. awards
   i. schedule of future sabbaticals
   j. anticipated faculty needs

APPENDIX L: External Review

L

External Reviewer/Consultant

- During the Spring or Summer prior to the review-year the program submits to the VCAA a list of no more than three names of potential external reviewers, with CV or other supporting documentation as to the qualifications of each. A formal letter of invitation is sent to the reviewer by the VCAA, and all fees and travel expenses for the external reviewer are paid by the VCAA's office.

- Identifying an External Reviewer/Consultant: An external reviewer is a recognized expert in the field whose primary responsibilities are to identify strengths and weaknesses and show program faculty how they might develop the former and address the latter. The objective is primarily constructive guidance. Some fields have organizations that assign or provide recommendations for reviewers. Ideally an external reviewer is an expert from one of UHH's peer institutions. Programs can also consult with the Academic Program Review Advisory Committee for assistance in identifying a suitable reviewer.

- An option is for one reviewer/consultant to work with several departments within a division. The consultant is appointed by the VCAA from a list of qualified persons recommended by department(s), or selected by a professional organization approved by the VCAA.

- The reviewer/consultant will study the program's self study report in advance of the visit. During the visit, he/she will consult with the faculty on curriculum and instructional resources, talk with students and the dean, and visit classes, physical facilities, the library, and other support units.

- She/he will help the department to clarify its goals, as needed, and suggest more efficient or more effective ways of achieving departmental goals and mission, including more efficient management of department resources; and suggest future initiatives.

- She/he will submit a written report to the department, ideally before leaving the campus but no more than one week later. The consultant's report and the program's [optional] response will be included in the program review final report.

APPENDIX M: References

M

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