THE UNIVERSITY OF
ALABAMA®

Standing Requirements

◈ Mission Statement

The Seafaring BS program is dedicated to quality instruction, research, and scholarship in the field of nautical travel.

We strive to produce graduates with the skills and knowledge to succeed as sailors, teachers, and researchers.

◈ Student Learning Outcomes

Seafaring BS SLOs

Outcome	
Outcome	**Mapping**
SLO 1 - Comprehension Graduating students recognize and summarize key developments and eras in the history of human travel by sea.	**USA- Bloom's Taxonomy:** Objective 2
SLO 2 - Navigation Skills Graduating students accurately chart courses and travel times using traditional navigation techniques (e.g., paper charts).	**USA- Bloom's Taxonomy:** Objective 3
SLO 3 - Problem-Solving Skills Graduating students develop appropriate solutions to practical seafaring problems in a timely manner.	**USA- Bloom's Taxonomy:** Objective 5

◈ Operational Outcomes

No outcome sets attached.

◈ Curriculum Map

Active Curriculum Maps ⚙

⊚ **Seafaring BS 2015** (See appendix)
Alignment Set: Seafaring BS SLOs
Created: 05/05/2016 7:46:07 am CST
Last Modified: 08/09/2016 1:56:14 pm CST

Map created through review of syllabi and validation review by all full-time faculty

◈ Archived Reports (Assessment Reports from WEAVE)

File Attachments:

	Outcome		
	SLO 1 - Comprehension Graduating students recognize and summarize key developments and eras in the history of human travel by sea.	**SLO 2 - Navigation Skills** Graduating students accurately chart courses and travel times using traditional navigation techniques (e.g., paper charts).	**SLO 3 - Problem-Solving Skills** Graduating students develop appropriate solutions to practical seafaring problems in a timely manner.
Core Courses and Learning Activities			
SEA 101 Introduction to Seafaring	I	I	
SEA 102 History of Seafaring	R		I
SEA 201 Vessels I	R	R	
SEA 202 Vessels II	R		
SEA 312 Navigation		M	R
SEA 330 Applied Seafaring I	M	A	R
SEA 331 Applied Seafaring II	M+A		M+A
SEA 490 Senior Internship			
Electives			
SEA 381 Pirates: Fact and Fiction	R		
SEA 451 Seafaring in Literature	R		
SEA 453 Sailing Practicum		R	R

Legend: **I** Introduced   **R** Reinforced   **M** Mastered   **M+A** Mastered + Assessment Point   **A** Assessment Point

Last Modified: 08/09/2016 01:56:14 PM

2015-2016 Assessment Cycle

◈ **Assessment Plan**

Mission Statement

The Seafaring BS program is dedicated to quality instruction, research, and scholarship in the field of nautical travel.

We strive to produce graduates with the skills and knowledge to succeed as sailors, teachers, and researchers.

Measures

Seafaring BS SLOs

Outcome

SLO 1 – Comprehension

Graduating students recognize and summarize key developments and eras in the history of human travel by sea.

▼ **Measure:** SEA 331 Essay
Direct - Student Artifact

Details/Description (what, when, where, how): In SEA 331, students are required to submit a research paper of 8-10 pages on a particular development of significance in the history of sea travel. The development should be explained in detail, with references to evidence/sources, and placed in historical context. All papers from SEA majors are archived each semester. Every other year, a sample of papers (at least 25) is rated by the program's assessment committee, who receive training on the faculty-developed rubric (adapted from VALUE rubric, attached) as well as anchor papers. A random, representative subset of papers are rated by multiple reviewers so that inter-rater agreement can be gauged.

Expectation of Achievement: 90% of samples will receive an average rating of 3 ("competent") or 4 ("excellent") on the analytic 4-point rubric.

Schedule for Data Collection/Evaluation (e.g., every 2 years): Samples are gathered each time SEA 331 is offered. Ratings are done every other year (summer 2015, summer 2017, ...).

Key Personnel (e.g., for collecting or rating data): Instructors teaching SEA 331 submit de-identified samples in an electronic format (every semester). The assessment coordinator collects the samples over time and organizes the biennial rating sessions for the assessment committee, which typically consists of 2-3 faculty members.

Supporting Attachments:

📄 Program Rubric for SEA 331 Essays (Adobe Acrobat Document)
Adapted from AAC&U VALUE rubric for written communication

SLO 2 - Navigation Skills

Graduating students accurately chart courses and travel times using traditional navigation techniques (e.g., paper charts).

▼ **Measure:** SEA 312 Navigation Exercise
Direct - Student Artifact

Details/Description (what, when, where, how): As part of the SEA 312 final project, students must independently complete a navigation exercise (attached) based on paper charts and limited information. Assessment data is gathered in conjunction with grading, as the responses are objectively scored based on (1) accuracy of charted course (10 possible points), and (2) accuracy of estimated travel time given conditions (5 possible points). Faculty developed the scoring criteria and guidelines in 2014.

Expectation of Achievement: 90% of responses will receive at least 80% of points on each criterion (charted course: 8/10; time estimate: 4/5).

Schedule for Data Collection/Evaluation (e.g., every 2 years): All data from SEA majors is submitted and reviewed annually.

Key Personnel (e.g., for collecting or rating data): Instructors teaching SEA 312 submit responses and scores from the navigation exercise at the end of the semester. The assessment committee reviews and summarizes results and error patterns each summer.

<mark>Supporting Attachments:</mark>

📎 SEA 312 Navigation Exercise (Word Document (Open XML))

navigation exercise and scoring guidelines

SLO 3 - Problem-Solving Skills

Graduating students develop appropriate solutions to practical seafaring problems in a timely manner.

▼ **Measure:** SEA 331 Midterm Question (Free Response)
Direct - Exam

Details/Description (what, when, where, how): As part of the timed SEA 331 midterm, students must explain in detail (1-2 pages) what actions they would take in a specified danger-at-sea scenario. The scenario is changed every year to minimize exposure effects. Responses from all SEA majors are archived each semester. Every other year, a random, representative sample of responses (at least 25) are rated by the program's assessment committee, who receive training on the associated assessment rubric (adapted from VALUE rubric, attached). A subset of responses receives ratings from multiple reviewers so that inter-rater agreement can be gauged.

<mark>Expectation of Achievement:</mark> 90% of evaluated responses receive an average rating of 3 ("competent") or 4 ("excellent") on the analytic 4-point rubric.

Schedule for Data Collection/Evaluation (e.g., every 2 years): Samples are gathered each time SEA 331 is offered. Ratings are done every other year (summer 2016, summer 2018, ...).

<mark>Key Personnel</mark> **(e.g., for collecting or rating data):** Instructors teaching SEA 331 submit de-identified responses (every semester). The assessment coordinator collects the samples over time and organizes the biennial rating sessions for the assessment committee, which typically consists of 2-3 faculty members.

Supporting Attachments:

📄 Program Rubric for Problem Solving (Adobe Acrobat Document)

Adapted from AAC&U VALUE rubric for problem solving

▼ <mark>**Measure:** University Graduation Survey</mark>
<mark>Indirect - Survey</mark>

Details/Description (what, when, where, how): The University administers an exit survey to all graduating seniors. OIRA disaggregates and shares the results by major. Question 17 asks students to rate their problem-solving skills on a 5-point scale ranging from Very Weak (1) to Very Strong (5).

Expectation of Achievement: 90% of students will rate their problem-solving skills as Strong or Very Strong.

Schedule for Data Collection/Evaluation (e.g., every 2 years): Results are disseminated and reviewed by program faculty annually (early Fall).

Key Personnel (e.g., for collecting or rating data): The assessment coordinator shares results with faculty at the Fall program assessment meeting.

◈ <mark>Assessment Findings</mark>

Finding per Measure

Seafaring BS SLOs

Outcome

SLO 1 - Comprehension

Graduating students recognize and summarize

▼ **Measure:** <mark>SEA 331 Essay</mark>
Direct - Student Artifact

key developments and eras in the history of human travel by sea.

Details/Description (what, when, where, how): In SEA 331, students are required to submit a research paper of 8-10 pages on a particular development of significance in the history of sea travel. The development should be explained in detail, with references to evidence/sources, and placed in historical context. All papers from SEA majors are archived each semester. Every other year, a sample of papers (at least 25) is rated by the program's assessment committee, who receive training on the faculty-developed rubric (adapted from VALUE rubric, attached) as well as anchor papers. A random, representative subset of papers are rated by multiple reviewers so that inter-rater agreement can be gauged.

Expectation of Achievement: 90% of samples will receive an average rating of 3 ("competent") or 4 ("excellent") on the analytic 4-point rubric.

Schedule for Data Collection/Evaluation (e.g., every 2 years): Samples are gathered each time SEA 331 is offered. Ratings are done every other year (summer 2015, summer 2017, ...).

Key Personnel (e.g., for collecting or rating data): Instructors teaching SEA 331 submit de-identified samples in an electronic format (every semester). The assessment coordinator collects the samples over time and organizes the biennial rating sessions for the assessment committee, which typically consists of 2-3 faculty members.

Supporting Attachments:

📕 Program Rubric for SEA 331 Essays (Adobe Acrobat Document)

Adapted from AAC&U VALUE rubric for written communication

Findings for SEA 331 Essay

Summary of Findings: Not assessed in 2015-16. Work samples are evaluated in odd-numbered years. In Summer 2017, the assessment committee will convene to evaluate samples using the program rubric developed for that purpose.

Analysis/Interpretation of Findings:

Impact of Previous Actions on Results:

SLO 2 - Navigation Skills

Graduating students accurately chart courses and travel times using traditional navigation techniques (e.g., paper charts).

▼ **Measure:** SEA 312 Navigation Exercise
Direct - Student Artifact

Details/Description (what, when, where, how): As part of the SEA 312 final project, students must independently complete a navigation exercise (attached) based on paper charts and limited information. Assessment data is gathered in conjunction with grading, as the responses are objectively scored based on (1) accuracy of charted course (10 possible points), and (2) accuracy of estimated travel time given conditions (5 possible points). Faculty developed the scoring criteria and guidelines in 2014.

Expectation of Achievement: 90% of responses will receive at least 80% of points on each criterion (charted course: 8/10; time estimate: 4/5).

Schedule for Data Collection/Evaluation (e.g., every 2 years): All data from SEA majors is submitted and reviewed annually.

Key Personnel (e.g., for collecting or rating data): Instructors teaching SEA 312 submit responses and scores from the navigation exercise at the end of the semester. The assessment committee reviews and summarizes results and error patterns each summer.

Supporting Attachments:

📎 SEA 312 Navigation Exercise (Word Document (Open XML))

navigation exercise and scoring guidelines

Findings for SEA 312 Navigation Exercise

Summary of Findings: 20 students submitted the 312 project this year (Fall and Spring sections combined). 90% (18) met expectations on Q1 (charted course), which indicated good levels of competency. Only 75% met expectations on Q2 (travel time estimate), warranting further investigation.

Analysis/Interpretation of Findings: All work samples were reviewed and analyzed for error

patterns. Two students received fewer than 8 points out of 10 on Q1 (6, 7); one neglected to account for tides, and the other charted an unnecessarily roundabout and safe route. Q2 was of more concern. Although there were no markedly poor responses, 5 students received only 3 of 5 points. In each case, travel estimates were too low because either the wind or the tides were not taken into account.

Impact of Previous Actions on Results:

Substantiating Evidence:

📎 2015-16 Navigation Data from SEA 312 Project (Excel Workbook (Open XML))

These Findings are associated with the following Actions:

Estimating travel time
(Action Plan; 2015-2016 Assessment Cycle)

SLO 3 - Problem-Solving Skills

Graduating students develop appropriate solutions to practical seafaring problems in a timely manner.

▼ **Measure:** SEA 331 Midterm Question (Free Response)
Direct - Exam

Details/Description (what, when, where, how): As part of the timed SEA 331 midterm, students must explain in detail (1-2 pages) what actions they would take in a specified danger-at-sea scenario. The scenario is changed every year to minimize exposure effects. Responses from all SEA majors are archived each semester. Every other year, a random, representative sample of responses (at least 25) are rated by the program's assessment committee, who receive training on the associated assessment rubric (adapted from VALUE rubric, attached). A subset of responses receives ratings from multiple reviewers so that inter-rater agreement can be gauged.

Expectation of Achievement: 90% of evaluated responses receive an average rating of 3 ("competent") or 4 ("excellent") on the analytic 4-point rubric.

Schedule for Data Collection/Evaluation (e.g., every 2 years): Samples are gathered each time SEA 331 is offered. Ratings are done every other year (summer 2016, summer 2018, ...).

Key Personnel (e.g., for collecting or rating data): Instructors teaching SEA 331 submit de-identified responses (every semester). The assessment coordinator collects the samples over time and organizes the biennial rating sessions for the assessment committee, which typically consists of 2-3 faculty members.

Supporting Attachments:

📄 Program Rubric for Problem Solving (Adobe Acrobat Document)
Adapted from AAC&U VALUE rubric for problem solving

Findings for SEA 331 Midterm Question (Free Response)

Summary of Findings: Overall results were below expectations, as only 57% of samples (17/30) received an average score of 3 or better across the rubric elements. By element, the mean score and % receiving a 3 or 4 were as follows: Define - 3.1, 90%; Identify - 2.9, 80%; Propose - 3.1, 87%; Implement - 2.6, 63%.

Analysis/Interpretation of Findings: Regarding the 13 responses that were not rated "competent" overall, it was clear that at least 8 of those students ran out of time (the task was strictly timed at 20 minutes at the end of the midterm). Thus the results were somewhat misleading, given the good performance (80%+) across the first 3 elements of the task (Define, Identify, Propose). It's true that this SLO specifies that students develop solutions "in a timely manner." However, some faculty pointed out that implementing solutions in a timely way isn't the same as writing about them efficiently. Thus we see potential avenues for improvement in student efficiency but also in assessment methods.

Impact of Previous Actions on Results:

Substantiating Evidence:

📎 SEA 331 Problem-Solving Results (Excel Workbook (Open XML))

These Findings are associated with the following Actions:

Adjustment of Assessment Tool
(Action Plan; 2015-2016 Assessment Cycle)

Measure: University Graduation Survey
Indirect - Survey

Details/Description (what, when, where, how): The University administers an exit survey to all graduating seniors. OIRA disaggregates and shares the results by major. Question 17 asks students to rate their problem-solving skills on a 5-point scale ranging from Very Weak (1) to Very Strong (5).

Expectation of Achievement: 90% of students will rate their problem-solving skills as Strong or Very Strong.

Schedule for Data Collection/Evaluation (e.g., every 2 years): Results are disseminated and reviewed by program faculty annually (early Fall).

Key Personnel (e.g., for collecting or rating data): The assessment coordinator shares results with faculty at the Fall program assessment meeting.

Findings for University Graduation Survey

No Findings Added

Overall Reflection

Regarding student learning, we assessed two outcomes this year. Student work was generally good, but issues were noted for both SLO 2 (estimates of nautical travel time) and SLO 3 (students running out of time on the embedded exam question). The former issue can be addressed via reinforcement in the curriculum, while the latter issue may be solved by adjusting the assessment method (time limits). As usual, we compiled assessment results in the summer and generated action plans with departmental faculty at the Fall program assessment meeting.

Action Plan

Mission Statement

The Seafaring BS program is dedicated to quality instruction, research, and scholarship in the field of nautical travel.

We strive to produce graduates with the skills and knowledge to succeed as sailors, teachers, and researchers.

Actions

Seafaring BS SLOs

Outcome

SLO 2 - Navigation Skills

Graduating students accurately chart courses and travel times using traditional navigation techniques (e.g., paper charts).

Action: Estimating travel time

This Action is associated with the following Findings

Findings for SEA 312 Navigation Exercise
(Assessment Plan and Assessment Findings; 2015-2016 Assessment Cycle)

Summary of Findings: 20 students submitted the 312 project this year (Fall and Spring sections combined). 90% (18) met expectations on Q1 (charted course), which indicated good levels of competency. Only 75% met expectations on Q2 (travel time estimate), warranting further investigation.

Action, Initiative, or Strategy for Improvement (details): Faculty reviewed this cycle's findings and agreed that students would benefit from additional practice estimating voyage length (travel time), taking into account wind conditions and tides.

Implementation Plan (timeline): Starting in Fall 2017, instructors in SEA 201 will create an additional assignment to provide students with more practice and feedback in estimating travel time.

Key/Responsible Personnel: All 201 instructors will collaborate this summer to create an assignment whose details can be tweaked for specific sections and to maintain assignment integrity from year to year.

Budget approval required? (describe):

Budget request amount: $0.00

Priority: High

SLO 3 - Problem-Solving Skills

Graduating students develop appropriate solutions to practical seafaring problems in a timely manner.

▼ **Action:** Adjustment of Assessment Tool

This Action is associated with the following Findings

Findings for SEA 331 Midterm Question (Free Response)
(Assessment Plan and Assessment Findings; 2015-2016 Assessment Cycle)

Summary of Findings: Overall results were below expectations, as only 57% of samples (17/30) received an average score of 3 or better across the rubric elements. By element, the mean score and % receiving a 3 or 4 were as follows: Define - 3.1, 90%; Identify - 2.9, 80%; Propose - 3.1, 87%; Implement - 2.6, 63%.

Action, Initiative, or Strategy for Improvement (details): After reviewing results and work samples from this year's assessment of SLO3, program faculty decided to allot more time specifically for the danger-at-sea item on the 331 midterm. It appeared that several students ran out of time before they could answer the final question.

Implementation Plan (timeline): Beginning in Fall 2017, the item will be administered separately from the rest of the exam, with a 20-minute time limit. We will review next year's work to determine whether Implement scores increase; if not, the issue could require a pedagogical adjustment.

Key/Responsible Personnel: Instructors of 331 will implement the change in test administration.

Budget approval required? (describe):

Budget request amount: $0.00

Priority: Medium